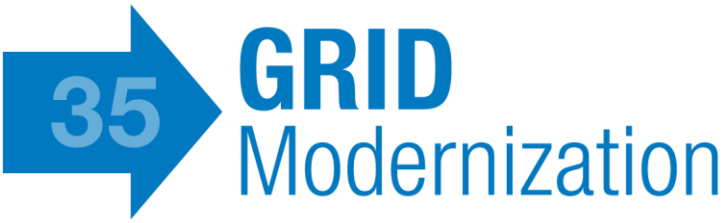


EIM Customer Impact Summary

This document captures what may change for Bonneville Power Administration power and transmission customers if it decides to join the Western Energy Imbalance Market in March 2022. This is a living the document which will be updated as new changes are identified and to address new questions raised by customers during the implementation process. Please note that not all decisions are final and the document highlights where those decisions will be made. If there is an area you do not believe is addressed in this document, please contact gridmod@bpa.gov with your suggestion.

This document is being provided for informational purposes only and has no impact on the BP-22 and TC-22 proceedings.

Contents

Base Schedule Timeline

Base Schedule Timeline – Day Ahead

Objective: To be compatible with EIM timelines, initial schedules for generation and load need to be provided ahead of the operating day.

Analysis: CAISO encourages parties to provide schedules as far as seven days ahead, but only require early schedule data at 10 a.m. of the day prior. Through the Phase III workshops, it was decided in the initial proposal to adopt an approach consistent with the other regional EIM entities to avoid seams issues.

Customer Impact:
- Transmission customers with resources or load in the BPA balancing authority area are encouraged to submit their initial transmission customer base schedules seven days prior to each operating day (T-7 days).
- Transmission customers may modify the proposed transmission customer base schedule at any time but shall submit a schedule by 10 a.m. of the day before the operating day.

Source: 9/29/20 Phase III Workshop **Status of decision:** Pending TC-22

Base Schedule Timeline – Real Time

Objective: To be compatible with EIM, the scheduling submittal timelines for generation and load in the BPA BAA need to be synchronized with the EIM scheduling timelines. The EIM uses these schedules for resource sufficiency assessments, market optimization and settlement calculations.

Analysis: In the Phase III workshops, it was decided in the initial proposal to adopt an approach consistent with the other regional entities to avoid seams issues.

Customer Impact:
- Transmission customers shall submit forecasts/schedules for each resource and load no later than T-77.
- Those forecasts/schedules can be modified consistent with NERC scheduling practices (T-20), but the values at T-57 will be financially binding for EIM settlements.

Source: 9/29/20 Phase III Workshop **Status of decision:** Pending BP-22 & TC-22

Base Schedule Timeline – Federal Generation

Objective: The federal generation base schedules must be provided to the BPA EIM Entity within the market timelines, and may be updated to pass the market resource sufficiency tests. Passing these tests ensures that the BPA BAA can fully participate in the market and minimizes exposure to over/under scheduling penalties.

Analysis: Federal generator base schedules will be submitted on the same timeline as other resources in the BAA. Those schedules will be provided to the BPA EIM Entity via internal systems being used to manage the hydro generation. After the T-57 submission deadline, and prior to the T-40 deadline (to provide base schedules to the market), the EIM Entity, in coordination with BPA hydro schedulers, may modify those base schedules in order to pass the EIM resource sufficiency tests.

Customer Impact:
- Federal generator base schedules will be submitted by BPA's hydro scheduling forming the financial binding basis for IIE and UIE.
- The EESC may make base schedule changes as appropriate for the purpose of passing the resource sufficiency tests up until T-40, enabling market participation and minimizing over/under scheduling penalties.

Source: 7/28/20 Phase III Workshop **Status of decision:** Internal Decision

Base Schedule Timeline – Non-Federal Generation

Objective: The generation base schedules for all generators in the BPA BAA must be provided to the BPA EIM Entity within the market timelines, contributing to the BAA's ability to pass the resource sufficiency tests and participate in the market while minimizing exposure to over/ under scheduling penalties.

Analysis: E-tags will be the source for non-federal base schedules if present. Absent e-tags, the generator forecasts entered into BPA's CDE system will be used as the source for non-federal generator base schedules. If the resource does not submit any schedule but generates anyway, the entire metered actual will be settled as UIE and the generator will incur other potential settlement and penalty impacts.

Customer Impact:

- If a non-federal generator submits schedules via e-tags, those e-tags will form the basis for that resource's base schedule (forecast).
- If a resource does not submit schedules via e-tags, the resource forecasts in CDE will be used for that resource's base schedule.
- These schedules form the basis for EIM settlements and performance penalties.

