

TC-22, BP-22 and EIM Phase III Customer Workshop

August 25, 2020



AGENDA REVIEW AND FEEDBACK FROM PRIOR WORKSHOP

Agenda

| Day 1 – August 25, 2020 | | |
|-------------------------|--|--|
| TIME* | TOPIC | Presenter |
| 9:00 to 9:15 a.m. | Agenda and Summary | Rebecca Fredrickson Rachel Dibble |
| 9:15 to 9:40 a.m. | EIM Tariff Update | Melanie Bersaas Sarah Kutil Rich Greene Roger Bentz Tim Loepker |
| 9:40 to 10:15 a.m. | Real Power Losses on EIM Transfers | Todd Kochheiser Tracey Salazar |
| 10:15 to 10:45 a.m. | Donation Timing for ETSR <ul style="list-style-type: none"> Steps 5 & 6 | Tracey Salazar Todd Kochheiser Eric King |
| 10:45 to 11:45 p.m. | Generation Interconnection: <ul style="list-style-type: none"> Steps 5 & 6 | Tammie Vincent Cherilyn Randall Ava Green |
| 11:45 to 12:45 p.m. | LUNCH | |
| 12:45 to 1:00 p.m. | Resource Sufficiency Update | Matt Hayes Mariano Mezzatesta Libby Kirby Frank Puyleart |
| 1:00 to 3:45 p.m. | Transmission Losses: Step 5 & 6 <ul style="list-style-type: none"> Loss Factor Pricing Cost recovery (billing determinants and rate design) | Mike Bausch Andy Meyers Margo Kelly Eric Taylor Daniel Fisher |
| 3:45 to 5:00 p.m. | Transmission Rates <ul style="list-style-type: none"> Charge Code Cost Allocation | Miranda McGraw Derrick Pleger Eric Taylor Zach Mandell Libby Kirby |

* Times are approximate

7/28 & 7/29-30 Workshop - Customer Comments

| Topic | Comment Summary | BPA Response |
|---------------------------|--|--|
| Work Plan & Schedule | <ul style="list-style-type: none"> • Please add a second customer-led workshop the week of August 31 • Please move the 9/22 meeting out at least two weeks to allow adequate time for staff to consider customer comments submitted by 9/18 • If any new concepts are delivered at August workshops, suggest delaying customer comment deadline | <ul style="list-style-type: none"> • We are looking at additional customer led workshop and will send out a tech forum. • We will move the workshop to September 29 from Sept 22 |
| PR & NPR Requirements | <ul style="list-style-type: none"> • Support staff recommendation of Alternative 1 • Continue to monitor the issue to better understand changes to transmission purchasing behavior or other unintended consequences | <ul style="list-style-type: none"> • Thank you for your comments • BPA will be monitoring transmission purchase behavior. |
| Base Schedule Timeline | <ul style="list-style-type: none"> • Supports staff recommendation of T-57 submission deadline • Consistent/aligns with neighboring EIM BAAs | <ul style="list-style-type: none"> • Thank you for your comments |
| Southern Intertie Studies | <ul style="list-style-type: none"> • Differing entities voiced support for all three alternatives • Support for Alts 2 and 3 noted consistency with FERC OATT • Support for Alt 1 noted opposition to any alternative that allows lower queued requests to clear the queue. | <ul style="list-style-type: none"> • Thank you for your comment. Based on customers comments we are leaning towards alternative #3 |
| Seller's Choice | <ul style="list-style-type: none"> • Customer group proposes to maintain through FY23 that includes an annual MW cap • Continued uncertainty around planning and Mid-C impacts | <ul style="list-style-type: none"> • Thank you for your comments, we will be addressing the comments in a customer led workshop on 9/9 |

7/28 & 7/29-30 Workshop - Customer Comments

| Topic | Comment Summary | BPA Response |
|--------------------------------|--|--|
| Gen Inputs: General | <ul style="list-style-type: none"> • T-57 will likely result in increased imbalances • How will OCBR and OMP be handled in an EIM? • Adopt policies that incent accurate scheduling behaviors • Sharing of EIM revenues would be another incentive for scheduling accurately. • Need to avoid duplicate charges. • Further clarification on how charges would be allocated would be helpful. • Commit to reviewing scheduling accuracy prior to BP-24 | <ul style="list-style-type: none"> • These comments will be addressed in the Gen Inputs presentation on 8/26 |
| Gen Inputs: EI/GI Bands | <ul style="list-style-type: none"> • General support for alternative 3., removal of existing EI/GI deviation bands • FERC doesn't support EI/GI bands • Concerns with financial impacts to renewables if adopt LMP pricing without removing bands | <ul style="list-style-type: none"> • Thank you for your comments |
| Gen Inputs: PD/ID Penalties | <ul style="list-style-type: none"> • Some support for removing PD/ID penalties • Some support for Alts 2 or 3, based on continued development of details. • Penalties should not necessary if EIM appropriately incentives good scheduling behavior. | <ul style="list-style-type: none"> • Thank you for your comments |
| Revenue Requirements | <ul style="list-style-type: none"> • Leverage policy should continue to be clarified, possibly through a separate stakeholder process • BPA should further clarify its assets and debts. • Clarify how higher expenses might qualify for regulatory asset treatment. | <ul style="list-style-type: none"> • Thank you for your comments we will address the leverage policy in a separate stakeholder process. |

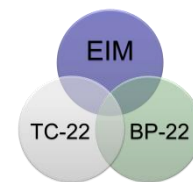
7/28 & 7/29-30 Workshop - Customer Comments

| Topic | Comment Summary | BPA Response |
|-------------------------------------|--|--|
| Transmission Rates: EIM Charge Code | <ul style="list-style-type: none"> • Scenario analysis was helpful but seek additional clarifications around relationship between base codes and neutrality codes • General support for BPA approach to delaying sub-allocation of certain codes until more data is available. • Clarify impact to sub-BAs within the BPA BAA • To the extent possible, the basic principle of cost-causation should be applied. • EIM revenues should be leveraged to cover EIM costs • Consider extension of interim period to acquire additional information. • Be conscientious of too many changes too soon creating unintended consequences • Non-firm schedules should not create undue financial costs to firm customers • Preserve priority and value of long-term rights • How can improved information from CAISO improve sub-allocation policies? • Further clarification on direction of allocation for Over/Under Scheduled Load • Better address feasibility of both BPA and customer implementation of EIM settlements | <ul style="list-style-type: none"> • These comments will be addressed in the presentation on 8/26 |

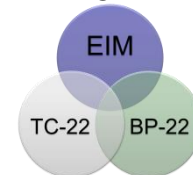
7/28 & 7/29-30 Workshop - Customer Comments

| Topic | Comment Summary | BPA Response |
|------------------------------|---|--|
| Power Rates: Tier 2 | <ul style="list-style-type: none"> Support no carbon adder for BP-22 | <ul style="list-style-type: none"> BPA will not propose a carbon adder in BP-22 Tier 2 rates. |
| Power Rates: EIM Benefits | <ul style="list-style-type: none"> General support for Off the Top option 1 Surprise and concern by BPA’s \$2.4M annual benefit analysis compared to E3 evaluation of \$36-40M that drove BPA’s recommendation to pursue EIM Support BPA using a benefit level higher than \$2.4M in BP-22. Benefit estimate should be re-examined prior to BP-24. | <ul style="list-style-type: none"> Staff also supports Off-the-top option 1 E3 study is a reasonable representation of BPA’s future-state EIM benefits, with mature participation and market experience. E3 study does not reflect BPA’s expected near-term benefits in BP-22, due to our new entrance into market, more conservative participation as we gain experience with market mechanics, the partial rate period, and other uncertainties. BPA’s BP-22 proposal is to set EIM dispatch benefits equal to EIM costs. BPA plans a more robust evaluation for BP-24. |

EIM Priority Issues



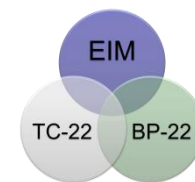
| # | Issue | BP-22 | TC-22 | Future BP/TC |
|----|--|-------|-------|--------------|
| 1 | EIM Charge Code Allocation | X | ? | X |
| 2 | EIM Losses | X | X | ? |
| 3 | Resource Sufficiency | X | X | ? |
| 3a | - Balancing Area Obligations | X | X | ? |
| 3b | - LSE Performance & Obligations | X | X | ? |
| 3c | - Gen Input Impacts | X | X | ? |
| 4 | Development of EIM Tariff Changes | | X | ? |
| 5 | Transmission Usage for Network | X | X | ? |
| 6 | Requirements for Participating & Non-Participating Resources | X | X | ? |
| 6a | - Participating Resources: Base Scheduling Timeline | | | |
| 7 | Metering & Data Requirements | | X | ? |
| 8 | Evaluation of Operational Controls | X | X | ? |



