

Concurrent Loss Return Service Customer Workshop

May 26, 2022



Pre-decisional. For Discussion Purposes Only.

Agenda

2

- Overview
- Review Customer Feedback
- Review of Policy Decisions (Business Practice Context)
 - Capacity Charge including review of Loss Data
 - Kilowatt (kW) Remainders
 - Timing of Final Loss Obligation Posting & Imbalance Financial Settlement
 - Penalty Charge on Invalid Loss Returns
 - User Interface & API (CDE)
 - Loss Obligation Posting Intervals
 - No-charge Loss Reservations
 - Loss Suffix
 - SLICE
- Next Steps
 - Including two week comment period

What BPA Has Heard

- Questions on the principles
- Need more time to discuss the features of the alternatives
- Capacity charge is not acceptable
- Would like to better understand how customer comments are being considered in the features

3

- Interplay between EIM and the proposed RPL timeline
 - Like to better understand the schedule timing

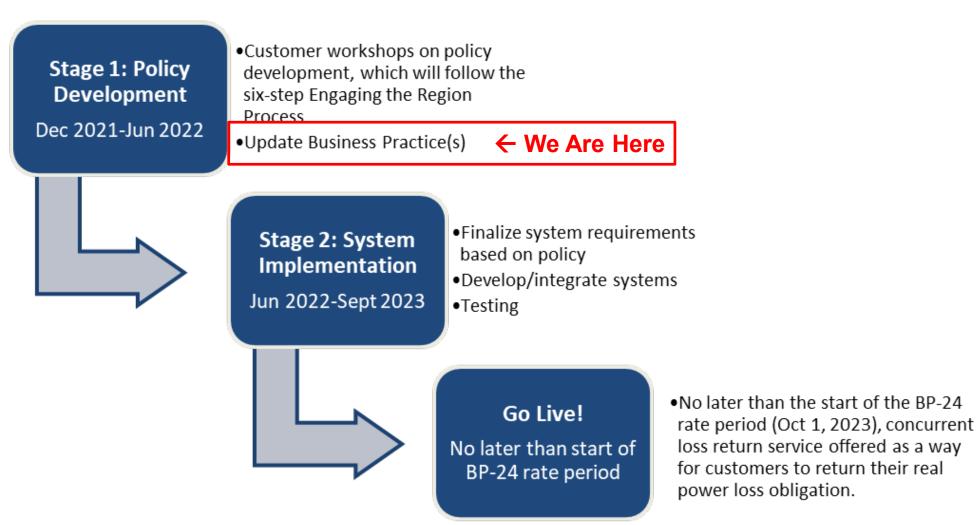
Principles

- 1. Meet BPA's commitment in the BP-22 settlement.
- 2. Informed by what has been implemented by other utilities.
- 3. As simple as possible and minimizes administrative burden for BPA and customers, where possible.
- 4. Cost efficient implementation for BPA through minimization of custom changes to systems.
- 5. Losses returned the same hour as the schedule.
- 6. Minimizes unintended impacts on other policies and is auditable.

BPA's Current Position

- BPA continues to proceed forward with our proposal to have customers return their aggregated/posted loss obligation during the hour of flow for which the loss obligation was calculated.
- BPA will continue to offer two choices to return loss obligations:
 - 1. Concurrent in-kind loss returns
 - 2. Financial loss returns

Implementation Stages



Engaging the Region

 Policy items will be presented according to the following six-step process at workshops (multiple steps might be addressed in a single workshop):

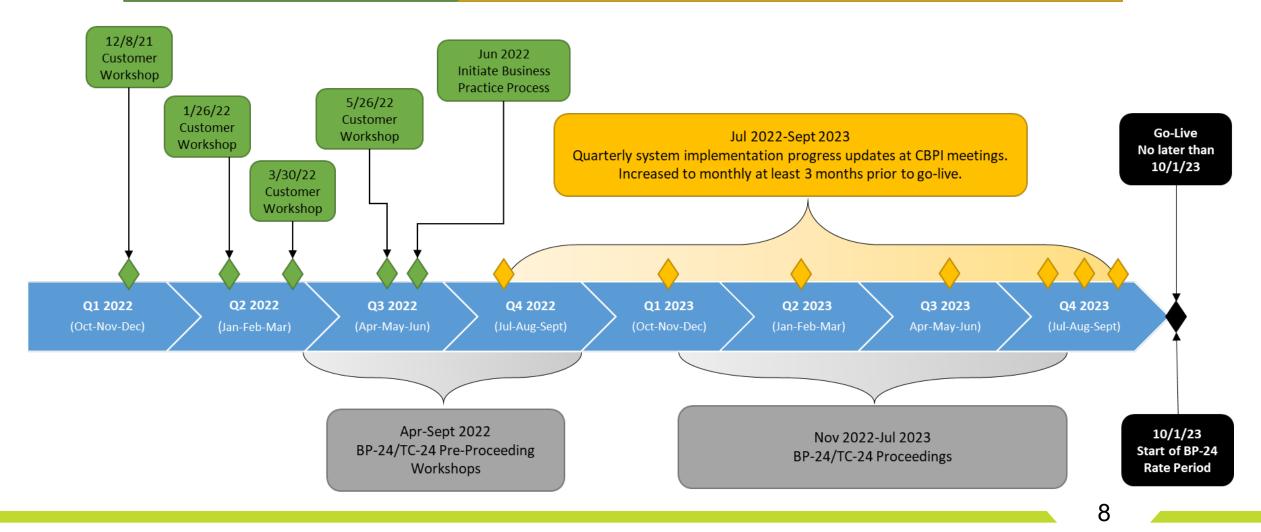


* May 26 workshop was a rescheduling of the April 26 workshop

Project Timeline

Stage 1: Policy Development

Stage 2: System Implementation



Pre-decisional. For Discussion Purposes Only.