Source: 7/28/20 Phase III Workshop **Status of decision:** Draft Business Practice

EIM Settlements

Settlements – Timing and Data

Objective: Establish the timing and approach for BPA EIM entity settlements with transmission customers.

Analysis: This issue was discussed at length during the Phase III workshops. Critical factors discussed include making sure settlements were conveyed in a timely manner with clarity of charges and the visibility of the underlying data.

Customer Impact:

- The EIM transmission customer bill will be provided monthly with weekly publication of a statement containing the billing determinants from the previous week's settlements to customers.
- Customers will be able to get their detailed data in a similar manner to how they access metered data today.

Source: Phase III Workshops **Status of decision:** Internal business decision

Settlements – Measured Demand

Objective: Establish the appropriate basis for calculating "measured demand" – a key component of numerous settlement calculations.

Analysis: This issue was discussed at length during the Phase III workshops. Critical factors discussed are consistency with other EIM entities and fair allocation of charges. Consistent with other EIM entities and CAISO, measured demand for use in EIM settlements will be computed by

summing metered demand and e-tagged export megawatts from the BPA balancing authority area (excluding BPA EIM Transfers).

Customer Impact:
- BPA EIM entity settlement calculations will use metered demand in ways consistent with other EIM entities.

Source: 9/29/20 Phase III Workshop **Status of decision:** Pending BP-22

Settlements – Sub-allocated Charge Codes

Objective: Identify which EIM entity EIM settlement charge codes should be allocated to respective transmission customers and based on what factors.

Analysis: This issue was discussed at length during the Phase III workshops with the objectives of balancing the complexity while at the same time providing reasonable incentives and equity of market charges and credits.

Customer Impact:
- The following EIM entity settlement charge codes will be directly sub-allocated to BPA transmission customers:
  - Base codes via direct assignement - 64750, 64600, 64700
  - Neutrality codes via measured demand - 64770, 64740, 69850, 6478, 67740
  - Over/Under scheduling codes via imbalance by direction and metered demand by direction - 6045, 6046

Source: 8/25/2020 Phase III workshop **Status of decision:** Pending BP-22

Settlements – Unallocated Charge Codes

Objective: Identify which EIM entity settlement charge codes should not be allocated to transmission customers and instead be included in transmission rates and associated revenue requirements.

Analysis: This issue was discussed at length during the Phase III workshops with the objectives of balancing the complexity while at the same time providing reasonable incentives and equity of market charges and credits.

Customer Impact:
- Aside from the 10 sub-allocated EESC settlements charge codes, the remaining charge codes will not be sub-allocated directly to BPA transmission customers. See table below for list of remaining charge codes.
- These charge codes generally fall into the categories of administrative charges, flexible ramping charges, and real time bid cost recovery charges.

Source: 8/25/2020 Phase III workshop **Status of decision:** Pending BP-22

Table 1: Unallocated Charge Codes

CC #	Charge Code Name
701	Forecasting Service Fee
1592	EP Penalty Allocation Payment
2999	Default Invoice Interest Payment
3999	Default Invoice Interest Charge
4564	GMC-EIM Transaction Charge
4575	SMCR -Settlements, Metering, and Client Relations
4989	Daily Rounding Adjustment
4999	Monthly Rounding Adjustment
5024	Invoice Late Payment Penalty
5025	Financial Security Posting (Collateral) Late Payment Penalty

CC #	Charge Code Name
5900	Shortfall Receipt Distribution
5901	Shortfall Allocation Reversal
5910	Shortfall Allocation
5912	Default Loss Allocation
7070	Flexible Ramp Forecast Movement Settlement
7071	Daily Flexible Ramp Up Uncertainty Capacity Settlement
7076	Flexible Ramp Forecast Movement Allocation
7077	Daily Flexible Ramp Up Uncertainty Award Allocation
7078	Monthly Flexible Ramp Up Uncertainty Award Allocation
7081	Daily Flexible Ramp Down Uncertainty Capacity Settlement

CC #	Charge Code Name
7087	Daily Flexible Ramp Down Uncertainty Award Allocation
7088	Monthly Flexible Ramp Down Uncertainty Award Allocation
7989	Invoice Deviation Interest Distribution
7999	Invoice Deviation Interest Allocation
8526	Generator Interconnection Process GIP Forfeited Deposit Allocation
8989	Daily Neutrality Adjustment
8999	Monthly Neutrality Adjustment
66200	Bid Cost Recovery EIM Settlement
66780	Real Time Bid Cost Recovery Allocation EIM

Settlements – Energy Imbalance/Generation Imbalance Bands

Objective: BPA currently uses various mechanisms to incentivize proper scheduling behavior including defining energy imbalance and generation imbalance schedule performance bands with settlement implications.

