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](https://www.bpa.gov/transmission/Reports/TransmissionAvailability/Pages/default.aspx)
# Outage Summary on OASIS

## BPAT Outage Summary

Path: N_ECOL_S>N

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

<table>
<thead>
<tr>
<th>Outage ID</th>
<th>Start</th>
<th>Stop</th>
<th>MW Limit</th>
<th>Priority</th>
<th>Last Updated</th>
<th>Reason for Path Reduction</th>
<th>Event ID</th>
</tr>
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<tbody>
<tr>
<td>241257</td>
<td>2015-11-01 00:00 PD</td>
<td>2025-01-01 00:00 PS</td>
<td>2800</td>
<td>2800</td>
<td>2019-09-19 14:25:23 PD</td>
<td>SCSTER &amp; N_ECOL Long-term limit</td>
<td>BPAT44295</td>
</tr>
<tr>
<td></td>
<td>2025-01-01 00:00 PS</td>
<td>2026-01-01 00:00 PS</td>
<td>2800</td>
<td>2800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2026-01-01 00:00 PS</td>
<td>2028-01-01 00:00 PS</td>
<td>2800</td>
<td>2800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>304740</td>
<td>2019-11-01 00:00 PD</td>
<td>2020-06-01 00:00 PD</td>
<td>2103</td>
<td>Short-Term Seasonal Default</td>
<td>2019-10-18 06:32:40 PD</td>
<td>NOEL-Winter Seasonal Limit for 2020</td>
<td>BPAT75904</td>
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<tr>
<td>312925</td>
<td>2020-06-01 00:00 PD</td>
<td>2020-11-01 00:00 PD</td>
<td>2067</td>
<td>Short-Term Seasonal Default</td>
<td>2019-10-18 08:35:30 PD</td>
<td>NOEL-Summer Seasonal Limit for 2020</td>
<td>BPAT79612</td>
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<tr>
<td>318180</td>
<td>2020-11-01 00:00 PD</td>
<td>2021-05-01 00:00 PD</td>
<td>2103</td>
<td>Short-Term Seasonal Default</td>
<td>2019-10-18 09:38:15 PD</td>
<td>NOEL - WINTER 2021 SEASONAL LIMIT</td>
<td>BPAT82017</td>
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<tr>
<td>321338</td>
<td>2019-12-05 16:00 PS</td>
<td>2019-12-30 00:00 PS</td>
<td>2245</td>
<td>Studied</td>
<td>2019-12-20 13:37:48 PS</td>
<td>BPA - VARIOUS EQUIPMENT OUTAGES (SUM 691 RS)</td>
<td>BPAT83963</td>
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<td>2019-12-30 00:00 PS</td>
<td>2020-01-14 00:00 PS</td>
<td>2245</td>
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<td>32232B</td>
<td>2020-01-14 00:00 PS</td>
<td>2020-03-01 00:00 PS</td>
<td>2245</td>
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<td>2020-01-09 12:08:14 PS</td>
<td>BPA - VARIOUS OUTAGES (SUM 634 R1)</td>
<td>BPAT83723</td>
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</table>

For questions or comments, please contact TDL 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](https://www.bpa.gov/transmission/Reports/Pages/Proposed-Outages.aspx)
## Final Outage Plan