Preparing for Business Practice Process

- BPA will follow the formal business practice guidelines as established per the TC-20 settlement.
 - Includes 30-day review with customer comment
- Any content from today's presentation is strictly for consideration prior to that formal process.
 - BPA is sharing proposed language to codify the associated decisions in the business practice
- BPA welcomes comments and questions to clarify language.

CUSTOMER FEEDBACK

Snohomish Comments & BPA Responses

Comment	Response
 Highest priorities should be: Retain ability to utilize Slice right-to-power Minimize additional administrative overhead on RT staff Minimize IT integration changes 	Thank you for your comments. BPA's intent is to continue to work with customers to provide Slice right-to- power. BPA agrees on minimizing IT integration changes and understands the desire to minimize administrative overhead where possible.
For Slice, ability to use RTP for physical returns between T-80 and T-30 is beneficial.	After continued customer engagement, BPA's proposal includes financially settling all changes after T-80 which aligns with Snohomish's proposal. This will be discussed later in this presentation.
If loss obligation is decreased after T-80 will a credit be issued?	Yes, a financial credit will be applied.
Real-time staff will have to frequently pull updated loss obligation between T-67 and T-30	This option is no longer being considered for Slice customers.
To avoid penalties at T-20 or EIM imbalance at T-57, customers must adjust scheduling behavior to a few minutes earlier than today.	This comment is correct.

11

Snohomish Comments & BPA Responses (cont.)

Comment

Consider carrying forward real-time loss return imbalance as an adjustment to future hour (T+168) loss obligation

Reliability Events

- Prefer an exemption from loss penalties for reliability events that happen after T-67
- Propose T-67 as cutoff for all loss obligations
- If T-30, then support option 1

Loss Obligation Posting Location

- Prefer CDE
- Alternate location that supports auto-query would be acceptable
- Any implementation that does not support automation would not be supported

Response

Thank you for the proposal however as the customer noted carrying forward a loss obligation is not currently an option under consideration

Thank you. Any exemption of this penalty for Reliability Events will be addressed in the BP-24 rate proceeding and is discussed later in this presentation.

BPA agrees and expects to add said API to the CDE solution.

Joint Comments* & BPA Responses

Comment

Principles, Prioritization and Timeline

- Customers never afforded the opportunity to engage or provide input
- Resultant customer impacts merit additional discussions
- Settlement timeline is not a firm obligation (per BPA legal counsel)
- Does the impact to FCRPS merit this level of engagement?
- Confused & disappointed in BPA's continued insistence on pursuing implementation in a compressed timeline with inadequate resources, under false legal obligation and inadequate customer input.

Scheduling Timing & System Requirements

- Quantify impact of loss calculation at T-70/T-80 versus final loss calculation
- If resultant delta is de minimis then treat as imbalance to minimize operational and financial impacts to all parties
- Inability to guarantee adequate API to access/pull loss obligation data is an unnecessary burden and concern

Response

- BPA thanks the joint customers for sharing their thoughts and frustrations.
- BPA executives will respond to these comments in their opening comments.

- Based on the data, BPA has determined that no capacity charge will be applied, including for Slice customers.
- BPA agrees and expects to add said API to the CDE solution.

* Joint comments were submitted by EWEB, Clatskanie PUD, NRU & PNGC

NIPPC Comments & BPA Responses

 Absence of data impacts ability to evaluate and respond to BPA proposal Financial settlement calculation should be same for credit or 	 BPA released a data set on May 17, 2022 which we believe satisfies the data request. BPA is providing greater detail on financial settlements. Any financial calculation must be included in the rate case. BPA agrees and expects to add said API to the CDE solution.
 Invalid Loss Returns Reliability Curtailment - Agree with BPA proposal to compensate in the instance of such an event Lack of data to support options does not allow customer feedback NIPPC supports option one as rate structure should not be punitive 	 BPA believes that the discussions on these comments later in this presentation will address these concerns.
 Real-time and ATF Loss Return Imbalance Lack of data impacts ability to fully respond to BPA proposal Please see NIPPC proposal 	 BPA released a data set on May 17, 2022 which we believe satisfies the data request. With respect to NIPPC's proposal, if across "an hour" then the proposed statements are true, however, if across "a number of hours" then the ability to net to zero is not an option BPA has considered.

14

Powerex Comments & BPA Responses

Comment	Response
 Clarify how oversupply of losses will be reconciled or credited back to customer (particularly with Dynamic Transfer & Pseudo- Tie) 	 If actuals after the hour of flow are lower than the amount returned as of T-20, the difference will result in a financial credit.
 Timelines should be considerate of PCM implementation (particularly with Redirects & Consolidations). Propose moving conditional deadline to 12 pm or prior Increase frequency of calculation between 2 and 3 pm. 	 These comments have been shared with the PCM team for further consideration. Staff has increased the frequency of the loss obligation calculation between 2 and 3 pm to accommodate the close of the unconditional window.