Analysis: BPA proposes to rely on sub-allocation of EIM codes to manage EI/GI since this aligns with other EIM entities. This approach was also identified because it removes price index risk. Adopting this approach also reduces the impact of transitioning to the EIM schedule timelines. The charges/credits associated with the EIM imbalance charge codes provide incentive for customers to schedule accurately.

Customer Impact:

- The EI/GI deviation bands are proposed to not be applied for time frames when BPA is participating in the EIM.
- The EI/GI deviation bands will be maintained for time periods when BPA is not participating in the EIM.

Source: 9/29/20 Phase III Workshop **Status of decision:** Pending BP-22

Settlements – Disputes with the Market Operator

Objective: Processes and procedures are needed to describe how customers can dispute EIM settlements charges with CAISO.

Analysis: EIM disputes between a BPA transmission customer (excluding PR issues) and the market operator must be communicated through Bonneville since the MO relationship is with Bonneville as the EIM entity and not with BPA's transmission or interconnection customers. The process for these disputes must adhere to the MO tariff and must allow sufficient time for BPA settlements analysts to digest the concern and properly convey the issue to the CAISO. To evaluate

disputes, the BPA EIM entity must be able to identify the item that is being questioned in the settlement statement.

Customer Impact:

- If a dispute arises regarding an MO charge or payment to the BPA EIM entity that is subsequently allocated a transmission or interconnection customer and they wish to raise a dispute with the MO, the BPA EIM entity proposes to file the dispute on behalf of the customer by the 92nd business day (T+92B) following the day containing the disputed settlement.
- BPA proposes to require the customer to provide notice to the BPA EIM entity of its desire to initiate a dispute by e-mail that includes detailed information about the nature of the dispute at least 7 business days prior to the MO's T+92B deadline.
- BPA will provide notice to all Transmission customers via OASIS posting, both when dispute is submitted and also when the issue is resolved.

Source: 8/25/20 Phase III Workshop	**Status of decision:** Pending TC-22, EIM Business Practice

Settlements – Disputes with Bonneville

Objective: Processes will be provided for Customers to dispute BPA's sub-allocation of EIM charges.

Analysis: Bonneville supports a robust and thoughtful dispute resolution process and indeed understands that there is substantial detail associated with the sub-allocations data, systems and processes. To evaluate disputes, the BPA EIM Entity must be able to identify the item that is being questioned in the settlement statement.

Customer Impact:

- Disputes involving settlement statements between the BPA EIM entity and a transmission customer or interconnection customer are proposed to be resolved in accordance with the dispute resolution process set forth in BPA's OATT and business practices.
- Notice of the dispute will be initiated through the customer's Transmission Account Executive and must include detailed information about the nature of the dispute.

Source: 9/29/20 Phase III Workshop	**Status of decision:** Pending TC-22, EIM Business Practice

Energy Imbalance for Generation

Energy Imbalance for Generation – Deviation from Schedule

Objective: Bonneville needs to develop mechanisms to settle for each generator's deviations from its schedule that cover both periods when the BAA is participating in the EIM and for periods when the BAA is not participating in the EIM.

Analysis: For times when the BPA BAA is participating in the EIM, imbalance energy is provided by the market at 5- and 15-minute dispatches, so the EIM settlements of GI should be sub-allocated to transmission customers. And for times when the BPA BAA is not participating in the market, BPA is providing for the imbalance, so traditional GI settlement with BPA (Schedule 9) should occur.

Customer Impact:
- Imbalance energy due to generation deviations would be allocated to transmission customers for times when the BPA BAA is participating in the EIM.
- Traditional GI settlements would apply for times when the BPA BAA is not participating in the EIM.

Source: 9/29/20 Phase III Workshop/Tariff **Status of decision:** Pending TC-22, BP-22

Energy Imbalance for Generation – No Schedule Changes

Objective: The EIM settlement of imbalance for schedule changes after the T-57 base schedule deadline is treated differently than for metered deviations from the T-57 base schedules.

Analysis: During the Phase III workshops, BPA staff developed proposals for sub-allocating EIM charges for changes in generation. For times when no schedule changes are made after the base scheduling deadline, the imbalance would be settled as UIE. UIE affects resource sufficiency, over/under scheduling penalties and the potential for Operational Controls for Balancing Reserves.

