

Redispatch and Curtailment BP

- 1:1 Path Curtailments -

05/18/2023



History

On April 29, 2022, BPA revised its Redispatch and Curtailment Procedures V14 Business Practice to clarify its procedures for 1:1 path curtailments, and requested customer comment.

BPA subsequently hosted a meeting on May 9, 2022 to discuss the proposed revisions. BPA received two sets of written comments on the proposed revisions.

- The proposed business practice revisions were intended to continue with BPA's commitment to provide transparency to its customers. Proposed amendments reflected the standing default implementation of OATI Curtailment Manager.

Business Practice Amendment

Category A - Clarification

Current BP Language

Redispatch and Curtailment BP V13

“ ...

D4. BPA Transmission Services will curtail schedules pro-rata according to NERC Curtailment priority

...”

V14 BP Retracted Language

Redispatch & Curtailment BP V14 (Retracted)

“ ...

D.4 BPA Transmission Services will implement the following four-step process for Curtailments on managed 1:1 paths:

Step 1 - TSRs receive reliability limits on the path pro rata by NERC priority until the sum of TSR rights equal the path's Operating Limit.

Step 2 – E-Tags are reduced to the reliability limit of their enabling TSRs.

Step 3 – Any sum of e-Tag over cut is redistributed back to e-Tags pro rata by NERC priority until the sum of e-Tags equals the path's Operating Limit.

Step 4 – Implement E-Tag Curtailments based on the outcome of Steps 1 thru 3.

D.5 For Curtailments on managed flow-based paths (and when managing flows on NWACI and Satsop), BPA Transmission Services will curtail schedules pro rata according to NERC Curtailment priority.

...”



Business Practice Amendment (Cont.)

Comments received requested further clarity and raised concerns relating to BPA's procedures for managing curtailments on managed 1:1 paths.

BPA committed to forming a team of subject matter experts to evaluate the existing procedures to manage curtailments on these paths. This evaluation would include:

- Review of implicated policies
- Identification of possible areas of discrepancy between BPA's tariff and current curtailment procedures
- Evaluation of alternative processes for management of these paths
- An industry scan

BPA committed to holding a customer workshop no later than six months from the date of the retraction notice to share the status of the preliminary evaluation and receive customer input.

Example 1: Status Quo – Full PTP Schedule Utilization

Risk to NT customer Identified

Example Details
Curtailed to TTC
500

Customer	Service Type	Initial TSR Limit	Initial Schedules	Initial Calculation TSR limit	Reliability Limit	Post Reliability Schedules
Customer 1	NT	100	120	100	83.33	120
Customer 2	NT	100	100	100	83.33	100
Customer 3	NT	100	85	100	83.33	85
Customer 4	PTP	100	100	100	83.33	100
Customer 5	PTP	100	100	100	83.33	100
Customer 6	PTP	100	100	100	83.33	100
		600	605	600	500.00	605

Status Quo - Curtail on Transmission Rights									
Step 1 TSR Limits	Step 2 TSR Limit based curtailment		Step 3 TSR Limit Over-curtailment return	Step 4 E-Tag curtailment	Totals				
TSR Limit	E-Tag amended Value	Curtailment	Return MW	Remaining curtailment	Resulting Flow	Schedules Based Impact	Impact %	Rights Based Impact	Impact %
83.33	83	37	1.0	0	84	36	36%	36	36%
83.33	83	17	0.0	0	83	17	17%	17	17%
83.33	83	2	0.0	0	83	2	2%	17	17%
83.33	83	17	0.0	0	83	17	17%	17	17%
83.33	83	17	0.0	0	83	17	17%	17	17%
83.33	83	17	0.0	0	83	17	17%	17	17%
500	498	107	1.0	0	499	106		121	20%