TransAlta (TEMUS) Comments & BPA Responses

Comment

- Confirm that adjustments after T-30 will be settled financially
 - If so, clarify that customer is NOT required to return physical losses
 - Confirm that under-delivery penalties would not apply
 - If so, TEMUS supports proposed timing
- TEMUS opposes a capacity rate included in financial settlements
- Reliability Events Confirm whether or not a capacity rate would be included in option 1.

Response

- BPA confirms that adjustments after T-30 will be settled financially
- Return of physical losses and penalties will be clarified later in this presentation; however, any exemptions and/or penalties will be addressed in the BP-24 rate proceedings, including the pre-proceeding workshops
- Thank you for your comments
- BPA SMEs are not proposing the inclusion of a capacity rate in option 1.

REVIEW OF POLICY DECISIONS & PROPOSED BUSINESS PRACTICE LANGUAGE

Capacity Charge: Data Study Overview

- Max and min aggregate hourly imbalances due to rounding are small (between 4-6 MWs).
- Max and min aggregate hourly imbalances due to establishing loss obligations at T-30 (aka timing imbalance) can be large (between 50-100 MWs).
 - Large over-returns are due to curtailments
 - Bias towards under-returns is due to current practice of inputting 0 MW estimates for dynamic and pseudo-tie schedules.

Rounding Remainder: T-3 (Negative is under-returned, p			y		
In-Kind Loss Return Type	CY 2019	CY 2020	CY 2021	ave	erage MW
Sum MWh	(4,981)		(0.651		
Max MW	4.002	4.645	4.428		4.358
Min MW	(5.103)	(5.725)	(4.245)		(5.024
Annual cost of DECs (BP-22 \$	\$	19,351			
Annual cost of INCs (BP-22 \$	\$	317,739			
Total annual capacity cost	\$	337,090			

Timing Imbalance: T-30 Obligation minus Final Obligation						
(Negative is under-returned,						
Loss Return Type	CY 2019	CY 2020	CY 2021	average MW		
In-Kind Sum MWh	(29,410)	(110,925)	(78,766)	(8.330)		
Slice Sum MWh	(869) (546) (706					
In-Kind + Slice Sum MWh	(111,471)	(79,472)	(8.410)			
In-Kind + Slice Max MW	71	120	105	99		
In-Kind + Slice Min MW	(50)	(62)	(48)	(53)		
Annual cost of DECs (BP-22 \$	\$ 438,113					
Annual cost of INCs (BP-22 \$	\$ 3,349,844					
Total annual capacity cost	\$ 3,787,956					

Capacity Charge: Staff Recommendation

- At this time, BPA will not establish a capacity charge associated with concurrent loss return imbalances due to rounding and timing for the following reasons:
 - rounding imbalances are very small;
 - imbalance due to curtailments is covered by deployment of balancing reserves; and
 - BPA expects scheduling accuracy associated with dynamic and pseudotie schedules to improve due to joining the EIM.
- BPA will monitor scheduling behavior (i.e., dynamic and pseudo-tie)
 - If there is a pattern of scheduling that negatively impacts loss imbalances we may consider establishing cost mechanisms beyond BP-24 to incentivize more accurate scheduling.

Capacity Charge: Delayed Loss Returns

- A few customers have requested that BPA also analyze the capacity cost of supporting delayed loss returns if the losses are returned in a much shorter time frame than the current delay of 168-hours.
- BPA analyzed the capacity cost associated with delayed loss returns and is providing this study for information purposes only. BPA is committed to implementing concurrent loss returns at the same hour as the schedule.
- Using calendar year 2019, 2020, and 2021 losses data and BP-22 Generation Inputs capacity rates, BPA has calculated that the capacity costs to support delayed losses is between \$5.4 and \$9.2 million, this range includes the costs of supporting a 1, 2, 3, and 168 hour delay.

Delayed Loss Returns – Capacity Services

- Similar to the methodology used in the BP-22 rate case, the following capacity services were valued in the capacity cost analysis for delayed loss returns:
 - BPA provided INCs when the amount returned by customers in an hour (based on an obligation incurred in a previous hour) is less than the losses incurred in the same hour.
 - BPA provided DECs (stores generation) when the returned loss amounts are greater than the losses incurred in the same hour.
 - Customer provided DECs to BPA when BPA waives loss returns due to over supply. Customer provided DECs are valued as a credit to customers and reduce the overall capacity cost.

Delay	Average BPA provided INCs MW	Average BPA provided DECs MW	Average Customer provided DECs MW	BPA INC Charge	BPA DEC Charge	Customer DEC Credit	Total Capacity Costs	Delayed Losses Capacity Fee (\$/MWh)
1-hour	86	85	108	\$5,412,290	\$378,757	(\$478,780)	\$5,312,267	\$1.69
2-hours	116	112	108	\$7,355,163	\$498,143	(\$478,780)	\$7,374,527	\$2.34
3-hours	134	131	108	\$8,491,727	\$580,653	(\$478,780)	\$8,593,600	\$2.73
168-hours	145	137	108	\$9,182,097	\$607,540	(\$478,780)	\$9,310,857	\$2.96

kW Remainders

Objective:

 Determine how to calculate a customer's hourly loss obligation and how to manage loss return remainders (kWs) since transmission service must be delivered in whole MWs.