Rates & Tariff Topics

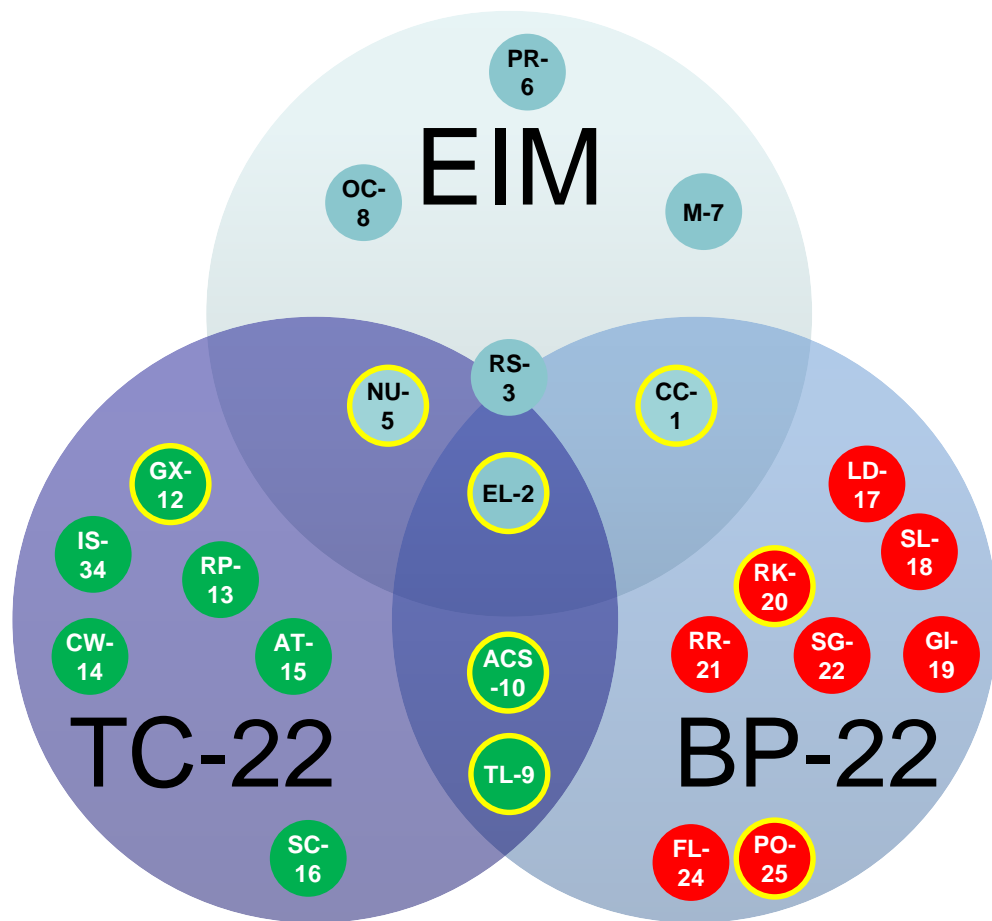
| # | Topics | BP-22 | TC-22 | Future BP/TC |
|----|--|-------|-------|--------------|
| 9 | Transmission Losses | X | X | |
| 10 | Ancillary Services (Gen Inputs) | | X | ? |
| 11 | Debt Management (Revenue Financing) | X | | |
| 12 | Generator Interconnection | | X | |
| 13 | Regional Planning | | X | |
| 14 | Creditworthiness | | X | |
| 15 | Incremental/Minor Changes to Agreement Templates | | X | |
| 16 | Seller's Choice | | X | |
| 17 | Loads | X | | |
| 18 | Sales | X | | |
| 19 | Gen Inputs (assumed for BP-22) | X | | |
| 20 | Risk | X | | |
| 21 | Revenue Requirements | X | | |
| 22 | Review of Segments | X | | |
| 23 | Review of Sale of Facilities | X | | |
| 24 | Financial Leverage Policy Implementation | X | | |
| 25 | Power-Only issues | X | | |

Potential Future Rates & Tariff Issues



| # | Issue | BP-22 | TC-22 | Future BP/TC |
|----|---|-------|-------|--------------|
| 26 | Simultaneous Submission Window | | | ? |
| 27 | Study Process | | | ? |
| 28 | Attachment C (Short-term & Long-term ATC) | | | ? |
| 29 | Hourly Firm (TC-20 Settlement – Attachment 1: section 2.c.ii) | | | ? |
| 30 | Required Undesignation | | | ? |
| 31 | Reservation window for Hourly non-firm | | | ? |
| 32 | Non-federal NT Redispatch | | | ? |
| 33 | PTP/NT Agreement Templates | | | ? |
| 34 | Southern Intertie Studies | | | ? |
| 35 | De minimus (TC-20 Settlement) | | | ? |


BP-22, TC-22 & EIM Integrated Scope



| TC | |
|--------|---------------------------|
| TL-9 | Transmission Losses |
| ACS-10 | Ancillary Services |
| GX-12 | Generator Interconnection |
| RP-13 | Regional Planning |
| CW-14 | Creditworthiness |
| AT-15 | Agreement Templates |
| SC-16 | Seller's Choice |
| IS-34 | Intertie Studies |

| BP | |
|-------|----------------------|
| LD-17 | Loads |
| SL-18 | Sales |
| GI-19 | Gen Inputs |
| RK-20 | Risk |
| RR-21 | Revenue Requirements |
| SG-22 | Segmentation |
| FL-24 | Financial Leverage |
| PO-25 | Power-only |

| EIM | |
|------|-------------------------|
| CC-1 | Charge Code Allocation |
| EL-2 | EIM Losses |
| RS-3 | Resource Sufficiency |
| NU-5 | Network Usage |
| PR-6 | Participating Resources |
| M-7 | Metering |
| OC-8 | Operational Controls |

 XX-# Yellow Outline Denotes Current Workshop Topics

WORKPLAN AND PROPOSAL

Engaging the Region on Issues

- After every workshop, BPA will provide a two-week feedback period for customers.
 - Input can be submitted via email to techforum@bpa.gov. Please copy your Power or Transmission Account Executive on your email.
- Issues will be presented according to the following process at workshops (multiple steps might be addressed in a single workshop):

Phase One: Approach Development

Step 1:
Introduction & Education

Step 2:
Description of the Issue

Phase Two: Evaluation

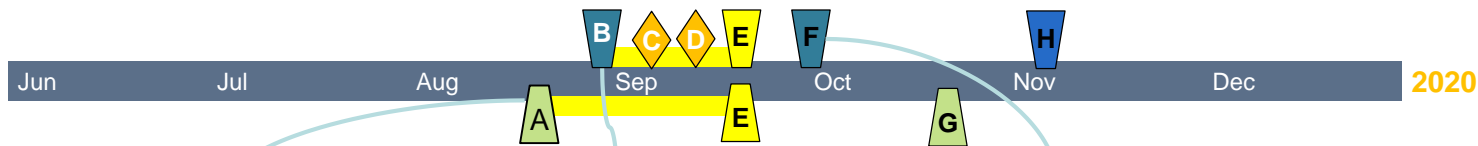
Step 3:
Analyze the Issue

Step 4:
Discuss Alternatives

Phase Three: Proposal Development

Step 5:
Discuss Customer
Feedback

Step 6:
Staff Proposal



Phase III EIM Draft Letter (8/14):

Decision Finalized in EIM Letter

- Sub Allocation of Resource Sufficiency
- Non Federal Resource Participation
- Metering
- EIM Losses

Other decisions that will be part of the Tariff or Rate Case

August 25-26, 2020

- Summary of Topics & Policy – Staff Leaning through the end of August
- EIM Tariff Update
- Real Power Losses on EIM Transfers **EL-2**
- Donation Timing for ETSR **NU-5**
- Generation Interconnection
 - Steps 5 & 6 **GX-12**
- Transmission Losses Steps 5 & 6
 - Loss Factor **TL-9**
 - Pricing
- Transmission Rates
 - EIM Charge Code Implementation **CC-1**
- Ancillary Services: Generation Inputs
- Functionalization of Grid Modernization Costs **ACS-10**
- Risk
- Power Rates
 - Loads & Resources **RK-20**
 - Gas and Market Price
 - Transfer Service
 - Follow-up: Treatment of EIM Charge Codes **PO-25**
 - Follow-up: Section 7(f) Power Rate Options
 - Forecasts
 - Secondary Revenue Forecast
 - Net Secondary Revenue Proposal