Customer Impact:
- Imbalance for generators when no schedule changes occur for the resource after T-57 measured as the deviation of the transmission customer's metered generation compared to the resource component of the transmission customer's base schedule.
- Deviations would be settled as UIE at the nodal real-time dispatch price as calculated by the market operator.
-

Source: 9/29/20 Phase III Workshop/Tariff **Status of decision:** Pending TC-22, BP-22

Energy Imbalance for Generation –Schedule Changes

Objective: The EIM settlement of imbalance for schedule changes after the T-57 base schedule deadline is treated differently than for metered deviations from the T-57 base schedules.

Analysis: During the Phase III workshops, BPA staff developed proposals for sub-allocating EIM charges for changes in generation. Imbalance for generators when schedule changes occur for the resource after T-57 via manual dispatch, available balancing capacity dispatch or schedule revisions would be settled as instructed imbalance energy.

Customer Impact:
- Differences between the resource component of the transmission customer’s base schedule and the manual dispatch/available balancing capacity/revised schedule would be settled as IIE.
- Differences between the metered generation and manual dispatch/available balancing capacity /revised schedule would be settled as UIE.

Source: 9/29/20 Phase III Workshop/Tariff **Status of decision:** Pending TC-22, BP-22

Energy Imbalance for Load

Objective: The EIM settles imbalance for each specific load point and BPA needs to establish mechanisms to sub-allocate load imbalance for times when the BPA BAA is participating in the EIM.

Analysis: During the Phase III workshops, BPA staff developed proposals for sub-allocating EIM charges for those specific loads in a manner that is consistent with other regional EIM entities.

Customer Impact:
- Under current proposal, a transmission customer would be charged or paid for energy imbalance service - measured as the deviation of the transmission customer's metered load compared to the load component of the transmission customer's base schedule.
- This imbalance would be settled as uninstructed imbalance energy for the period of the deviation at the applicable load aggregation point price, where the load is located as calculated by the market operator.
- Prior to joining the EIM (and during times when the BPA BAA is not participating in the EIM), traditional EI settlement for loads would apply.

Source: 9/29/20 Phase III Workshop/Tariff **Status of decision:** Pending TC-22, BP-22

Energy Transfer System Resources

ETSRs – Approach for Governing EIM Flows

Objective: In the EIM, energy transfer system resources are the mechanism for managing the capacity of interchange that is made available to support within hour EIM imbalance energy transfers between adjacent EIM BAAs.

Analysis: For all EIM transfer paths, each BAA needs to identify the interchange transfer capacity that will be made available to support imbalance energy transfers between BAAs for the RTD market awards. This is done via definition of common transfer interchanges (dynamic ETSRs) and the BAA populating them with available MWs for the coming hour. For interchange paths with limited dynamic interchange availability, a comparable interchange (static ETSR) is defined and populated with the MWs reflecting the non-dynamic limit for the coming hour and used as a limit for FMM market awards.

Customer Impact:
- BPA will establish dynamic ETSRs for all EIM transfer paths for use in the RTD and static ETSRs for FMM on the Northwest AC Intertie, Pacific Direct Current Intertie and potentially the Montana interchange paths.

Source: ETSR Workshops **Status of decision:** Final

ETSRs – Existing ETSRs

Objective: BPA has enabled EIM transfers between existing EIM parties and clarity is needed to understand how those would be affected by BPA joining the EIM market.

Analysis: For existing EIM entities, BPA has required the scheduling party to have available transfer capability available on BPA's transmission paths. For new EIM transfers across BPA EIM transfer paths, BPA is requiring the donation of reserved transmission capacity. Analysis of how these two models can fit together with minimal impact on the existing EIM parties concluded that these existing EIM transfers would not be required to donate transmission capacity and could continue to use their existing methods.

Customer Impact:
- Existing EIM transfers will continue to be supported without any changes.

Source: ETSR Workshops	**Status of decision:** Final

Interchange Imbalance

Objective: Imbalance in EIM is not only attributed to load and generation. Interchange transactions can cause imbalance supplied by the EIM and should be clarified in BPA's EIM market definition and settlements model.

Analysis: Interchange imbalance calculates deviations between the interchange portion of a transmission customer's base schedule at T-57 and the schedule at the time of the applicable market run - and is assessed as IIE at the fifteen minute market locational marginal price or real-time dispatch LMP (or both).

Customer Impact: • Transmission customers with Interchange Imbalance are proposed to be assessed IIE at the FMM and/or RTD LMP.
Source: 9/29/2020 Phase III Workshop, draft tariff — **Status of decision:** Pending TC-22, BP-22

Intrachange Imbalance

Objective: Imbalance in EIM is not only attributed to load and generation. Intrachange transactions can cause imbalance supplied by the EIM market and should be clarified in BPA's EIM market definition and settlements model.