Policy Decision:

- BPA will apply standard rounding to determine the total hourly aggregate loss obligation for each customer, but will NOT carry forward kW remainders to subsequent hours.
- BPA will financially settle all remaining kWs (charge or credit). This option is the simplest to develop from a system perspective and most accurately accounts for all of the energy deviations due to kW remainders from applying rounding to the calculated loss obligation.

Proposed BP Language Calculation of Loss Obligation

- 3. In-Kind Real Power Loss Return Service
 - a. For Customers who are returning losses concurrently,
 - i. Losses are based on the total MWs scheduled per contract per hour. Because losses must be delivered in whole MWs, standard rounding is applied to calculate a customer's final Loss Obligation for the hour.
 - When calculating the hourly Loss
 Obligation, any kilowatt remainder will be settled financially using the rate defined in the rate schedule.

Timing & Imbalance

Objective:

 In order to ensure both flexibility for the customer along with minimizing the impact on FCRPS resources, identify a point in time to post a final pre-hour of flow Loss Obligation, allowing time for customers to return losses prior to the WECC close of the scheduling window.

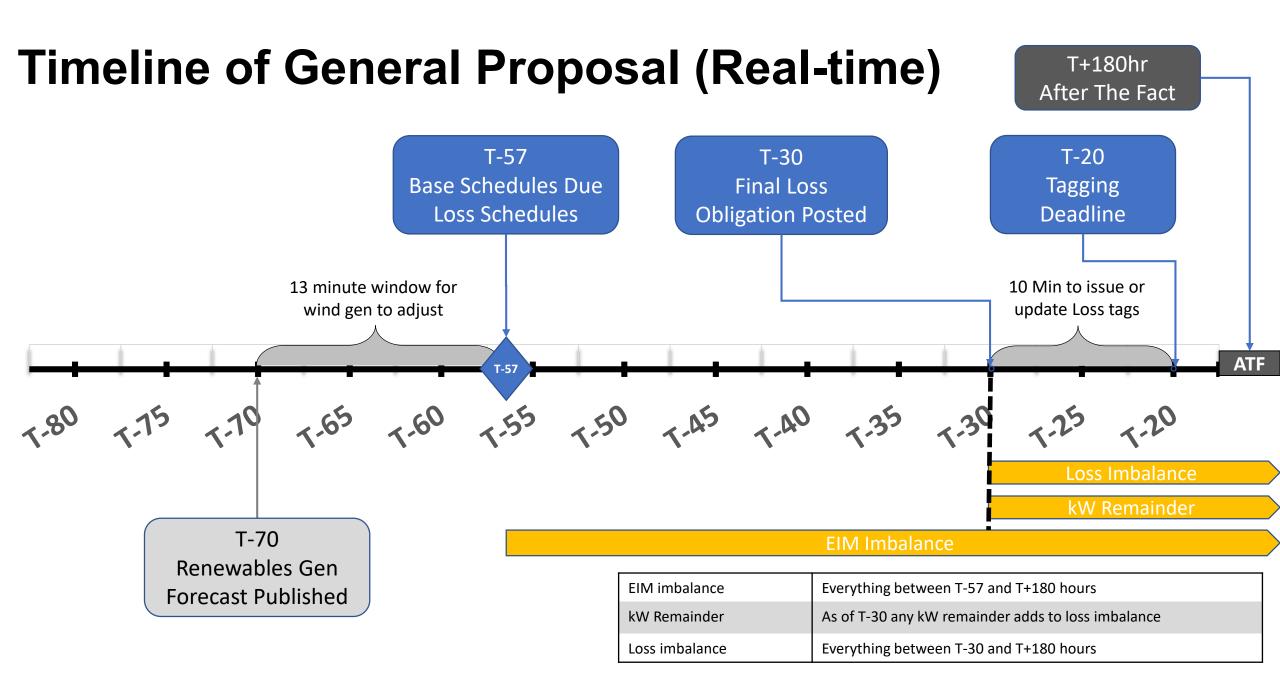
Policy Decision:

- BPA considered several final obligation time options. Based off of customer feedback, BPA chose T-30 to ensure Loss Obligation changes resulting from the VERS forecast were able to be physically returned by T-20, minimizing the impacts to FCRPS during the hour of flow.
- A final Loss pre-hour of flow Loss Obligation will be calculated by BPAT and posted at T-30 prior to flow.
- Loss Return eTags with MWs matching the full Loss Obligation amount must be submitted with a Pending or Confirmed status by T-20 prior to flow.
- Loss Return eTags submitted/adjusted between T-57 and T-20 will be subject to EIM Imbalance.
- Loss Imbalance will be calculated using T-30 in two ways:
 - Remaining kWs after standard rounding has been applied to the Loss Obligation will be stored and contribute towards a total Loss Imbalance.
 - Any changes after T-30 that result in a change to the Loss Obligation will contribute towards a total Loss Imbalance.