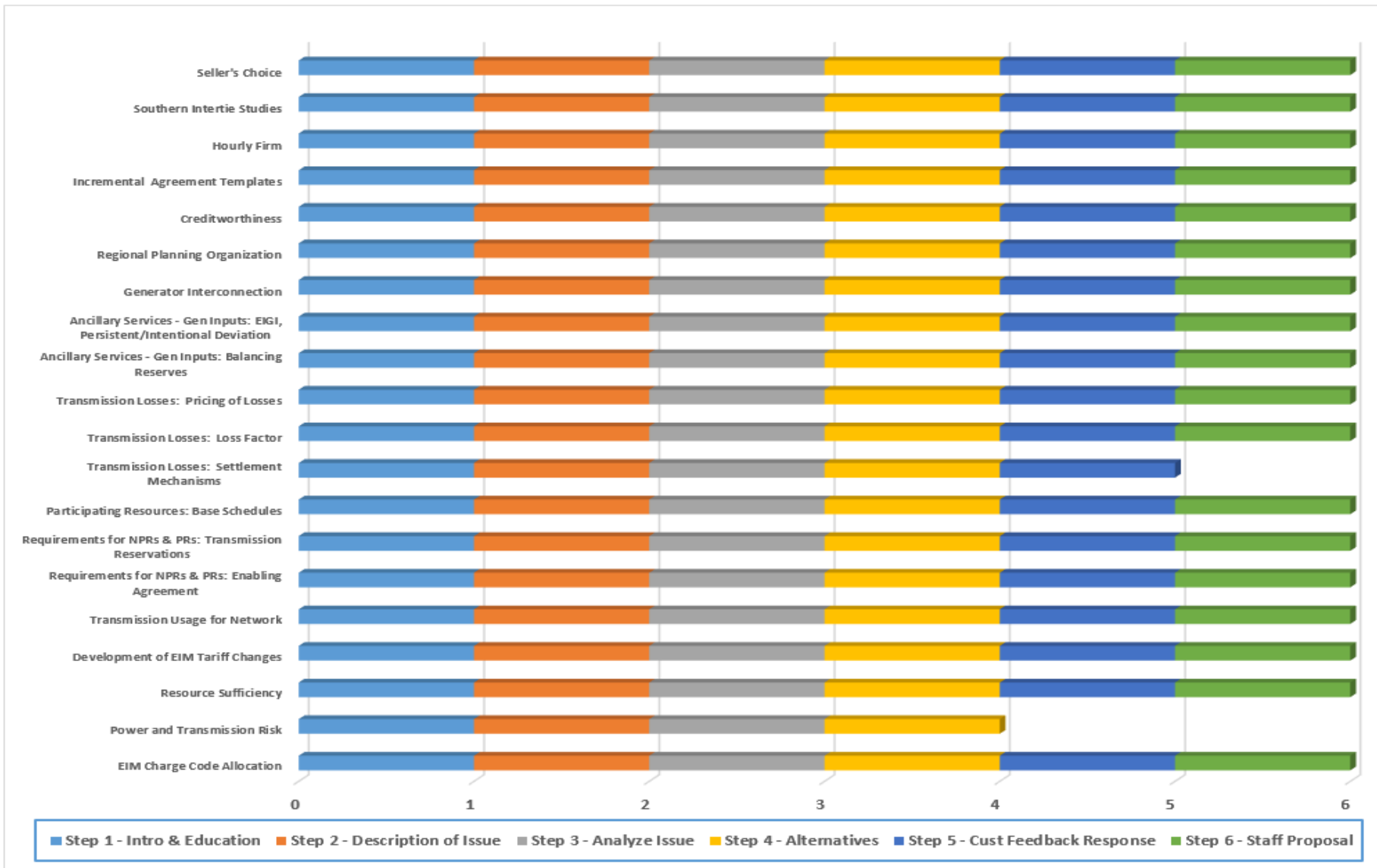
September 29, 2020

- Update on Losses
- Update on Risk
- Power Rates Wrap up
- Losses schedules
- EIM Charge Code GRSP Language
- Generation Inputs GRSP Language for Select Sections (EI/GI and PD/ID)
- Tariff update

Timeline Key

- A. 8/14: EIM Phase III Draft
- B. 8/25-26: August Workshop
- C. 9/1: Customer Led Workshop
- D. 9/9: Customer Led Workshop
- E. 9/18: Customer Comment Deadline
- F. 9/29: (September Workshop)
- G. 10/14: EIM Phase III Letter
- H. November: TC-22 & BP-22 Initial Proposal

Status of Topics Through August Workshops



ISSUE #4: EIM TARIFF LANGUAGE UPDATE

EIM tariff language sections added or updated in August

| Tariff Section |
|---|
| Att Q, Section 1 – General Provision - Purpose and Effective Date of Attachment Q |
| Att Q, Section 4.1.1.3(3) – Determination of EIM Implementation Decisions for BPA's BAA |
| Att Q, Section 4.1.5 – Settlement of MO Charges and Payments |
| Att Q, Section 4.2.3 and Section 7 – Outages |
| Att Q, Section 4.2.4.2 – Transmission Customers with Non-Participating Resources that are Variable Energy Resources |
| Att Q, Section 5.2 – Provision of EIM Transfer Capacity by a BPA Interchange Rights Holder |
| Att Q, Section 8 – EIM Settlements and Billing |
| Att Q, Section 10 – Market Contingencies |
| OATT Schedule 9 – Generator Imbalance Service |

Tariff Language Related to Settlements and Billing

- Att Q, Section 8 – EIM Settlements and Billing & Att Q, Section 4.1.5 – Settlement of MO Charges and Payments
 - Provides details on how EIM settlements and billing works
 - Most of the information in this section will be reflected in rate schedules

Tariff Language Related to Market Contingencies and Use of Temporary Schedules

- Att Q, Section 10 – Market Contingencies
 - Tariff language in Section 10 describes market contingencies and when temporary schedules would be used
 - Market contingencies could include temporary suspension, termination of participation in EIM, operational circumstances or disruption of communication with Market Operator
 - Impacts Schedules 4, 9 – points to rate schedules
 - Modified Schedule 9 to include Temporary Schedule 9
 - Section A of Schedule 9 would be used for participation in the EIM, Section B will be a Temporary Schedule 9 and is the same language BPA used in the TC-20 Schedule 9
 - Temporary Schedule 9 will be used for portion of rate period that BPA is not in EIM and for market contingencies outlined in Att Q, Section 10
 - Temporary Schedule 9 could not be placed in Attachment Q, since Attachment Q is not applicable until EIM goes live in BPA BAA
 - Added language to Att Q, Section 10.3.1 – Corrective Actions for Temporary Contingencies to make it clear that the BPA EIM Entity may take corrective actions as it deems appropriate if a contingency described in Section 10.3 were to occur

Tariff Language Related to Outages

- Att Q, Section 7 & Section 4.2.3 – Outages
 - Describes how EIM Entities deal with outages
 - Refer to Outages presentation for more details

Other Tariff Sections Added or Updated

- Att Q, Section 1 – General Provision - Purpose and Effective Date of Attachment Q
 - Updated to reflect EIM Phase III draft decision to delay non-federal resource participation until 6 months after EIM go-live
- Att Q, Section 4.1.1.3(3) – Determination of EIM Implementation Decisions for BPA's BAA
 - Tariff language that allows BPA to use either the CAISO load forecast or BPA's load forecast for setting base schedules.
 - See Resource Sufficiency presentation for more details
- Att Q, Section 4.2.4.2 – Transmission Customers with Non-Participating Resources that are Variable Energy Resources
 - Refer to Gen Inputs: VER Forecast/Scheduling presentation for more details.
- Att Q, Section 5.2 – Provision of EIM Transfer Capacity by a BPA Interchange Rights Holder
 - Refer to Participating Resources: Timing for Transmission Donations for ETSRs presentation for more details.

Other Tariff Language

- Schedule 1A – EIM Administrative Service
 - For BP-22 and TC-22, BPA is not proposing to sub-allocate the EIM Administrative charges, so there is not a need for a separate schedule at this time.

EIM TARIFF OUTAGE POLICY LANGUAGE

The Issue

- BPA's proposed EIM tariff language uses PGE's EIM tariff as a starting point
 - See [Review Tariff Language Approach for TC-22 Workshops Presentation](#) (4/28/20)
- PGE's EIM tariff outage language differs from BPA's outage policy
 - It was drafted prior to PEAK RC establishing an outage policy and RC West becoming the Reliability Coordinator (RC)
 - BPA's outage policy is designed to comply with RC requirements
- PGE's language provides an incomplete view of all of BPA's outage policy requirements

PGE's Outage Language

- PGE's tariff references time specific outage reporting requirements that are found in the MO Tariff
 - PGE's tariff calls for outages to be reported "7 or more days in advance and preferably at least 30 days in advance of the outage"
- PGE's tariff was drafted prior to Peak RC's establishment of an RC Outage Coordination Policy and RC West becoming a RC in 2019
 - As a result, it contains outdated language from an RC perspective
 - However, it accurately reflects the MO Tariff requirement for EIM Entities

RC West Outage Language (RC 0630)

- The RC 0630 Outage Coordination Process was developed in 2018 to address the outage review and coordination process performed by the RC Operator after the completion of the RC West Operational Planning Analysis in preparation for next day operations
- CAISO uses the same outage management system (webOMS) for both the Western EIM and RC West services
- The webOMS system **will not allow** Planned outages 7 days in advance of the outage start date
 - webOMS enforces the rules of the RC 0630 timelines

BPA Outage Planning and Coordination Policy

- The BPA Outage Planning and Coordination Policy is oriented around compliance with RC Outage Coordination Process
 - There are several NERC Reliability Standards (IRO, TOP, FAC), along with CAISO's SOL methodology, that set forth rules regarding the study of outages
 - BPA's TOP-003-3 Data Request and Specification references the BPA Outage Policy and determines who is subject to those requirements
- To meet these Reliability Standards, BPA must have timelines set **ahead** of CAISO's timelines
- The BPA Outage Policy aligns with established processes within CAISO as a BA, for which it happens to act upon as the EIM Entity
 - It has Long-Range, Mid-Range and Short-Range timelines which allow for coordination to be done at BPA with neighboring utilities ahead of CAISO timelines and meet requirements of the MO Tariff and RC 0630

Issue: Alternatives

Alternatives

- Alt. 1 – Adopt PGE tariff language and retain MO outage language and timelines
- Alt. 2 – Deviate from PGE’s tariff language and reference the BPA Outage Policy
- Alt. 3 – Deviate from PGE’s tariff language and reference the CAISO RC0630 Outage Coordination Process, TOP-003-3 Data Request and Specification and the MO Tariff

Issue: Staff Proposal

Staff Proposal and Next Steps

- Staff supports Alternative 2
 - Provides complete customer guidance for outage reporting
 - CAISO uses the same outage management system for both the Western EIM and RC West services
 - Compliance with BPA's outage policy ensures customer compliance with the MO tariff language on outages

ISSUE #2: REAL POWER LOSSES ON EIM TRANSFERS

Review of Issue

- In the March workshop, BPA stated that it is exploring whether donated transmission would incur a wheeling loss obligation (slide #18).
- In the June workshop, BPA stated that it intended to charge losses on EIM transfers.
 - While exempting loss paybacks for EIM Transfers would remove a hurdle to donation, given the financial obligation of the EIM Entity for any incremental losses created by and supplied by market energy, BPA should retain its existing practice of assessing loss returns on donated transmission for EIM transfers to minimize the financial risk to BPA and its customers.
- BPA received a number of comments asking BPA to reconsider this recommendation because it creates a disincentive to donate transmission for EIM and may result in over-collection of loss revenues.