Analysis: Intrachange imbalance calculates deviations between the intrachange portion of a transmission customer's base schedule at T-57 and the schedule at the time of the applicable market run and is assessed as IIE at the FMM LMP or RTD LMP (or both). Unless requested to be assigned by Power Services or a transmission customer, consistent with BPA's EIM business practice, Intrachange Imbalance would be assigned to resources as IIE and to Load as UIE – and offsetting charges/credits will be applied to the source resources.

Customer Impact: • Transmission customers with Intrachange Imbalance are proposed to be assessed IIE at the FMM and/or RTD LMP. • The source resource responsible for an intrachange are proposed to be charged/credited an amount that exactly offsets the assigned amount.
Source: 9/29/2020 Phase III Workshop, draft tariff — **Status of decision:** Pending TC-22, BP-22

Generators in Network Model to be Modeled in EIM

Objective: The EIM awards and imbalance settlements are for the entire EIM footprint's load and include all generation modeled in the full network model. Bonneville typically models resources larger than 3 megawatts. BPA includes all of these modelled generators when calculating real-time and after-the-fact BAA load actual (generation – interchange), regardless of if they are in front of or behind the meter. For generators that don't submit e-tags, generation estimates via CDE are used.

Analysis: The BPA BAA has resources that meet the 3 MW threshold that are "behind the meter" today and not scheduled (only estimated). Because these resources are included in the network model, will be included in the EIM power/balance solutions, and result in EIM settlements, it is necessary that these resources be included in BPA's market model for EIM.

Customer Impact:	
• Resources meeting this criteria will be included in the EIM market model and will required to submit schedules/forecasts either via e-tags or CDE. • Other than timing requirements for scheduling and imbalance settlements, this is no different than today's scheduling or estimating requirements.	
Source: Phase III Workshop, draft tariff	**Status of decision:** Pending TC-22, BP-22

Losses for EIM Transfers

Objective: Determine whether imbalance energy dispatched by the EIM should incur transmission loss return obligations.

Analysis: This issue was discussed at length during the Phase III workshops. Noting this issue is distinct from the BPA's real power loss return rate or mechanisms and from the loss factor used in EIM. It was concluded in the Sept. 29, 2020, workshop that requiring loss returns on EIM transfers would present a barrier to EIM participation and Bonneville established the position of not requiring real power loss returns for imbalance energy dispatched via the EIM.

Customer Impact:	
• No loss return required for EIM transfers.	
Source: 9/29/20 Phase III Workshop	**Status of decision:** Pending TC-22

Metering Requirements

Objective: Assure BPA's metering requirements can fully meet the EIM needs.

Analysis: After further examination of Bonneville's metering specifications and the CAISO's requirements, no action is necessary for either generators or load in Bonneville's balancing authority area to comply with the CAISO's metering requirements if Bonneville decides to participate in the EIM.

Customer Impact:	
• None.	
Source: EIM Phase III Final Decision Document	**Status of decision:** Final

Non-federal Participating Resources

Non-federal Participating Resource – Requests

Objective: The EIM and resulting solutions benefit from increasing the supply of market-dispatchable resources. Participating in the EIM also offers additional marketing opportunities and benefits to participating generator owners and operators.

Analysis: EIM participation requires operational and technical modifications and agreements with the CAISO in order to submit bids and receive settlements. Non-federal generators located in the BPA balancing authority area will have the ability to participate in the EIM. BPA is in favor of additional participating resources and has decided to follow a request process that is consistent with other regional EIM entities.

Customer Impact:

- Bonneville will accept applications for non-federal resource participation starting seven days prior to BPA's parallel operations testing period.
- BPA will make available to interested parties an inventory of activities and actions that are required to enable customers to meet the requirements of participating resources.
- The application process will include a 45-day to six-month assessment period to evaluate the application.
- This process is intended to verify that the necessary systems and capabilities to participate as a participating resource are in place.

Source: EIM Phase III Final Decision Document, draft tariff

Status of decision: Pending TC-22

Non-federal Participating Resources – Service Agreement

Objective: Determine what type of service agreement is needed in order to allow a non-federal resources to elect to be a participating resource in the EIM while ensuring they are subject to the terms of the BPA tariff.

Analysis: Current EIM entities have adopted tariff language that requires participating resources to have either a Network Integration Transmission Service agreement, a firm Point-to-Point enabling agreement or a non-firm enabling agreement with the transmission provider associated with the EIM entity. In practice, the other EIM entities are using their non-firm enabling agreement for EIM participating resources not taking transmission service. BPA's PTP service agreement does not distinguish firm vs non-firm.