Proposed BP Language Calculation of Loss Obligation

2. BPA will calculate and post the final pre-hour of flow Loss Obligation:

- a. For Customers taking In-kind Real Power Loss Return Service the final hourly aggregated pre-hour of flow Loss Obligation will be posted 30 minutes (T-30) prior to each hour of flow.
 - As of T-30, after standard rounding to the whole MW has been applied to the calculated Loss Obligation, the remaining kilowatt remainders will be stored per hour and contribute towards a total Loss Imbalance.
 - ii. All changes occurring after T-30 that contribute towards a change to the Loss Obligation will be calculated and contribute towards the total Loss Imbalance. This includes eTag Energy Profile adjustments, new intra-hour eTags, Reliability Events, After the Fact adjustments, etc...
 - iii. The total Loss Imbalance will be settled financially on a monthly basis, using rates defined in the rate schedule.



Penalty Charge on Invalid Loss Returns

Objective:

 Determine how to address customers that submit invalid loss return schedules (over or under delivery schedules) as of the WECC (T-20) close of the scheduling window.

Policy Decision:

- BPA will assess a Concurrent Loss Penalty Charge on invalid loss returns. BPA believes establishing a strong incentive for customers to return valid loss returns by the final submission window is necessary to successfully implement Concurrent Loss Return Service.
- The actual penalty rate design will be determined in the BP-24 process, but may take the form of the current FFI penalty.
- Any exemption of this penalty for Reliability Events will be addressed in the BP-24 rate proceeding
- A process for customers to request a waiver or reduction in penalty will be provided.

Proposed BP Language

E. Concurrent Loss Penalty For Invalid Loss Returns

- Concurrent Loss Penalty Charge, as set forth in the Transmission Rate Schedule, will be issued on the transmission bill when the total Loss Return MW amount as of T-20 prior to each hour of flow does not match the BPA calculated Loss Obligation MW amount posted as of T-30 prior to each hour of flow.
- 2. For any hour in which Real Power Losses have been waived under the Oversupply Management Protocol Business Practice, Section E.2, the Customer will not be subject to the Concurrent Loss Penalty Charge unless the Customer returns Real Power Losses in an hour where losses have been waived.
 - i. Real Power Loss Return schedules are subject to TP issued Reliability Events, except as provided in the Oversupply Management Protocol business practice section E.2, in real time
- 3. The BPA standard waiver/dispute process may be used for contested Concurrent Loss Penalty Charges.

Note: May continue to be labeled an FFI Penalty, subject to Rate Proceedings

User Interface & API

Objective:

- Determine the user interface to allow customers access in order to view their BPA posted Loss data.
- Customers need the ability to view calculated Concurrent aggregated hourly Loss Obligations via a secure website. The account accessibility of this website also requires Third Party Loss Providers to have the ability to view another customer's posted Loss Obligations

Policy Decision:

- BPA will work with OATI to create a new Concurrent Loss Obligation screen within the OATI Customer Data Entry (CDE) module where the BPA calculated loss data will be posted
- The need for a full automation capable customer API is a high-priority for customers considering the shortened turn-around time for returning losses that comes with a Concurrent Loss solution.

Proposed BP Language Calculation of Loss Obligation

- Customers and third party Loss Providers that return losses for In-Kind and Slice Output returns must use the CDE system to access Their Real Power Loss obligations.
 In order to gain access to the CDE system, Customers and third party Loss Providers must follow the requirements in the Customer Data Entry Business Practice.
 - a. Customers who have more than one authorized third party Loss Provider for viewing loss data and reports must coordinate and elect which party is responsible for returning all the loss obligations.
- 9. The Real Power Loss obligations can be accessed using either :
 - a. CDE interface, or
 - b. An XML or API
 - For technical assistance to access data, send an email to txcbs@bpa.gov

Loss Obligation Posting Intervals

Objective:

 The updated Loss Obligation value(s) must be posted to the customer within a reasonable amount of time, allowing enough time for the customer to submit or modify a Concurrent Loss Return e-Tag before the close of the relevant Tag Timing window (WECC Timing Table or BPA EIR Timing Policy).

Policy Decision:

- BPA has considered customer concerns around the ability to get up to date Loss data in a timely manner in order to have time to react. BPA has attempted to meet this need while balancing it with technological limitations in order to mitigate risks of system performance impacts.
- BPA heard customer concern regarding 14:00 of the PreSchedule day being the close of the reservation Unconditional window and the need for more frequent postings between 14:00 and 15:00. BPA agrees and will ensure the software is designed this way as system performance allows.

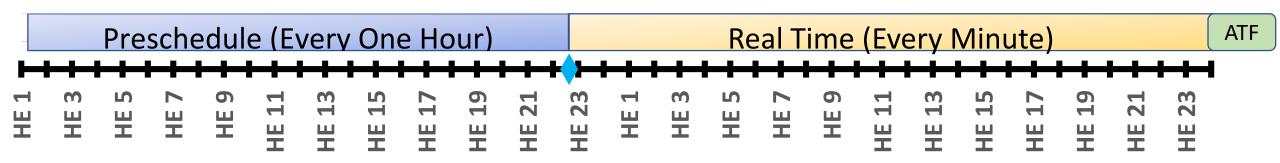
Proposed BP Language

Calculation of Loss Obligation

1. BPA will calculate, and post on the Customer Data Entry (CDE) system, the total hourly Real Power Losses owed by Customers electing In-Kind, and Slice Output Loss Return Services, in the following intervals:

- a. Between 00:00 of the PreSchedule day and 14:00 of the PreSchedule day, post once <u>per hour</u> for the next day plus 5 days out.
- b. Between 14:00 and 15:00 of the Preschedule day, post once <u>per minute</u> for the next day plus 5 days out.
- c. Between 15:00 of the PreSchedule day and 21:00 the night prior to the RealTime day, post once <u>per hour</u> for the next day plus 5 days out.
- d. Between 21:00 the night prior to the RealTime day and the close of the RealTime Day, post once <u>per minute</u> for the next hour plus 2 hours out.
 - The final one minute posting will end at T-30 prior to each hour of flow.
- e. Between the start of each hour of flow and T+180 after each hour of flow, post once <u>per hour</u> for the current hour plus 5 days out.
 - This value should show all changes to the Loss
 Obligation that have occurred between T-30 prior to the start of flow and the current time of posting.