EIM Neutrality and Losses

- The EIM (or the BAA via regulation) will dispatch energy to cover the incremental losses in the BAA and charge the EIM Entity Scheduling Coordinator (EESC) the cost of the dispatched energy, including EIM transfers, through the Real Time Imbalance Energy Offset (RTIEO) charge code.
- The EESC must then suballocate RTIEO to customers.

Suballocation of RTIEO

- Since the June staff recommendation of charging for losses on EIM transfers, the Settlement team has put forth a recommendation on suballocation of RTIEO
- BPA proposes to suballocate RTIEO to its customers by Measured Demand by Magnitude*
- Measured Demand by Magnitude is defined as Metered Demand + Export Schedules.
- Export Schedules in the context of Measured Demand has not yet been defined by the BPA Settlement team.
- *Assuming* Export Schedules are defined to include the export leg of wheels, which would capture EIM transfers that “pass-through” BPA’s BAA, both customers with load, exports, and wheeling customers would be allocated a share of RTIEO.

*To be presented by Charge Code Cost Allocation team the afternoon of 8/25

Alternatives for Charging for Losses

- **Alternative 1: Do Not Charge Losses on EIM Transfers**
 - Customers with load, exports and wheeling customers would be allocated a share of RTIEO, assuming Export Schedules are defined to include wheels.
 - Creates an incentive to donate transmission for EIM
 - Avoids the potential for double-recovery of losses

- **Alternative 2: Charge Losses on All EIM Transfers**
 - Creates the potential for double-recovery of losses
 - Creates a disincentive for customers to donate transmission for EIM since that customer will have to pay losses on the transmission it donated if used but may not necessarily benefit from that EIM transfer

Staff Recommendation

- *Assuming Measured Demand includes exports associated with wheels, BPA recommends Alternative 1, do not charge losses on EIM transfers.*
- This settlement approach ensures that the cost of losses is recovered from all customers, not just customers with load in the BAA.
- If the Settlement Team determines that Measured Demand will not include exports associated with wheels, BPA will reevaluate the recommendation on losses on EIM transfers.

Proposed Tariff Language

- 15.7 Real Power Losses:
 - Real Power Losses are associated with all transmission service. The Transmission Provider is not obligated to provide Real Power Losses. The Transmission Customer is responsible for replacing losses associated with all transmission service, **excluding EIM participation**, as calculated by the Transmission Provider under Schedule 11.

- 28.5 Real Power Losses:
 - Real Power Losses are associated with all transmission service. The Transmission Provider is not obligated to provide Real Power Losses. The Network Customer is responsible for replacing losses associated with all transmission service, **excluding EIM participation**, as calculated by the Transmission Provider. The applicable loss factors are listed under Schedule 11.

ISSUE #6: DONATION TIMING FOR TRANSMISSION ETSR

Step 5: Discuss Customer Feedback

Step 6: Staff Proposal

Review of Issues

Review of Transmission Donations for ETSRs

- EIM dispatches are reliant on donated transmission to facilitate the movement of energy between EIM BAAs.
- BPA needs the Interchange Rights Holders to make their transmission donations in time to be included in the Resource Sufficiency Test at T-75.
- BPA is setting its requirement for when transmission donations for ETSRs are due.

Baseline: Terms of EIM Entity Tariff

The EIM Entity shall facilitate the provision of transmission capacity for EIM Transfers offered by an Interchange Rights Holder by providing the MO with information about the amounts made available by the Interchange Rights Holder for EIM Transfers. The provision of EIM Transfer capacity shall be implemented through the Interchange Rights Holder's submission of an e-Tag by 75 minutes prior to the Operating Hour ("T-75").

The EIM Entity shall facilitate the provision of transmission capacity for EIM Transfers by providing the MO with information about the amounts available for EIM Transfers utilizing Available Transfer Capability ("ATC"). The provision of EIM Transfer capacity corresponding to ATC shall be implemented by 40 minutes prior to the Operating Hour ("T-40") by the EIM Entity.

Baseline: Transmission Donations for ETSRs

- BPA will follow the policy laid out in the implementation agreement to only allow Interchange Rights Holder Donation. BPA stated in the September 2019 ROD that BPA would not use the ATC donation method.

Areas and Risks to Be Analyzed

Transmission Donation for ETSRs:

Establish a donation time line that:

- Is Pro Forma Tariff and/or Industry Standards or Industry Best Practices
 - Does not create seams issues between BPA's Interchange Rights Holder donations and other EIM Entities transmission donations
- Does not negatively impact Interchange Rights Holder use of transmission in other markets, and
- Allows for the donated transmission to be included in the T-75 Resource Sufficiency test

Review of Step 4: Alternatives

Alternatives

BPA is evaluating the following alternatives for Timing for Transmission Donations for ETSRs

- Alternative #1: Require Interchange Rights Holders to tag their donations by T-75
 - This Alternative is consistent with what other EIM Entities have adopted
- Alternative #2: Require Interchange Rights Holders to tag their donations by T-75 and allow adjustments to tags till T-40
 - Other EIM entities require Interchange Rights Holders to tag their donations by T-75 and ATC (TSP) donations by T-40.
 - BPA will follow the policy laid out in the implementation agreement to only allow Interchange Rights Holder Donation.
- Alternative #3: BPA will collect all approved Donated TSRs on all EIM transfer paths at T-77 (slight modification to Alt 3)
 - Interchange Rights Holders will need to submit TSRs for their donations in time for them to be approved by T-77.
 - BPA needs to collect the TSRs at T-77 in order to author e-Tags in time for the T-75 RS test.

Step 5: Customer Feedback to Alternatives and BPA Responses

Customer Feedback on Alternatives

| Topic | Comment Summary | BPA Response |
|-----------------------------|--|---|
| <p>T-77 Deadline</p> | <p>Most of the customer comments BPA received expressed support for BPA using the T-77 timeline.</p> <p>There were some comments expressing concern that the T-77 deadline for transmission donation is not feasible for all market participants.</p> <p>There was some concern that BPA may “automatically donate” any unutilized transmission capacity not tagged by T-75.</p> | <p>Other EIM Entities require donations by T-75. The donations are reported to CAISO on the same timeline and in the same fashion so it will not create seams issues between BAs.</p> <p>Note: Resources don’t need to be tied to a specific donation nor do They need to donate transmission in order to get dispatches from the market</p> <p>As noted, BPA will follow the policy laid out in the implementation agreement to only allow Interchange Rights Holder Donation. BPA stated in the September 2019 ROD that BPA would not use the ATC donation method</p> |

Step 6: Staff Proposal for TRANSMISSION DONATIONS FOR ETSRS

Evaluation of Alternatives – ETSR Transmission

| Decision Criteria | Alternative 1: Status Quo, Interchange Rights Holder donation by T-75 | Alternative 2: Interchange Rights Holders to donate by T-75, but allow customers to adjust the donation amount (up or down) until T-40 | Alternative 3: Interchange Rights Holders to donate TSRs in time for them to be approved by T-77 |
|---|---|---|--|
| <p>Is consistent with Pro Forma Tariff and/or Industry Standards, or Industry Best Practices</p> <ul style="list-style-type: none"> • There needs to be a compelling reason to deviate. | <p>Consistent with what other EIM Entities require for Interchange Rights Holder Donation</p> | <p>Is not consistent with what other EIM Entities require for Interchange Rights Holder Donation.</p> | <p>It is a deviation from what other EIM entities require for Interchange Rights Holder Donation.</p> |
| <p>Does not create seams issues between BPA’s Interchange Rights Holder donations and other EIM Entities’ transmission donations</p> | <p>Would not create a seams issue between BPA and the other EIM Entities</p> | <p>May create seams issues between BPA and the other EIM Entities.</p> <ul style="list-style-type: none"> • The other EIM entities require that transmission donated by Interchange Rights Holders be tagged by T-75 | <p>Should not create a seams issue between BPA and the other EIM Entities.</p> <ul style="list-style-type: none"> • The other EIM Entities require that transmission donated by Interchange Rights Holders be tagged by T-75, however, they would accept a tag earlier (T-77) |

Evaluation of Alternatives – ETSR Transmission

| Decision Criteria | Alternative 1: Status Quo, Interchange Rights Holder donation by T-75 | Alternative 2: Interchange Rights Holders to donate by T-75, but allow customers to adjust the donation amount (up or down) until T-40 | Alternative 3: Interchange Rights Holders to donate TSRs in time for them to be approved by T-77 |
|---|--|--|---|
| Promote efficient EIM market | <p>Some risk: Could result in less transmission being donated for EIM use.</p> <ul style="list-style-type: none"> Some parties may hold on to their rights in case they need to make a change up to T-57 <p>Neighboring EIM Entities may decline e-Tags if there are a number of dynamic tags from multiple customers</p> | <p>May result in more transmission being made available to the market.</p> <ul style="list-style-type: none"> BPA and the other EIM entities require base schedules to be submitted and become financially binding at T-57. This alternative would allow customers to donate additional unused transmission after submitting base schedules | <p>Some risk: Could result in less transmission being donated for EIM use.</p> <ul style="list-style-type: none"> Some parties may hold on to their rights in case they need to make a change up to T-57 <p>Consistent with neighboring EIM Entities asking for one dynamic tag per path</p> |
| Does not negatively impact Interchange Rights Holder use of transmission in other markets, | <p>By T-75 most of the marketing is done, so the status quo should not negatively impact Interchange Rights Holders' use of their transmission in other markets.</p> | <p>Parties could make changes up to T-40, allowing them to use their transmission in other markets.</p> <ul style="list-style-type: none"> Note by T-75 most of the marketing is done | <ul style="list-style-type: none"> The few minutes earlier than T-77 should not impact marketing, so it should not negatively impact Interchange Rights Holders' use of their transmission in other markets |