Customer Impact:

- Bonneville proposes to require participating resource's to have an existing NT or PTP service agreement in place with BPA.

Source: 7/28/20 Phase III Workshop

Status of decision: Pending TC-22

Over/Under Scheduling

Over / Under Scheduling – Allocation

Objective: The over/under scheduling penalty is designed to discourage EIM entities from leaning on the market.

Analysis: The CAISO applies the over/under scheduling penalty consistently for all EIM entities - when the following two conditions are not met:

- The BAA scheduled within 1% of the CAISO's area load gorecast.
- The BAA scheduled within 5% of its actual area load.

During Phase III workshops, BPA proposed to sub-allocate the penalty in a manner consistent with other regional EIM entities.

Customer Impact:	
• Consistent with the methods used by other EIM entities, BPA proposed that over scheduling and under scheduling charges for schedules that deviate from metered amounts be allocated proportionately to schedules that deviate in the direction that the BAA as a whole deviates from the CAISO BAA load forecast.	
Source: 7/28/20 Phase III Workshop	**Status of decision:** Pending BP-22

Over / Under Scheduling – Distribution of Credits

Objective: The over/under scheduling penalty is designed to discourage EIM entities from leaning on the market to serve load.

Analysis: This penalty gets allocated to infracting entities. Credits for the over/under scheduling penalty are paid by the market operator to the EIM entity. BPA proposed to distribute the credits to customers whose base scheduling is within the expected ranges on the basis of metered demand.

Customer Impact:	
• Payments to the BPA EIM Entity for Over / Under scheduling credits are proposed to be distributed to transmission customers on the basis of metered demand - whose daily average absolute imbalance is less than 5% or 2 MW (whichever is greater) of its daily average schedule.	
Source: 7/28/20 Phase III Workshop	**Status of decision:** Pending BP-22

Resource Sufficiency Sub-allocation

Objective: In order to fully participate in the EIM, the BPA balancing authority area as a whole needs to pass the EIM resource sufficiency evaluation ahead of each operating hour.

Analysis: Since the Bonneville BAA includes a substantial amount of independent load serving entities and third party owned/operated generation, passing the RS tests each hour is partly dependent on how accurately those entities schedule. Consideration was given as to whether to allocate a share of the RS obligations to those parties. There is no precedence for this and the policy could be complex. BPA has structures in place to pass the RS tests aside from the balancing test, and the over/under scheduling penalty provides motivation for all LSEs to submit balanced schedules.

Customer Impact:	
• Bonneville proposes to not adopt any sub-balancing authority area RS scheduling policies for the start of EIM participation.	
Source: EIM Phase III Final Decision Document	**Status of decision:** Final

Transfer Service Costs

Objective: BPA currently incurs EIM uninstructed imbalance energy, instructed imbalance energy and neutrality charges for transfer services customers.

Analysis: BPA currently treats EIM charge code costs/credits (UIE, IIE, neutrality) incurred for transfer service for load following customers as a transfer service cost in the Composite Cost Pool. For Slice transfer service customers, BPA directly assigns UIE and IIE and includes neutrality charges/credits for Slice customers served by transfer service as transfer service cost in the Composite Cost Pool. Evaluation suggests the best approach is to seek EIM charge code comparability for transfer customers.

Customer Impact:
- Load Following and Slice transfer customers should receive the same type of charges that Load Following and Slice customers would receive on BPAT's system.
- Note: This would not be the same amount of charge, but the same type of charge.

Source: 8/26/20 Phase III Workshop **Status of decision:** Pending BP-22

Transmission Donations

Transmission Donations – Interchange Rights Holder Methodology

Objective: The EIM requires that interchange capacity between adjacent EIM entities be made available to the market to support EIM transfers between Bonneville and other EIM Entity BAAs.

Analysis: BPA staff analyzed the two transmission models offered by the CAISO and discussed the pros and cons with customers. BPA has selected the Interchange Rights Holder Methodology to support making interchange capacity available to the EIM.

Customer Impact:
- BPA transmission customers may donate transmission rights to facilitate EIM transfers between the BPA BAA and other EIM entity BAAs.

Source: Phase I workshops, Phase II ROD **Status of decision:** Final

Transmission Donations – Transmission Product

Objective: Determine which transmission products should be eligible for Interchange Rights Holder Methodology donation of transmission for EIM transfers.