Preschedule to Real Time Loss Obligation Windows



Window	Posting Frequency	Start	Stop
Preschedule	Updated every 1 hour, for all hours in the RealTime Day + 5 days out	12:00AM PPT (Open of the PreSchedule Window)	10:53PM PPT (67 minutes prior to the start of the RealTime day)
Real Time	Updated once per minute for Next Hour + 2 additional hours	10:53PM PPT (67 minutes prior to the start of the RealTime day)	T-30 (Final RealTime Loss Obligation Posting)
After the Fact	Updated every 1 hour for all hours	T-30 (Final RealTime Loss Obligation Posting	T+180 (Final Loss Obligation)

Posting Window Change

T-67 prior to start of Real Time. Change from 1hr to 1min Loss Obligation Postings

After The Fact (ATF):

 Updated Loss Obligation once per hour for each hour of flow between T-30 and T+180

No-charge Loss Reservation

Objective:

 Ensuring Customers have the ability to reserve one or more hourly No-Charge Loss Reservations during the Real-Time horizon in order to meet/return their final BPA calculated Loss Obligation by T-20 prior to the start of flow.

Policy Decision:

- BPA proposes to create and offer a no charge Non-Firm Hourly Loss Return Reservation product that would be available between 15:00 PPT on the WECC Preschedule day and the close of the RealTime day.
- This would provide:
 - an hourly product, available in RealTime, on which to schedule additional Loss Returns.
 - an option for alternative transmission in case Firm requests are denied in the ATC validation check.

Proposed BP Language (Real Power Losses BP) Loss Return Requirements

4. A Customer, or its alternate Real Power Loss Provider, may return In- Kind Real Power Loses on firm transmission or on non-firm transmission by one of the following reservation procedures:

- a. No Charge Reservation:
 - i. To reserve No Charge Reservations in OASIS, go to the Reservation Summary screen and select "F-Daily Loss Return", "F-Hourly Loss Return", or "NF-Hourly Loss Return" service .
 - ii. If the Customer does not want to access OASIS to reserve No Charge Reservation, they will need to arrange to have another entity do business for them as their Reservation Agent. Refer to the Reservation Agent Business Practice for details.
 - iii. For submittal timelines for the No Charge Reservations see the Requesting Transmission Service Business Practice.
- b. CONFIRMED Firm No Charge Reservations to return losses will increment (or decrement) posted ATC and AFC.
- c. CONFIRMED Non-Firm No Charge Reservations will impact posted ATC.

No-charge Loss Reservation (Continued)

Policy Decision (continued):

 The Loss Obligation needs to be calculated/recalculated based on any new or modified e-Tag data received by BPAT. The updated Loss Obligation value(s) will be posted to the customer within a reasonable amount of time, allowing enough time for the customer to submit or modify a Concurrent Loss Return e-Tag before the close of the relevant Tag Timing window (WECC Timing Table or BPA EIR Timing Policy).

Proposed BP Language (Requesting Transmission Service BP)

General Criteria

13. The Customer may elect to reserve transmission for Real Power Loss Returns as:

- a. No Charge Daily Firm transmission loss reservation acquired no earlier than 7 days before delivery, up to 15:00 PPT of the WECC Preschedule day. Begins 00:00 hours one day and ends 00:00 hours of a following day for no less than 1 day and no more than 6 days
- b. No Charge Hourly Firm transmission loss reservation acquired no earlier than 7 days before delivery, up to 15:00 of the WECC Preschedule day. Begins at XX:00 one day and may continue up to 00:00 hours of the following day.
- No Charge Hourly Non-Firm transmission loss reservation acquired no earlier than 15:00 PPT of the WECC preschedule day and is available until the close of the Real Time day. Begins at XX:00 one day and may continue up to 00:00 hours of the following day

14. No-Charge Daily or Hourly transmission loss reservations cannot be resold or redirected.

Loss Suffix

Objective:

• Simplify the tagging requirements for returning losses, and true them up to the current BPA systems.

Policy Decision:

- For concurrent loss returns, BPA will discontinue the requirement of including specification of loss-related tag suffixes on loss return eTags.
- These tag suffixes were created for categorization purposes required by a legacy BPA system that is no longer in use.

Proposed BP Language Loss Return Requirements

- 8. Use of Product Suffix Code on the e-Tag:
 - a. With the exception of Customer with Non-OATT Loss Service, Customers do not need to include a Product Suffix Code on the concurrent loss e-Tag(s).
 - b. Customers with Non-OATT Loss Service must reference the appropriate Product Suffix Code on the e- Tag:
 - i. Point-to-Point Service Agreement LP
 - ii. Network Integration Service Agreement L3
 - iii. Formula Power Transmission contract L2
 - iv. Southern Intertie owners and Non-Federal participant's (NFP) L7
 - v. Northern Intertie owners L9

Pre-decisional. For Discussion Purposes Only.