Evaluation of Alternatives – ETSR Transmission

| Decision Criteria | Alternative 1: Status Quo, Interchange Rights Holder donation by T-75 | Alternative 2: Interchange Rights Holders to donate by T-75, but allow customers to adjust the donation amount (up or down) until T-40 | Alternative 3: Interchange Rights Holders to donate TSRs in time for them to be approved by T-77 |
|---|---|---|--|
| <p>Allows for the donated transmission to be included in the Resource Sufficiency test</p> | <p>Some timing risk for Resource Sufficiency test;</p> <ul style="list-style-type: none"> • A donation right at T-75 may be too late to be included in the RS test • Help reduces the variables that are changing as the BA makes changes needed for the BAA. | <p>Risk: Creates uncertainty for the BAA as the BAA works to pass the RS tests and establish base schedules by T-40,</p> <ul style="list-style-type: none"> • Parties may hold on to their transmission until later in the timeline, potentially impacting the pass rate on Resource Sufficiency tests. • It may increase the variables that are changing as the BAA makes changes needed for the BAA <ul style="list-style-type: none"> • If donated transmission is increased, or if donated transmission decreases up to T-40. | <p>Consistent with the schedule for the Resource Sufficiency test.</p> <ul style="list-style-type: none"> • The donated transmission could be included in the Resource Sufficiency test allowing for the inclusion of any potential diversity benefit. • Reduces the variables that are changing as the BA makes changes needed for the BAA. |

BPA Staff Recommendation

The Team recommends Alternative 3: BPA collect all approved Donated TSRs on all EIM transfer paths at T-77

- The main drivers for the recommendation are:
 - Allows time for donated transmission to be included in the RS tests and in setting Base Schedules, and
 - Interaction with neighboring BAs. BPA has time to “sum up” the TSRs and author an e-Tag between BPA and the adjacent EIM entity

Possible Tariff Language for Alt 3

5.2 Provision of EIM Transfer Capacity by a BPA Interchange Rights Holder

The BPA EIM Entity shall facilitate the provision of transmission capacity for EIM Transfers offered by a BPA Interchange Rights Holder by providing the MO with information about the amounts made available by the BPA Interchange Rights Holder for EIM Transfers. The provision of EIM Transfer capacity shall be implemented through the BPA Interchange Rights Holder's submission of ~~an e-Tag a~~ **Transmission Service Request on an EIM transfer path. At by 775** minutes prior to the Operating Hour ("T-775") **the BPA EIM Entity shall retrieve all approved Transmission Service Requests on all EIM transfer paths that source or sink in the BPA EIM Entity BAA.**

Possible Tariff Language for Alt 3 (continued)

By T-75 the BPA ~~Interchange Rights Holder~~ EIM Entity shall submit or update an e-Tag for each EIM transfer path for which a BPA Interchange Rights Holder has donated transmission and communicate the effective transfer limits to the EIM. ~~include on tThe e-Tag will include the OASIS identification reservation number(s) associated with the transmission rights made available for EIM Transfers and shall also include the Market Operator, all transmission providers, and path operators associated with the OASIS identification reservation number(s) identified on the e-Tag.~~ The BPA Interchange Rights Holder's rights associated with the submitted e-Tag shall be available for the EIM, subject to approval of the e-Tag by all required e-Tag approval entities. The amount of transmission made available for EIM Transfers shall never exceed ~~the~~ that which is donated by BPA Interchange Rights Holders ~~transmission rights.~~

ISSUE #12: GENERATOR INTERCONNECTION

Step 5: Discuss Customer Feedback

Step 6: Staff Proposal

Step 5: Customer Feedback and BPA's Response

- Bonneville received comments from NIPPC suggesting that Bonneville make several revisions to its Tariff with regard to force majeure events.
- Bonneville appreciates NIPPC's comments. However, force majeure events are handled on a case-by-case basis, depending on facts.

Step 6: BPA Staff Proposal

(Please see redlines for all tariff revisions)

- BPA conducted an analysis of four proposed alternatives for new repower (replacement of select components of a large generating facility) and replacement (replacement of an entire large generating facility that is nearing the end of its useful life) provisions for the LGIP.
 - Alt #1: Status Quo: (Status Quo) No revisions to Tariff Attachment L for Repowers and Replacements;
 - Alt #2: Repower: Revise Tariff Attachment L to add Repower procedures;
 - Alt #3: Replacement: Revise Tariff Attachment L to add Replacement procedures and
 - Alt #4: Repower & Replacements: Revise Tariff Attachment L to add Repower and
 - Replacement procedures.

- **BPA Staff Proposal: Alternative #4**

Proposed Alternative #4 – Repower Process

(Please see redlines for all tariff revisions)

- Generating Facility Repower (replacement of the components of a Large Generating Facility Identified in an executed GIA).
 - NOTE: Streamlined Repower Process does not include general maintenance--e.g., replacement of in-kind components, or an increase in Name Plate and Interconnection Service, no new Point of Interconnection;
 - No need to submit an IR;
 - IC notifies Transmission Provider (TP) of the Repower;
 - Scoping meeting is held to discuss the Repower;
 - IC must demonstrate that repower will not degrade the Transmission System;
 - TP will determine whether the Repower is a potential Material Modification;
 - If the Repower is a potential Material Modification then an Interconnection Request is required.
 - Once the Interconnection Request is received the IC may bypass the Feasibility Study and Impact Study (if mutually agreed to by the IC and TP).
 - If not Material Modification TP will require the Repowered Generating Facility meet all of TP’s current operational and technical standards;
 - IC will move to Facilities Studies (including any additional environmental studies as needed e.g., NEPA).
 - Existing GIA is amended to reflect the new Repowered Generating Facility;
 - NOTE: Some Repower requests are per se Material Modifications and would require a new Interconnection Request. This will be discussed in Business Practices---examples: Increasing both Name Plate and the Interconnection Service.

Proposed Alternative #4 – Replacement Process

- Large Generating Facility Replacement (Any Replacement Generating Facility must connect to the Transmission System at the same electrical Point of Interconnection [i.e. same voltage level at the interconnecting substation] as the Existing Generating Facility). No increase in Name Plate and Interconnection Service, no new Point of Interconnection.
 - IC submits an IR consistent with the terms of the LGIP/SGIP and pays deposit and enters the Interconnection Queue;
 - The request for Generating Facility Replacement must be submitted to TP by IC for its Existing Generating Facility at least one (1) year prior to the date that the Existing Generating Facility will cease operation;
 - The IC shall request only ER Interconnection Service for the Replacement Generating Facility if the Existing Generating Facility has only ER Interconnection Service;
 - The Interconnection Customer may request either ER Interconnection Service or NR Interconnection Service for the Replacement Generating Facility if the Existing Generating Facility has NR Interconnection Service;
 - TP will conduct the following studies: Replacement Impact Study, may also conduct a Reliability Assessment Study, Interconnection Facilities Study, and additional environmental studies as needed (e.g., NEPA).
 - Existing GIA is amended to reflect the Generating Facility Replacement (See MISO Tariff Language as an example).

TC-22 Key Revisions to Attachments L

(Please see redlines for all revisions)

- FERC Order 845, 845-A–New procedures:
 - Reform #3: Identification of Contingent Facilities;
 - Reform #9: Utilization of Surplus Interconnection Service; and
 - Reform #10: Material Modification and Incorporation of Advanced Technologies.
- New Repower and Replacements Procedures
- New language regarding EIM Requirements
- Revisions to align with Bonneville’s current processes, (e.g., updated Notices language/Removed outdated WECC Language, added electronic signature option)
- Revisions to align with *pro forma* to the extent possible
- General Ministerial Edits

TC-22 Key Revisions to Attachments N

(Please see redlines for all revisions)

- New language regarding EIM Requirements
- Revisions to align with Bonneville's current processes (e.g., updated Notices language /Removed outdated WECC Language, added electronic signature option)
- Revisions to align with *pro forma* to the extent possible
- General Ministerial Edits

ISSUE #3: RESOURCE SUFFICIENCY

Step 6: Staff Proposal

Issue 3: Options for Balancing the BAA?