Example 1(Cont.): Status Quo – PTP Voluntary Reductions

Risk to NT customer Identified

Example Details
Curtailed to TTC
500

Customer	Service Type	Initial TSR Limit	Initial Schedules	Initial Calculation TSR limit	Reliability Limit	Post Reliability Schedules
Customer 1	NT	100	120	100	83.33	120
Customer 2	NT	100	100	100	83.33	100
Customer 3	NT	100	85	100	83.33	85
Customer 4	PTP	100	100	100	83.33	100
Customer 5	PTP	100	100	100	83.33	80
Customer 6	PTP	100	100	100	83.33	60
		600	605	600	500.00	545

Status Quo - Curtail on Transmission Rights									
Step 1 TSR Limits	Step 2 TSR Limit based curtailment		Step 3 TSR Limit Over-curtailment return	Step 4 E-Tag curtailment	Totals				
TSR Limit	E-Tag amended Value	Curtailment	Return MW	Remaining curtailment	Resulting Flow	Schedules Based Impact	Impact %	Rights Based Impact	Impact %
83.33	83	37	14.0	0	97	23	23%	23	23%
83.33	83	17	7.0	0	90	10	10%	10	10%
83.33	83	2	1.0	0	84	1	1%	16	16%
83.33	83	17	7.0	0	90	10	10%	10	10%
83.33	80	0	0.0	0	80	0	0%	20	20%
83.33	60	0	0.0	0	60	0	0%	40	40%
500	472	73	29.0	0	501	44		119	20%

Alternative Review

Status Quo: Curtail by TSR Limits & E-Tags.

Maintain current OATI calculation and below process, Update BP to mirror current processes:

Four-step process for Curtailments on managed 1:1 paths

1. *TSR receive reliability limits on the path pro rata by NERC curtailment priority until the sum of TSR rights equal the path's operating limit*
2. *E-tags are reduced to the reliability limit of their enabling TSR*
3. *Any sum of e-Tag over cut is redistributed back to e-Tags pro rata by NERC curtailment priority until the sum of e-Tags equals the path's operating limit*
4. *Implement e-Tag curtailments based on outcome of Step 1 to 3*

Pros:

- Current system process (No changes required – last amended in 2014)

Cons:

- Maintains risk of uneven impact of curtailment to NT customers (Described above)
- Rights based curtailment calculation in step one may not align with Tariff
 - “All Curtailments will be made on a non-discriminatory basis, however, Non-Firm Point-To-Point Transmission Service shall be subordinate to Firm Transmission Service.” BPA OATT 10-01-2021 13.6
 - “... Transmission Provider determines that it is necessary to curtail scheduled deliveries, the Parties shall curtail such schedules in accordance with the Network Operating Agreement...” OATT 10-01-2021 33.4
- NT Customer Dissatisfaction
- Does not align with previous FERC Ruling/ Guidance pointing TP to use E-Tag (schedules) based curtailments
- Not consistent with current BPA Redispatch & Curtailment BP
- Contradicts previous messaging on implementation of TSR limits and how they will or won't be utilized.
 - BPA previously advised customers that the TSR limitations would not impact NT service



Initial Customer Meeting

- Reviewed historic information on the issue identified in May of 2022.
 - *Clarification BP amendment*
 - *Implicated Policies, Tariff Review, and Industry Scan*
 - *Alternative Review*
- Received customer comments on BPA's review and initial leanings toward potential policy changes.

Customer Comments Summary

- After the initial meeting BPA customers submitted comments and BPA staff reviewed all feedback and provided combined responses.
 - Stakeholders requested additional information on the background of the issue allowing BPA to better articulate and confirm framing of the issue.
 - Stakeholders acknowledged the initial concern related to risks to the NT customer group while also expressing concerns over the impact of moving to a schedules-only based curtailment calculation.
 - Stakeholders requested further consideration of maintaining an ability to utilize reliability limit-based calculation in the preschedule (voluntary reduction of PTP schedules).
 - Stakeholders requested additional examples and visuals to understand alternatives and the status quo.
 - Stakeholders recognized this issue is limited to 1:1 path curtailments and not flow based paths (curtailed on a schedules only basis).