Analysis: BPA staff have analyzed whether to allow only firm point-to-point transmission donations (as other EIM entity tariffs require) or to also allow donations of non-firm PTP transmission. Stakeholder input was sought through the Phase III workshops. In BPA's initial proposal, BPA staff have proposed to allow both non-firm and firm PTP transmission donations for EIM.

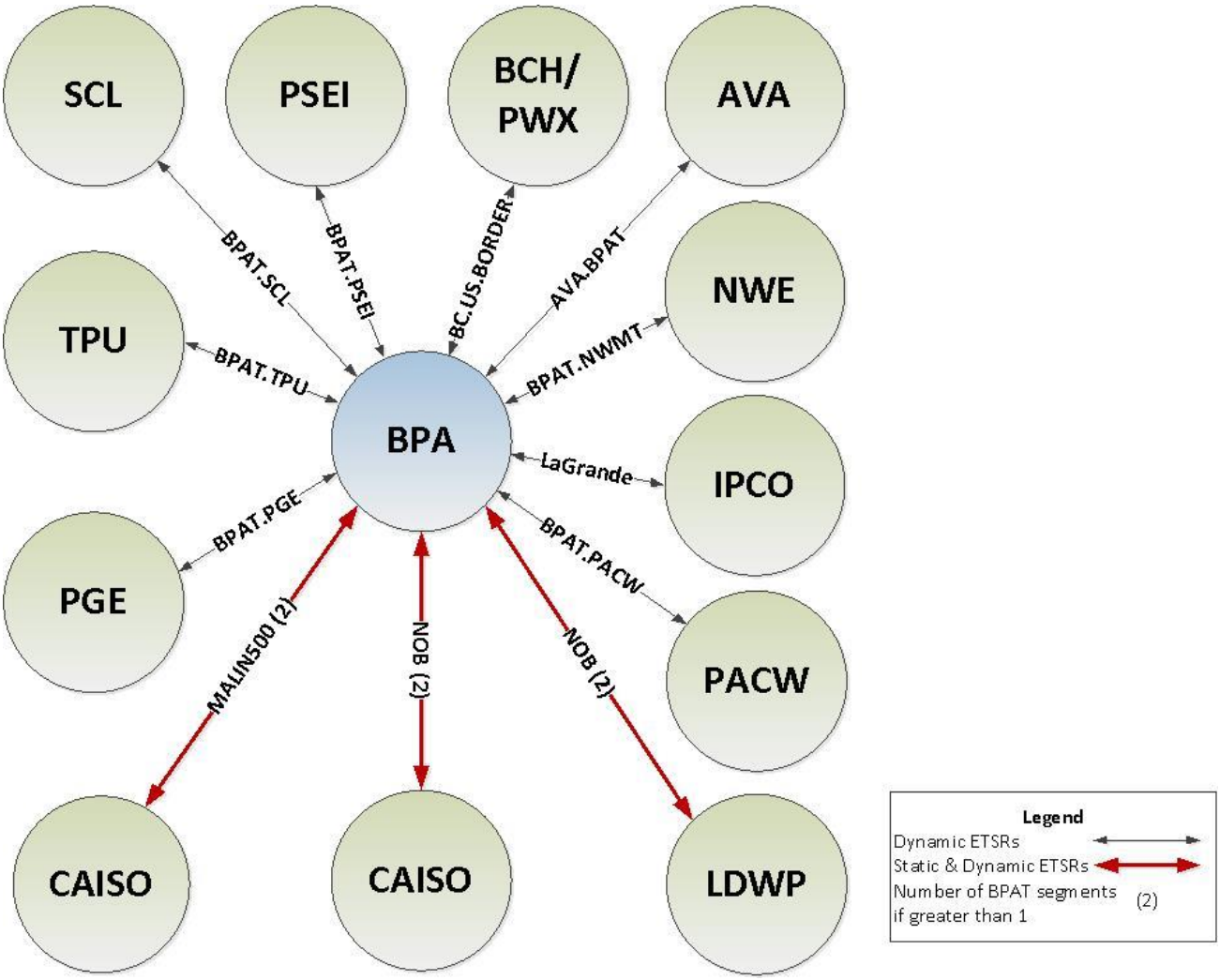
Customer Impact:
- Customers can donate firm or non-firm PTP transmission for BPA EIM transfers.

Source: Phase III workshops, draft tariff **Status of decision:** TC-22

Transmission Donations – EIM Transfer Paths

Objective: In order to identify and manage EIM transfers, directional EIM transfer paths need to be uniquely defined and modeled in the EIM consistently by adjacent EIM entities.