Customer Feedback

- Customers supported not setting an RS pass target
- Customers supported not sub-allocating the CAISO's area load forecast
- Customers expressed in interest in better understanding the operational and cost impacts of the various balancing options
- Customers asked how the balancing options connect to gen inputs

Issue 3: Options for Balancing

1. BPA balances to CAISO's BAA load forecast
2. BPA balances to BPA's BAA load forecast
3. BPA balances to a load forecast based on the sum of BAA schedules
4. For each hour, BPA will make a decision on whether to balance to a BAA load forecast or a load forecast based on the sum of BAA schedules

Balancing Test Go-Live Unknowns

- What is the cost of balancing to CAISO's BAA load forecast?
- What are the additional benefits of balancing to CAISO's BAA load forecast?
- What is the magnitude and distribution of the gap in the Balancing Test?
- How accurately are sub-BAA entities scheduling to their actual loads once in EIM (new scheduling timeline)?
- Because of these unknowns, it's important that BPA maintain flexibility in how it approaches the Balancing Test

Issue 3: Recommendation

- For each hour, BPA will make a decision on whether to balance to a BAA load forecast or a load forecast based on the sum of BAA schedules
 - Provides BPA with greater flexibility to managing the Balancing Test by not placing an obligation on BPA
 - Avoids undue burden on BPA or the FCRPS
 - Allows for EIM price signals to incentivize appropriate scheduling behavior by all members in the BAA

- Options for managing the balancing test will be reevaluated in the future as we have more information from the planned post EIM-Go Live Sub BAA RS assessment

Proposed Tariff Language

- BPA proposes to adopt the tariff language in the Arizona Public Service OATT that would allow the BPA EIM Entity flexibility to balance to either the CAISO forecast or provide its own load forecast

- Proposed tariff language
 - 4.1.1.3 Determination of EIM Implementation Decisions for BPA's BAA
 - (3) Load Forecast: The BPA EIM Entity shall be permitted to use the MO load forecast, but shall retain the right to provide the load forecast to the MO in accordance with the MO Tariff.

ISSUE #9: TRANSMISSION LOSSES:

- Loss Factor
- Pricing
- Cost Recovery (Billing Determinants and Rate Design)

Step 5: Discuss Customer Feedback

Step 6: Staff Proposal

Overview

- The topic of losses is complex, mainly because we have been discussing changes to many different interrelated components of losses.
- Today's presentation, which is BPA Staffs' proposal for the BP-22 Rate Period, will attempt to separate the issues and show how they fit together in a complete picture.

Issues Addressed Today

- **Issue 1:** Should BPA allow customers to choose to supply in-kind losses in BP-22?
- **Issue 2:** Should BPA update its network loss factor?
- **Issue 3:** Should BPA adopt a seasonal and/or diurnal loss factor?
- **Issue 4:** How should BPA calculate the cost of providing loss services and how will that cost be allocated to customers that use those services?
- **Issue 5:** Should BPA adopt a Financial for Inaccuracy (FFI) rate to encourage customers to meet their loss obligations?
- **Issue 6:** Should BPA move to concurrent losses and if so, how quickly could such a move be made?

Issue 1: Should BPA allow customers to choose to supply in-kind losses in BP-22?

- Customer have expressed unanimous concern about removing the option to provide in-kind loss returns.
- Concerns generally fall into two buckets:
 - Concern about the cost BPA may charge for losses and a preference to allow customers the choice to mitigate that uncertain cost with in-kind loss returns.
 - Concern about adding a new Federal loss obligation without understanding how this new obligation would or would not impact other power products.
- In response, BPA Staff agrees that BPA should maintain the option to provide in-kind loss returns for the BP-22 rate period.

Issue 2: Should BPA update its network loss factor?

- It has been nearly 20 years since BPA last updated its system loss factor.
- We received general support that BPA should update its loss factor to reflect the changes on the system.
- All other loss factors will remain unchanged.
- Yes, BPA will propose an update to the network loss factor (see issue 3 for specifics)

Issue 3: Should BPA adopt a seasonal and/or diurnal loss factor?

- Customer feedback on this has been mixed, but the majority of feedback received supports some sort of seasonal shape so that loss returns better reflect actual losses.
- Of the customers that supported a shaped loss factor, a summer and non-summer shape was suggested as a reasonable balance between complexity and practicality.
- We agree with the goal of having loss returns more closely reflect the actual losses of the system. We also acknowledge the diminishing returns that likely result as granularity gets finer and finer.
- BPA staff plan to propose a monthly average network loss factor.

Issue 3: Proposed change to Schedule 11 Tariff language

- The applicable Real Power Loss factors are as follows:
 - a) for use of the Network Segment, the Loss Factors will be set on a monthly basis as noted in the table below;

| MONTHLY AVERAGE LOSS FACTORS | |
|--|-------|
| January (based on 24402 MW average hour) = | 2.05% |
| February (based on 24109 MW average hour) = | 2.03% |
| March (based on 22688 MW average hour) = | 1.93% |
| April (based on 21792 MW average hour) = | 1.98% |
| May (based on 21590 MW average hour) = | 1.97% |
| June (based on 22847 MW average hour) = | 2.32% |
| July (based on 23183 MW average hour) = | 2.34% |
| August (based on 21866 MW average hour) = | 2.26% |
| September (based on 20282 MW average hour) = | 1.92% |
| October (based on 18547 MW average hour) = | 1.84% |
| November (based on 20919 MW average hour) = | 1.83% |
| December (based on 22690 MW average hour) = | 1.93% |

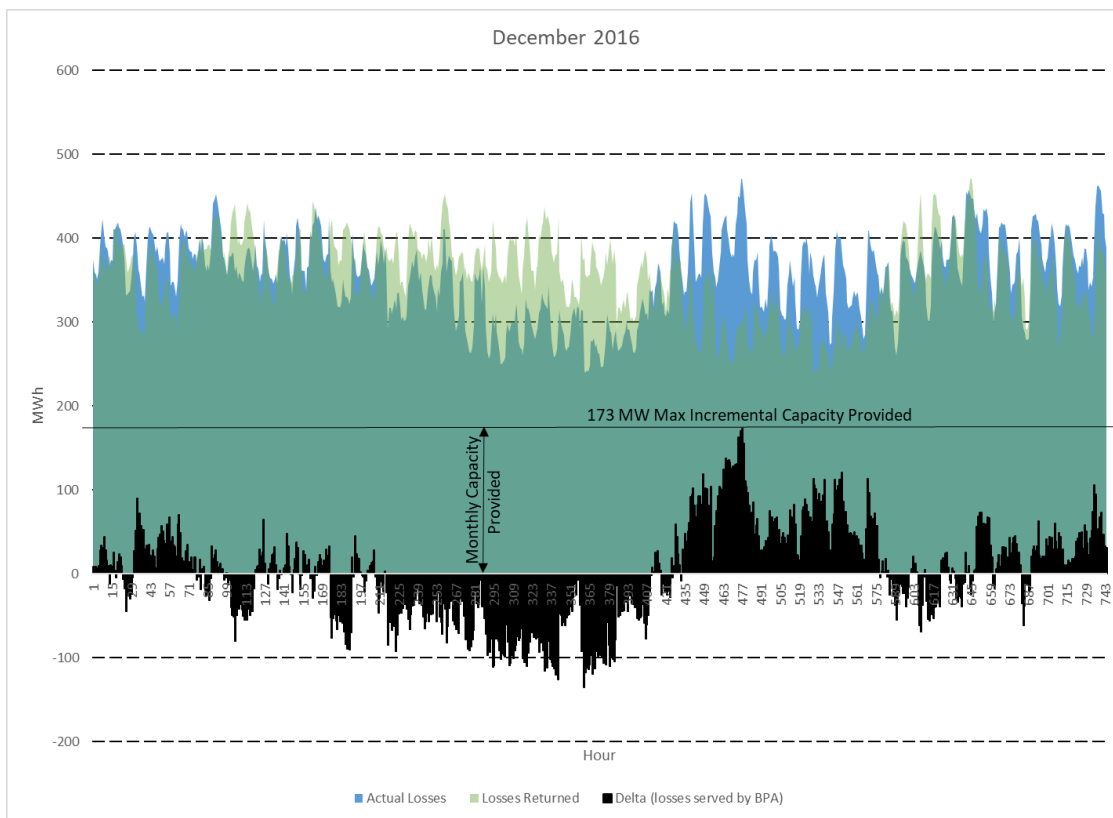
Note: monthly factors calculate to an annual average of 2.03%

Issue 4: How should BPA calculate the cost of providing loss services and how will that cost be allocated?

- BPA plans to price three loss services with the idea that the second service (B-Concurrent Losses) would go away if BPA adopts a shaped loss factor.
 - A. Loss service for in-kind 168-hour delay of loss returns
 1. Similar to Generation Inputs charged to Transmission Services. Transmission Services recovers through transmission rate.
 2. Applicable to all customers electing 168 hour in-kind returns.
 - B. Loss service for in-kind concurrent loss returns
 1. Similar to Generation Inputs charged to Transmission Services. Transmission Services recovers through transmission rate.
 2. Applicable to all customers electing concurrent in-kind returns.
 - C. Loss service for financial losses
 1. Posted in Power Services FPS Rate Schedule.
 2. Real Losses BP to reference updated FPS rate schedule.
 3. Applicable to all customers electing to purchase financial losses from Power Services.

Issue 4: Loss Service A (In-kind 168 Hours)

- Loss service for in-kind 168-hour delay of loss returns.
 - Calculate the monthly capacity provided using the historical difference between 168-hour delay of losses and the actual loss obligation.