Alternative Review

Alternative 1a: Amend OATI Curtailment Manager: Curtailed by schedules within OATI (E-Tag)

Amend BPA current OATI calculation and reporting to align with a schedules-based curtailment calculation on 1:1 paths.

Pro:

- Ensures pro rata impact from curtailments on 1:1 paths
- Ensures alignment with BPA OATT
- Amendment to this calculation would align with the current BPA R&C BP
- Retains use of OATI tools, including integration with CCO and OASIS posting functionality.

Con:

- Requires technical implementation.
 - The scope of this work is currently under investigation. It could range from simple configuration changes to requiring a Change Order to modify the curtailment tool functionality.
 - Testing required to develop PTP CFS curtailment priority assignment logic within a schedules only calculation environment
- Customer identified (1/18/2023 Customer meeting) impact to reliability limit utilization.



Example 2: Alternative 1a

Issue Identified in Initial Customer Meeting comments

Full PTP TSR Utilization

Customer	Service Type	Initial TSR	Reliability Limit	Initial Schedules	Schedules based Curtailment	Resulting Flow	Schedules based impact	Impact %	Rights Based Impact	Impact %
Customer 1	NT	100	83.33	120	21	99	21	17%	21	17%
Customer 2	NT	100	83.33	100	17	83	17	17%	17	17%
Customer 3	NT	100	83.33	85	15	70	15	17%	30	30%
Customer 4	PTP	100	83.33	100	17	83	17	17%	17	17%
Customer 5	PTP	100	83.33	100	17	83	17	17%	17	17%
Customer 6	PTP	100	83.33	100	17	83	17	17%	17	17%
		600	500.00	605	105	500	105		120	

Example Details
Curtailed to TTC
500

Reliability Limit Based PTP TSR Reductions

Customer	Service Type	Initial TSR	Reliability Limit	Initial Schedules	Schedules based Curtailment	Resulting Flow	Schedules based impact	Impact %	Rights Based Impact	Impact %
Customer 1	NT	100	83.33	120	10	110	10	8%	10	8%
Customer 2	NT	100	83.33	100	8	92	8	8%	8	8%
Customer 3	NT	100	83.33	85	7	78	7	8%	22	22%
Customer 4	PTP	100	83.33	100	8	92	8	8%	8	8%
Customer 5	PTP	100	83.33	80	7	73	7	8%	27	27%
Customer 6	PTP	100	83.33	60	5	55	5	8%	45	45%
		600	500.00	545	45	500	45		120	

Example Details
Curtailed to TTC
500

Alternative Review

Alternative 1b: Amend OATI Curtailment Manager TSR Limit Calculation Inputs

Continue to use the current reservation-based approach. Amend the reserved capacity that is used for NT reservations as part of the pro rata calculation of TSR Reliability Limits based on reservations. The reserved capacity for NT reservations will be the higher of either the current schedules or the NT customer's forecast peak (as represented in the customer's initial NT reservation).

Pro:

- Eliminates potential disparate impact of curtailments to NT customer group
- Does not change the calculations for determining the pro rata limits on reservations or how those limits are applied to schedules.
 - In other words, it does not change the 4-step process.
 - It changes the input to that process for NT reservations only by correctly accounting for true reserved capacity.
- Maintains reliability limit based processing within OATI CM relied upon by some PTP customers
- Aligns with an industry standard PTP process (10 years of implementation history).
- Appears to align with BPA OATT
 - CM does curtail schedules after applying amended TSR Limits based on Reliability Limits.
- Retains use of OATI tools, including integration with CCO and OASIS posting functionality.

Con:

- Maintaining the 4-step process would require re-posting of the V14 BPA R&C BP including the description of the four step 1:1 path curtailment procedure.
- Requires technical implementation.
 - This change requires an OATI Change Order of modest scope. The change primarily involves modifying what CM considers to be the starting reserved capacity for firm NT. The scope would not involve changing the more complex pro rata calculations.
- Testing required to develop PTP CFS curtailment priority assignment logic within a schedules only calculation environment.