Analysis: BPA staff have collaborated with all adjacent BAAs who are or will be EIM entities at the planned go-live date to model the interchange for purposes of administering EIM transfers between the BAAs. A specific set of directional EIM interchange paths have been collaboratively developed.



Customer Impact:

- Transmission customers will need to be aware of the specific EIM transfer paths that have been established.
- All available paths will be published in the EIM BP.

Source: Phase III workshops, draft tariff **Status of decision:** TC-22

Transmission Donations – Donating Transmission

Objective: In order to enable EIM transfers between Bonneville and adjacent EIM BAAs, Transmission capacity will need to be donated by BPA Transmission Customers for each EIM Transfer path, for each direction, and for each hour.

Analysis: To donate Bonneville transmission for EIM use, BPA transmission customers will simply need to establish PTP reservations via redirects or purchases on the specified EIM transfer paths. Because BPA is doing all of the downstream processing to convey info to the CAISO, including authoring of e-tags and after-the-fact accounting, the reservations need to be confirmed no later than T-77 of each operating hour. If no transmission is donated for a particular path, EIM transfers on that path will not be available for that time period.

Customer Impact:	
• Transmission customers wanting to donate transmission capacity for EIM transfers will need to complete reservation transactions for each specific transfer path by T-77 each hour.	
Source: Phase III workshops, draft tariff	**Status of decision:** TC-22

Transmission Donations – Conveying Limits to CAISO

Objective: The donated transmission capacity being made available for EIM transfers must be conveyed to CAISO consistent with market model configurations and within market timelines.

Analysis: BPA will collect the EIM donated reservation capacity at T-77 for each EIM transfer path, author e-tags, and submit the EIM transfer limits to CAISO each hour. The market will use this donated capacity as a limiting factor in the market dispatch solutions.

Customer Impact:	
• None.	
Source: Phase III workshops, draft tariff	**Status of decision:** None

Transmission Donations – e-tags and Losses

Objective: The market uses e-tags as the vehicle for documenting interchange resulting from market dispatches. Transmission loss returns are typically required for transmission across BPA's system.

Analysis: BPA will develop automation that accumulates the donated transmission and create (or update) e-tags reflecting the path, MW, and transmission customer(s) in advance of the hour. Bonneville will update those tags to reflect EIM transfer energy dispatches and accordingly convey that change in interchange flows to the market. BPA also discussed transmission losses for EIM transfers with customers & determined to exempt them from loss returns.

Customer Impact:	
• The BP-22 and TC-22 Initial Proposals propose there will be no transmission loss return required for BPA EIM transfers (includes wheel-through and BPA EIM transfers) if and when BPA joins and is participating in the EIM.	
Source: Phase III workshops, draft tariff	**Status of decision:** TC-22

Variable Energy Resource Balancing Service

Objective: Establish variable energy resource scheduling and balancing service that is simpler, easier to administer and that is consistent with the EIM participation.

Analysis: In order to accommodate EIM with a model that simplifies VERBS, it was determined that the scheduling elections (previously provided for 30/60, 30/15, and Uncommitted scheduling options) should be eliminated and replaced with the use of forecast scheduling only.

Customer Impact:

- VER customers taking balancing service will receive BPA's VER reliability forecast and are expected to submit schedules that are consistent with the signal or that result in less imbalance for the scheduling period.
- These changes will apply both in and out of the EIM.

Source: 9/29/20 Phase III Workshop **Status of decision:** Pending BP-22 & TC-22

Intentional Deviation

Objective: Intentional deviation remains an important schedule performance factor and the model needs to be compatible with EIM and the new VER scheduling practices.

Analysis: The previous ID design was created to accommodate scheduling elections and with those elections changing, the ID design needed to change accordingly.

Customer Impact:

- The new approach is to measure ID based on the hourly forecast and account for schedule changes made after T-57 as well as to exclude market dispatches from the measurement of station control error.

Source: 9/29/20 Phase III Workshop **Status of decision:** Pending BP-22

Persistent Deviation

Objective: Persistent deviation remains an important schedule performance factor and needs to be adjusted to be compatible with the EIM scheduling timelines.

Analysis: To be compatible with the EIM timelines, the design needs to be changed to accommodate schedule changes made after the EIM T-57 timeline. Analysis and discussion determined that the most suitable approach for PD is to establish its own rate provisions and limit the application of PD to uninstructed imbalance energy.

Customer Impact:

- The new approach moves PD into its own rate schedule provision consistent with other penalty rates. It limits the application of PD to only the UIE portions of EI and GI.

Source: 9/29/20 Phase III Workshop **Status of decision:** Pending BP-22