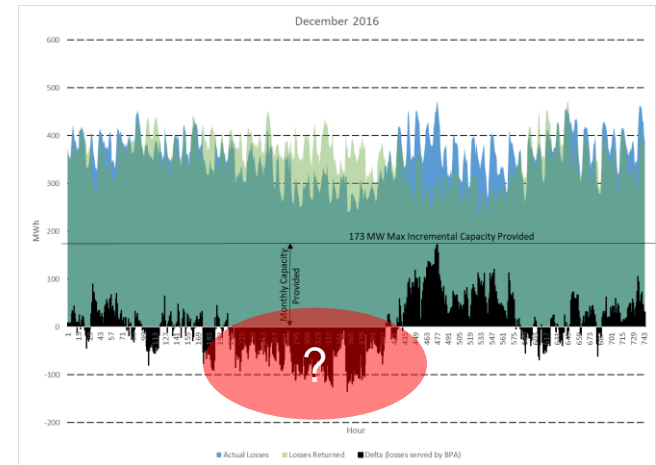


Issue 4: Loss Service A (In-kind 168 Hours)

- Cost of capacity is set equal to our embedded cost of capacity (as calculated using the same methodology used to set contingency and balancing reserve services).
- The embedded cost of capacity is expected to be about \$5.82/kW/mo (see slide 130 of June 23rd 2020 workshop presentation)
- The total cost of providing this service using FY 2019 historical information is \$9,707,760.
- We would then propose to turn this into a \$/MWh service fee by taking the total annual cost and dividing it by the amount of MWhs of losses in the same historical data set. This produces a rate of \$3.53/MWh that BPA would charge to any in-kind loss returns (both network and intertie) that are 168-hours delayed (this include Slice loss returns).

Customer Feedback

Should customers receive a credit for times they provide more energy?

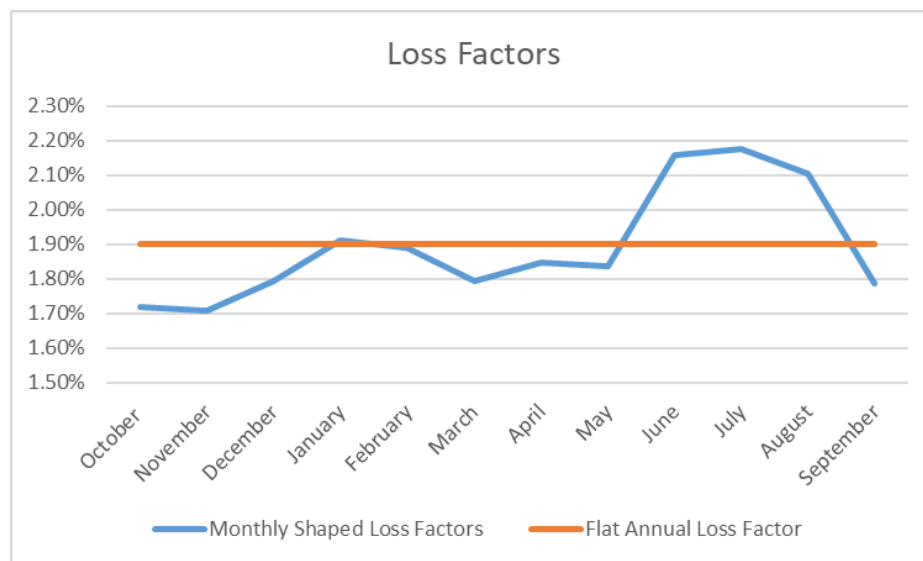


BPA Staff Response:

- **From the perspective of energy, no.** That energy must be stored so that it can be released in the times when not enough energy is provided. For simplicity purposes, we assumed all energy had equal value (meaning it could either be stored for free or could be sold and repurchased for the same price a week later). It's possible, and actually quite likely, that an evaluation of the value difference in energy would result in an added charge rather than a credit given we expect higher energy prices to be correlated to times when electricity demand, and thereby losses, is also high.
- **From the perspective of capacity, no.** None of the attributes of capacity exist in random energy over generation. It can neither be planned on or called on. Even though the amount of energy provided back to BPA is known 168-hours in advance, BPA would not know whether the amount provided is larger or smaller than the actual loss obligation a week later. In other words, only one of two variables would be known a week in advance. Further, the likelihood that excess generation would arrive during times of greatest need are unlikely given it's effectively providing BPA cold-snap or heat-wave energy a week after the capacity was needed.

Issue 4: Loss Service B (Concurrent)

- Loss service for in-kind concurrent loss returns (applicable only if BPA has a single flat annual loss factor)
 1. Calculate the monthly capacity provided using the historical difference between a flat average loss factor and the actual loss obligation using a shaped loss factor.
 2. No cost will be assessed for months where the shaped loss factor is less than the annual loss factor.

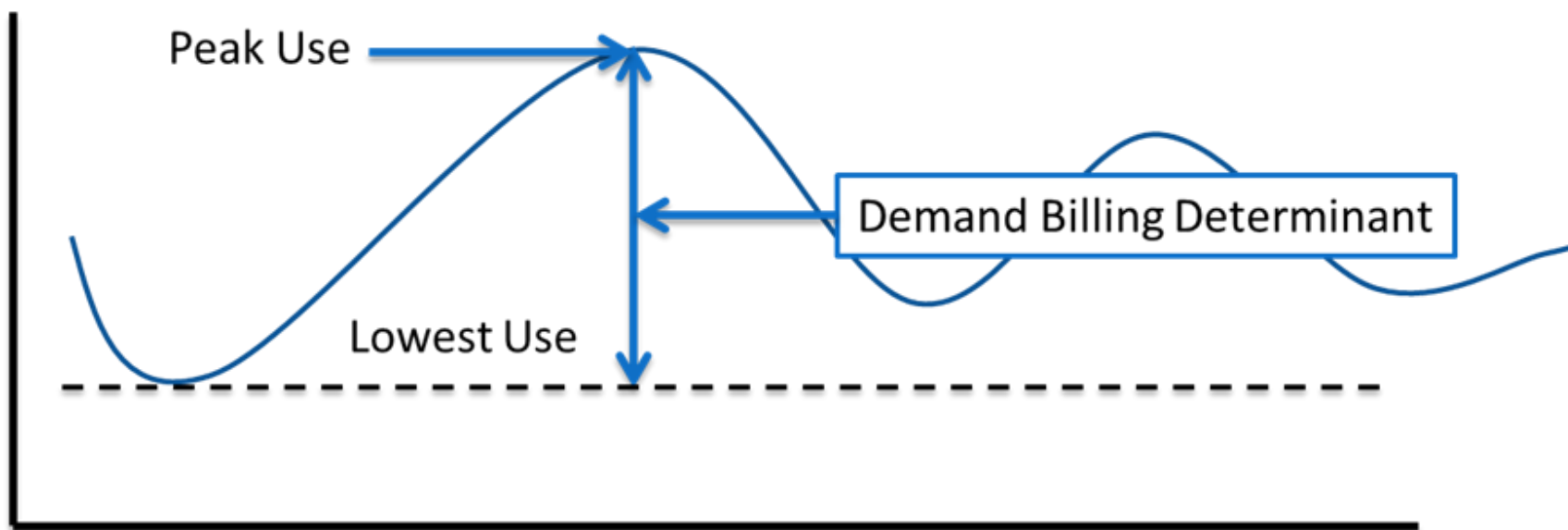


Issue 4: Loss Service B (Concurrent)

- Same as Loss Service A, cost of capacity is set equal to our embedded cost of capacity (as calculated using the same methodology used to set contingency and balancing reserve services).
- The embedded cost of capacity is expected to be about \$5.82/kW/mo (see slide 130 of June 23rd 2020 workshop presentation)
- The total cost of providing this service using FY 2019 historical information is \$596,505.
- We would then propose to turn this into a \$/MWh service fee by taking the total annual cost and dividing it by the amount of MWhs of losses in the same historical data set. This produces a rate of \$0.22/MWh that BPA would charge to any in-kind loss returned concurrently (both network and intertie) using a flat annual loss factor (this include Slice loss returns).

Issue 4: Loss Service C (Financial)

- Loss service for financial losses.
- Capacity calculated as the difference between the peak usage less the minimum energy taken during the same month.
- Includes spot to forward adder of \$1/MWh for minimum energy amounts.



Issue 4: Loss Service C (Financial)

- Same as Loss Service A and B, cost of capacity is set equal to our embedded cost of capacity (as calculated using the same methodology used to set contingency and balancing reserve services).
- The embedded cost of capacity is expected to be about \$5.82/kW/mo (see June 23rd 2020 workshop presentation)
- The total cost (not including the energy value) of providing this service using FY 2019 historical information is \$18,271,253.
- We would then propose to turn this into a \$/MWh service fee by taking the total annual cost and dividing it by the amount of MWhs of losses in the same historical data set. This produces a rate of \$6.65/MWh that BPA would charge as a service adder to the amount of energy losses provided by BPA.
- The energy provided would be charged the hourly index price as determined by PowerDex (or a similar replacement) when not in EIM and EIM LAP if in EIM in the hour losses were provided by BPA.

Issue 4: Context to capacity prices

- Loss service A: BPA has bought or sold storage products (delay in delivery of 168 hours days, no reshaping energy amounts) in the range of \$3 to \$6 per MWh, in nominal prices
- Loss service C: the matrix below shows the effective \$/MWh rates for a range of capacity prices assuming a load factor of 100% (a flat block) and a load factor of 75% (more like utility load and losses)

| Capacity Price \$/kW-mo | \$4 | \$6 | \$8 |
|---|--------|---------|---------|
| Effective Rate w/ 100% Load Factor \$/MWh | \$5.48 | \$8.22 | \$10.96 |
| Effective Rate w/ 75% Load Factor \$/MWh | \$7.31 | \$10.96 | \$14.61 |

Issue 4: Loss Return Rate Design - Rate Options In-Kind Returns

- BPA will allocate the capacity cost of In-Kind loss return service under the Transmission rate schedule:
 - This is similar to other Generation Input Services, where Power provides services and Transmission must recover the costs.
- BPA is proposing a formula rate in the Transmission rate schedule to recover the cost of in-kind capacity services:
 - BPA considered other rate design alternatives, however it makes the most sense to directly pass through the capacity pricing established by Power Services for loss return service.
- This rate will only apply to customers that opt to provide their loss return obligation In-Kind

Issue 4: Loss Return - Rates Implementation

- The billing determinant for loss return service would be based on the customer's Transmission usage:
 1. Point-to-Point and Intertie Transmission: Based on Transmission Schedules
 2. Network Integration: Hourly metered load
- The following are the proposed formula rates In-Kind loss return capacity to be included in the Transmission Rate Schedule:
 1. PTP and Intertie: $((\text{Sum of Hourly Schedules for the Month (MWh)} \times 1000) \times \text{applicable loss factor}) \times 3.53 \text{ mills per kwh} = \$ \text{ charge.}$
 2. NT: $(\text{Sum of Hourly Metered Load for the Month (kWh)} \times \text{applicable loss factor}) \times 3.53 \text{ mills per kwh} = \$ \text{ charge.}$

Issue 5: Should BPA adopt a Financial for Inaccuracy (FFI) rate?