Example 3: Alternative 1b (Full PTP Utilization)

Amended TSR Limit Calculation Impact

Example Details
Curtailed to TTC
500

Customer	Service Type	Initial TSR Limit	Initial Schedules	Initial Calculation TSR limit	Reliability Limit	Post Reliability Schedules
Customer 1	NT	100	120	120	96.77	120
Customer 2	NT	100	100	100	80.65	100
Customer 3	NT	100	85	100	80.65	85
Customer 4	PTP	100	100	100	80.65	100
Customer 5	PTP	100	100	100	80.65	100
Customer 6	PTP	100	100	100	80.65	100
		600	605	620	500.00	605

Status Quo - Curtail on Transmission Rights									
Step 1 TSR Limits	Step 2 TSR Limit based curtailment		Step 3 TSR Limit Over-curtailment return	Step 4 E-Tag curtailment	Totals				
TSR Limit	E-Tag amended Value	Curtailment	Return MW	Remaining curtailment	Resulting Flow	Schedules Based Impact	Impact %	Rights Based Impact	Impact %
96.77	96	24	1.0	0	97	23	19%	23	19%
80.65	80	20	1.0	0	81	19	19%	19	19%
80.65	80	5	0.0	0	80	5	5%	20	20%
80.65	80	20	1.0	0	81	19	19%	19	19%
80.65	80	20	1.0	0	81	19	19%	19	19%
500	496	109	5.0	0	501	104		119	19%

Example 3 (Cont.): Alternative 1b (PTP Voluntary Reduction)

Amended TSR Limit Calculation Impact

Example Details
Curtailed to TTC
500

Customer	Service Type	Initial TSR Limit	Initial Schedules	Initial Calculation TSR limit	Reliability Limit	Post Reliability Schedules
Customer 1	NT	100	120	120	96.77	120
Customer 2	NT	100	100	100	80.65	100
Customer 3	NT	100	85	100	80.65	85
Customer 4	PTP	100	100	100	80.65	100
Customer 5	PTP	100	100	100	80.65	80
Customer 6	PTP	100	100	100	80.65	60
		600	605	620	500.00	545

Status Quo - Curtail on Transmission Rights									
Step 1 TSR Limits	Step 2 TSR Limit based curtailment		Step 3 TSR Limit Over-curtailment return	Step 4 E-Tag curtailment	Totals				
TSR Limit	E-Tag amended Value	Curtailment	Return MW	Remaining curtailment	Resulting Flow	Schedules Based Impact	Impact %	Rights Based Impact	Impact %
96.77	96	24	8.0	0	104	16	13%	16	13%
80.65	80	20	7.0	0	87	13	13%	13	13%
80.65	80	5	2.0	0	82	3	3%	18	18%
80.65	80	20	7.0	0	87	13	13%	13	13%
80.65	80	0	0.0	0	80	0	0%	20	20%
80.65	60	0	0.0	0	60	0	0%	40	40%
500	476	69	24.0	0	500	45		120	19%

Summary of Recommendation

BPA Staff recommends implementation of **Alternative 1b**:

Continue to use the current reservation-based approach. Amend the reserved capacity that is used for NT reservations as part of the *pro rata* calculation of TSR Reliability Limits based on reservations. The reserved capacity for NT reservations will be the higher of either the current schedules or the NT customer's forecast peak (as represented in the customer's initial NT reservation).

- This option would result in **no change** to current PTP customer utilization and functionality (*pro rata* calculation) while **mitigating potentially disparate impacts** to NT customers.

Next Steps

- Receive and respond to customer comments

- Finalize BPA decision/ Business Practice Amendment Process
 - BPA Staff to begin drafting amendments.
 - *Expected Go Live - TBD*

- OATI systematic changes
 - Under Review

- Other Identified Topics
 - *Implementation of Scheduling Rights and the NITS on OASIS Phase 2 recommendations*

Questions?

Please submit comments by 05/31/2023 to techforum@bpa.gov (CC: your Transmission Account Executive) – *please note “1:1 Path Curtailments” in the subject line*