Slice

Objective:

 Assess whether or not to maintain Slice as a settlement method for the settlement of concurrent loss obligations

Policy Decision:

- Staff is recommending that Slice customers will be allowed to maintain the Slice settlement method for Concurrent Loss Returns up to T-80
- Slice customers expressed concern regarding the potential retirement of the Slice settlement method
- Bonneville has been engaged in ongoing discussions with Slice customers in order to identify what would be necessary to retain the Slice settlement method

Proposed BP Language General Criteria

2.c. Slice Output: Customers with a Regional Dialogue Slice/Block power sales agreement may return Real Power Losses by adjusting the Customer's Slice Output Energy schedule 80 minutes prior (T-80) to the hour the customer uses the BPA transmission system.

8. A third-party Loss Provider who is also a BPA Power Services' Regional Dialogue Slice/Block Customer may supply losses from Slice Output.

Slice Loss Return

 Power Services' Regional Dialogue Slice/Block Customers are not required to submit a No Charge Reservation when using Slice Output to provide Real Power Loss Returns. Losses returned by Slice Output Losses Return Type are deducted from the Customer's share of Slice Output for the hour of service, prior to making the share available for scheduling.

Slice (cont.): Timing

Objective:

 In order to ensure both flexibility for the customer along with minimizing the impact on FCRPS resources, identify a point in time to post a final pre-hour of flow Loss Obligation, allowing time for Slice customers to return losses through utilization of their Slice right to power.

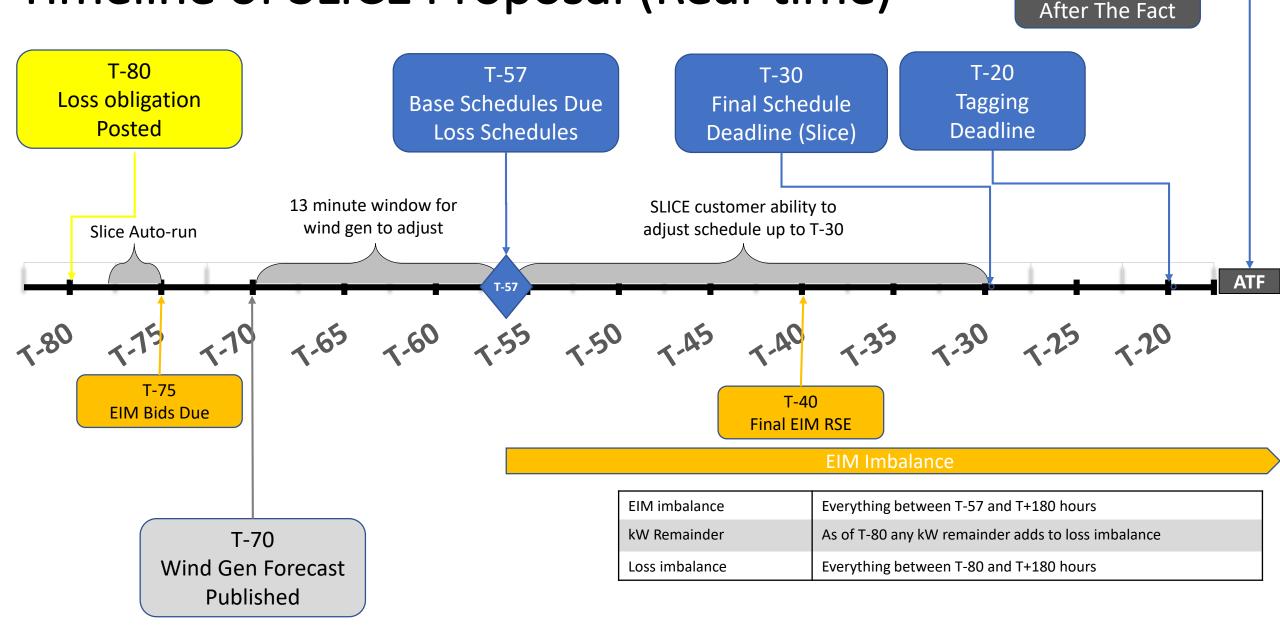
Policy Decision:

- Final obligation will be posted at T-80 for Slice customers
- Be responsive to customer feedback on timing requirements

Proposed BP Language Calculation of Loss Obligation

- 3. BPA will calculate and post the final hourly Loss Obligation:
 - b. For Customers with a Regional Dialogue
 Slice/Block power sales agreement the final hourly
 Loss Obligation will be posted 80 minutes (T-80)
 before the hour the customer uses the BPA
 transmission system
 - Post T-80, changes in Loss Obligations due to schedule adjustments or new transmission schedules will be settled financially using the rate defined in the rate schedule
 - ii. When calculating the hourly Loss Obligation, any kilowatt remainder will be settled financially using the rate defined in the rate schedule.

Timeline of SLICE Proposal (Real-time)



T+180hr

Next Steps

- Business Practice Process expected in June.
- Regular updates via the CBPI customer conference call.
- BP-24 Pre-Proceeding Workshops
 - Discuss options with rate components (i.e. Invalid Return penalty, financial settlement of concurrent imbalance)
- Please submit feedback to <u>techforum@bpa.gov</u> by June 10, with a cc to your Transmission Account Executive (AE).