- Sample of March 2020 Final Outage Plan

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

# 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))

<table>
<thead>
<tr>
<th>Out Datetime</th>
<th>In Datetime</th>
<th>Name</th>
<th>Voltage (kV)</th>
<th>Duration (minutes)</th>
<th>Outage Type</th>
<th>Cause Dispatch</th>
<th>Responsible System Dispatch</th>
<th>MW Intrep</th>
<th>O&amp;M District</th>
<th>Outage ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/11/2020 04:36</td>
<td>01/11/2020 04:36</td>
<td>Clayton: Inland P-L 115kV Feeder 1</td>
<td>115.0</td>
<td>0</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>Unknown</td>
<td>SPK</td>
<td>213272</td>
</tr>
<tr>
<td>01/11/2020 04:36</td>
<td>01/11/2020 04:36</td>
<td>Colbert: Avista Corp 115kV Feeder 1</td>
<td>115.0</td>
<td>0</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>Unknown</td>
<td>SPK</td>
<td>213273</td>
</tr>
<tr>
<td>01/11/2020 04:36</td>
<td>01/11/2020 04:36</td>
<td>Deer Park: Avista Corp 115kV Feeder 1</td>
<td>115.0</td>
<td>0</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>Unknown</td>
<td>SPK</td>
<td>213274</td>
</tr>
<tr>
<td>01/11/2020 04:36</td>
<td>01/11/2020 04:36</td>
<td>Half Moon: Inland P-L 115kV Feeder 1</td>
<td>115.0</td>
<td>0</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>Unknown</td>
<td>SPK</td>
<td>213275</td>
</tr>
<tr>
<td>01/11/2020 04:36</td>
<td>01/11/2020 04:36</td>
<td>Loon Lake: Avista Corp 115kV Feeder 1</td>
<td>115.0</td>
<td>0</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>Unknown</td>
<td>SPK</td>
<td>213276</td>
</tr>
<tr>
<td>01/11/2020 04:36</td>
<td>01/11/2020 04:36</td>
<td>Mead: Avista Corp 115kV Feeder 1</td>
<td>115.0</td>
<td>0</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>Unknown</td>
<td>SPK</td>
<td>213277</td>
</tr>
<tr>
<td>01/11/2020 04:36</td>
<td>01/11/2020 04:36</td>
<td>Milan: Avista Corp 115kV Feeder 1</td>
<td>115.0</td>
<td>0</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>Unknown</td>
<td>SPK</td>
<td>213278</td>
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<tr>
<td>01/11/2020 04:36</td>
<td>01/11/2020 04:36</td>
<td>Milan: Inland P-L 13.8kV Feeder 1 by Avista Corp</td>
<td>13.8</td>
<td>0</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>Unknown</td>
<td>SPK</td>
<td>213279</td>
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<tr>
<td>01/11/2020 04:03</td>
<td>01/11/2020 04:04</td>
<td>Clayton: Inland P-L 115kV Feeder 1</td>
<td>115.0</td>
<td>1</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>Unknown</td>
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<td>213259</td>
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<tr>
<td>01/11/2020 04:03</td>
<td>01/11/2020 04:04</td>
<td>Colbert: Avista Corp 115kV Feeder 1</td>
<td>115.0</td>
<td>1</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>Unknown</td>
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<td>213260</td>
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<tr>
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<td>01/11/2020 04:04</td>
<td>Deer Park: Avista Corp 115kV Feeder 1</td>
<td>115.0</td>
<td>1</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>Unknown</td>
<td>SPK</td>
<td>213261</td>
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<tr>
<td>01/11/2020 04:03</td>
<td>01/11/2020 04:04</td>
<td>Half Moon: Inland P-L 115kV Feeder 1</td>
<td>115.0</td>
<td>1</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>Unknown</td>
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<td>213262</td>
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<tr>
<td>01/11/2020 04:03</td>
<td>01/11/2020 04:04</td>
<td>Half Moon: Tum Tum section of Bell-Addy No 1 115kV line</td>
<td>115.0</td>
<td>1</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>Unknown</td>
<td>SPK</td>
<td>213263</td>
</tr>
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</table>

## Transmission Line Interruptions (38 outage(s))

<table>
<thead>
<tr>
<th>Out Datetime</th>
<th>In Datetime</th>
<th>Name</th>
<th>Voltage (kV)</th>
<th>Duration (minutes)</th>
<th>Outage Type</th>
<th>Cause Dispatch</th>
<th>Responsible System Dispatch</th>
<th>O&amp;M District(s)</th>
<th>Transmission Owner NERC TADS</th>
<th>Outage ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/11/2020 04:36</td>
<td>01/11/2020 04:36</td>
<td>Bell-Addy No 1 115kV line</td>
<td>115.0</td>
<td>0</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>SPK</td>
<td>BPA</td>
<td>213271</td>
</tr>
<tr>
<td>01/11/2020 04:36</td>
<td>01/11/2020 04:36</td>
<td>Chief Joseph-Monroe No 1 500kV line</td>
<td>300.0</td>
<td>still out</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>WEN SNO</td>
<td>BPA</td>
<td>213270</td>
</tr>
<tr>
<td>01/11/2020 04:03</td>
<td>01/11/2020 04:04</td>
<td>Clayton tap to Bell-Addy No 1 115kV line</td>
<td>115.0</td>
<td>1</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>SPK</td>
<td>BPA</td>
<td>213269</td>
</tr>
<tr>
<td>01/11/2020 04:03</td>
<td>01/11/2020 04:04</td>
<td>Clayton-Loon Lake section of Bell-Addy No 1 115kV line</td>
<td>115.0</td>
<td>1</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>SPK</td>
<td>BPA</td>
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<td>01/11/2020 04:03</td>
<td>01/11/2020 04:04</td>
<td>Colbert tap to Bell-Addy No 1 115kV line</td>
<td>115.0</td>
<td>1</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>SPK</td>
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<tr>
<td>01/11/2020 04:03</td>
<td>01/11/2020 04:04</td>
<td>Colbert-Half Moon section of Bell-Addy No 1 115kV line</td>
<td>115.0</td>
<td>1</td>
<td>Auto</td>
<td>Unknown</td>
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<td>Deer Park tap to Bell-Addy No 1 115kV line</td>
<td>115.0</td>
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<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
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<td>Half Moon: Inland P-L 115kV Feeder 1</td>
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<td>01/11/2020 04:04</td>
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<td>SPK</td>
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<td>01/11/2020 04:04</td>
<td>Loon Lake tap to Bell-Addy No 1 115kV line</td>
<td>115.0</td>
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<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>SPK</td>
<td>BPA</td>
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<td>115.0</td>
<td>3</td>
<td>Auto</td>
<td>Unknown</td>
<td>BPA</td>
<td>SPK</td>
<td>BPA</td>
<td>213269</td>
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</table>
Further Questions or Comments

- Send emails to TechForum@bpa.gov