APPENDIX

General Proposal (Concurrent Only*)

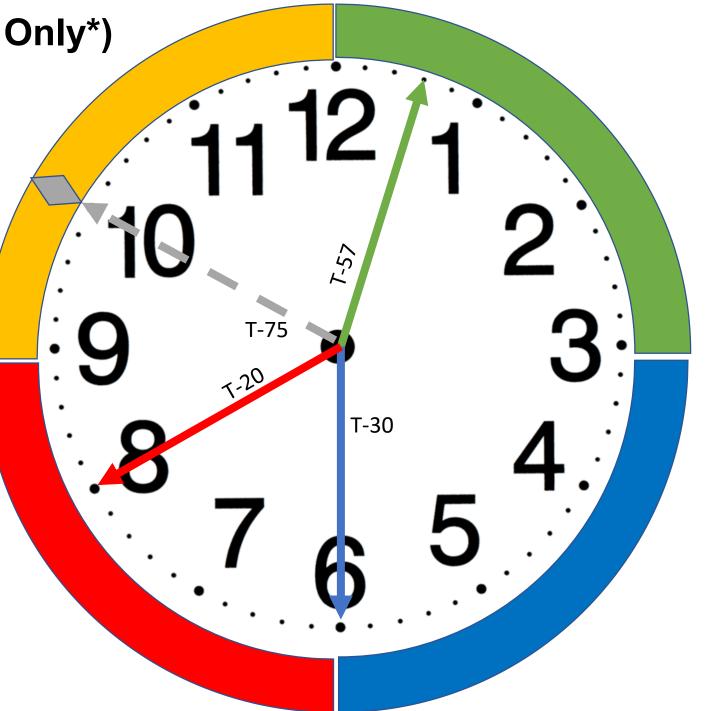
T-70: Renewables Gen Forecast (posted every minute through T-30)

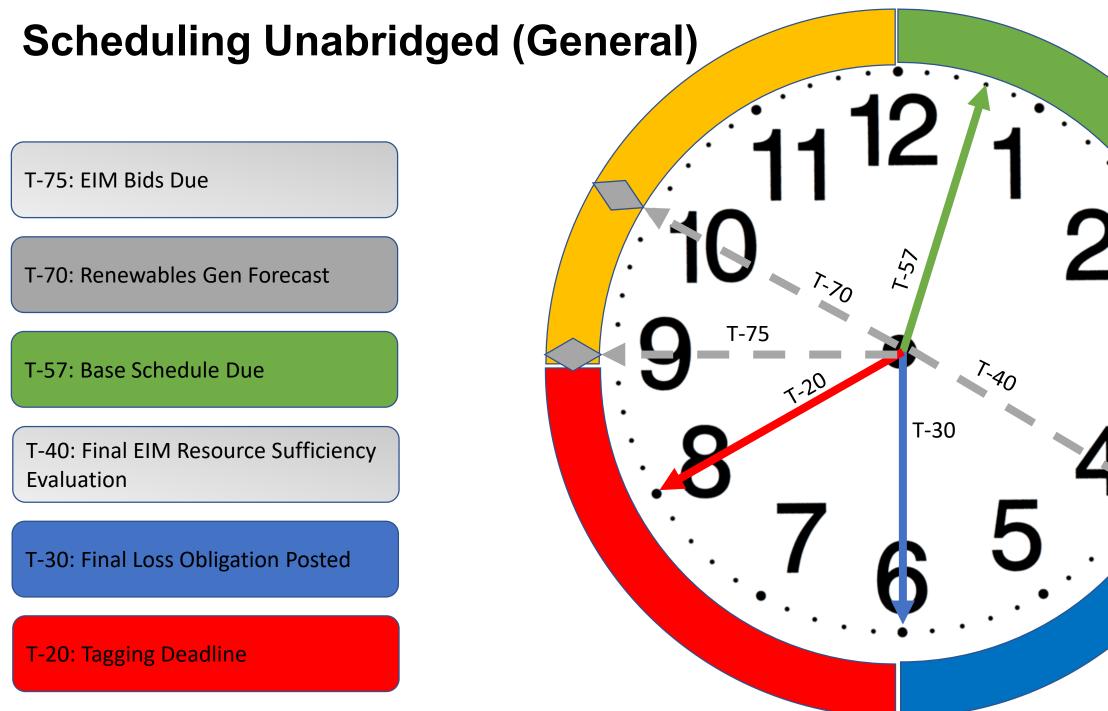
T-57: Base Schedule Due

T-30: Final Loss Obligation Posted

T-20: Tagging Deadline

- * Concurrent-only
- Only applicable to non-SLICE customers
- Loss obligation will be re-checked and re-posted every minute during real time up to T-30
- Any Loss Return tag submitted between T-57 and T-30 will be subject to EIM charges/credits





SLICE Proposal @ T-80

T-80: Loss Obligation Posted for SLICE

T-70: Wind Gen Forecast (posted every minute through T-30)

T-57: Base Schedule Due

T-20: Tagging Deadline

Slice

- T-80, last opportunity to right to power for SLICE
- Loss obligation will be re-checked and reposted every minute during real time up to T-30
- T-80 to T+180, schedule changes or new schedules resulting in a different loss obligation will have the incremental loss obligation settled financially (charge or credit)