- BPA received general support for the adoption of a FFI rate so that customers are encouraged to meet their loss return obligation.
- BPA staff plans to propose an FFI rate in the Transmission Rate schedules and will include implementation details in the Real Power Losses Business Practice.

Issue 5: FFI Rate (cont.)

- FFI rate applies to those customers that default on their In-Kind loss obligation by either missing or providing inaccurate or delayed loss returns.
 - A default may include any MW inaccuracy that deviates from the expected customer loss obligation (e.g. scheduling zero during an hour that contains a loss return obligation).
- FFI is not meant to be used for force majeure events, outages or schedules that are cut for reliability reasons.
- BPA will notify customers after a default of their loss return obligation and provide customers an opportunity to dispute the application of the FFI.
- BPA will offer tools available to customers to receive their loss return obligation and check the accuracy of their schedules. However, customers are responsible for training their staff and checking for accuracy.

Issue 5: FFI Details

- BPA Staff is considering following option:
 - Charge associated with each instance of inaccurate schedule.
 - Would be billed using the following formula
 - “cost for financial losses at the time of the default (see slide #84)” multiplied by “TBD factor”
 - Customers would not return in-kind losses for defaulted hours
 - Customers would continue to return in-kind losses for all other hours through the rate period except for defaulted hours

Issue 6: Should BPA move to concurrent in-kind losses and how quickly?

- BPA Staff and some customers agree that BPA should work towards having loss returns better match actual losses.
- One of the biggest impediments to this goal is maintaining the 168-hour delayed return of losses in addition to concurrent.
- However, there are implementation challenges for BPA centered on software/process changes in both the Transmission and Power business lines.

Issue 6: Future loss model options for BP-24

- One option would be for a customer to provide concurrent losses starting with the BP-24 rate period, BPA would simply stop charging those customers for Loss Service A (168 hour returns) if or when that occurred.
- Another option would be to use a fully financial model starting with the BP-24 rate period.
- Regardless, BPA intends to no longer offer 168-hour delayed return of losses starting in BP-24.

Next Steps

- Customer feedback with closeout of issue at the September workshop.
 - Provide feedback on all proposals by September 9, 2020 via techforum@bpa.gov (with a copy to your Transmission Account Executive).

ISSUE #1: TRANSMISSION RATES

- Charge Code Allocation

Charge Code Implementation



Process Framework

*Phases One and Two:
Approach and Evaluation*

*Step 1: Introduction & Education
Step 2: Description of the Issue
Step 3: Analyze the Issue
Step 4: Discuss Alternatives*

July Workshop

**Phase Three:
Proposal Development**

**Step 5: Customer Feedback
Step 6: Staff Proposal**

Today's Workshop

Customer Feedback Summary: BPA Cost Recovery Construct



Support of sub-allocating the BPA-defined set of codes, with continued review of unallocated codes

Support of full and accurate cost recovery

Seeking alignment with cost causation principles

Customer Feedback Summary: General EIM Construct



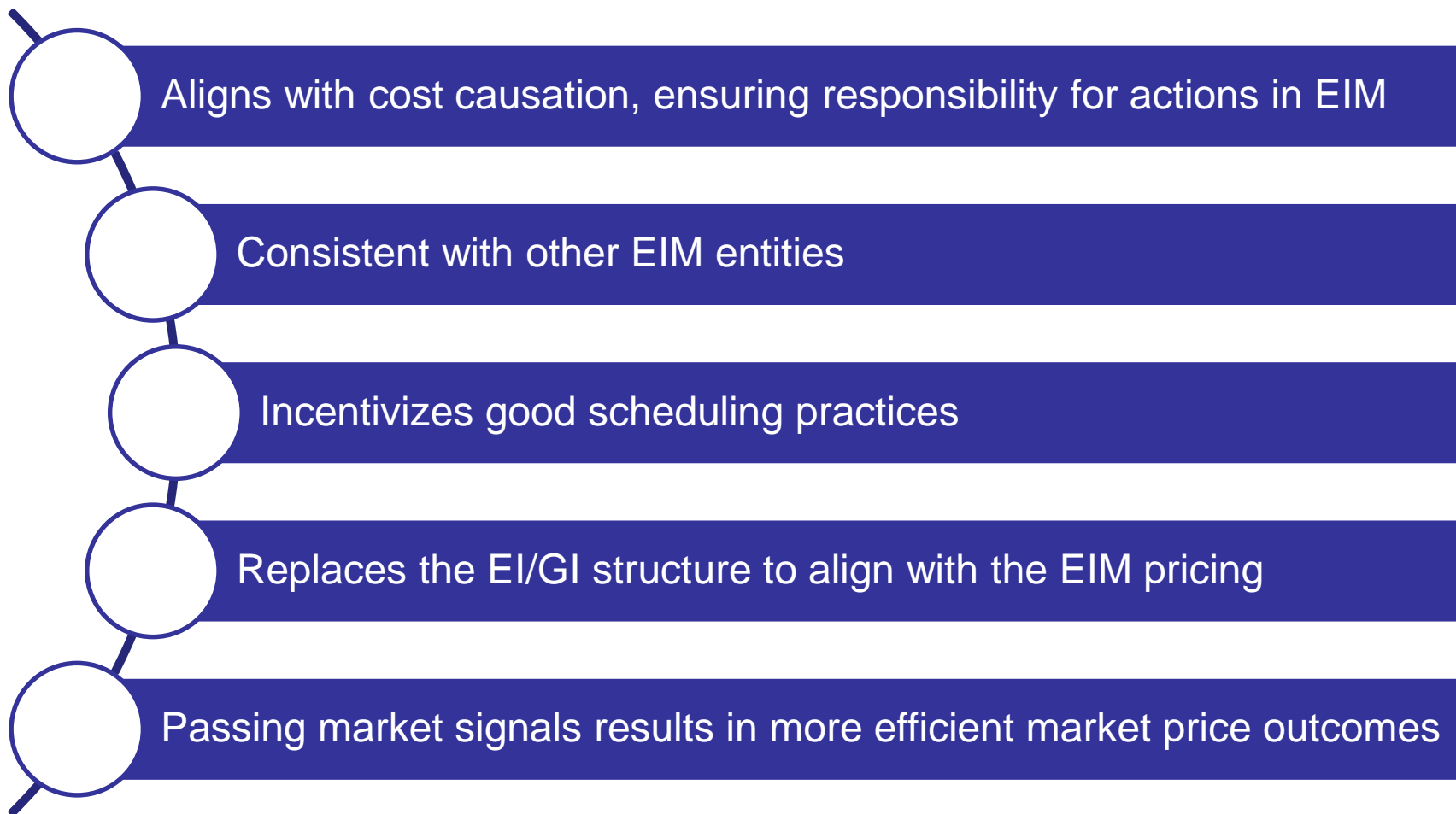
Market Change Concerns

- Moving from index pricing to LMPs
- Multiple changes to accommodate EIM occurring at once
- Uncertainty and potential volatility
- Data constraints, based on CAISO data availability

Transmission Rights within EIM

- Concern about imbalance charges for new schedules or schedule changes after T-57
- Concern as to whether related charges would exceed net EIM re-dispatch to accommodate the specific schedules
- Concern regarding non-firm schedules creating congestion costs

Customer Feedback Summary: Base Codes



Customer Feedback Summary: Neutrality Codes



Measured Demand by Magnitude

- Concern of mismatch between offsets and customers paying congestion
- Cost causation concern of sub-allocating bulk of costs to largest loads, which may not be the cause of costs incurred



Imbalance by Magnitude

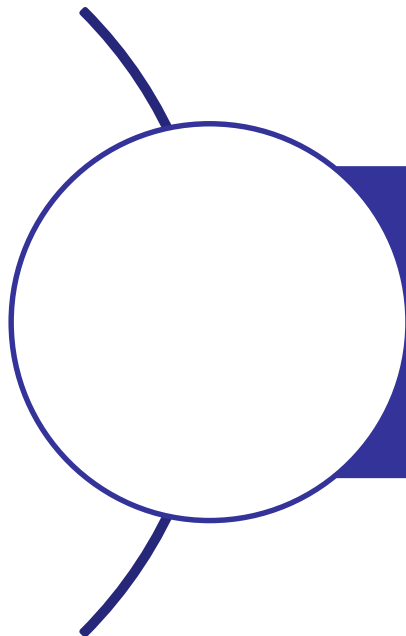
- Closer alignment between offsets and customers paying congestion
- May work for costs, but may incentivize imbalance for credits
- May be more consistent with cost causation



Additional Discussion

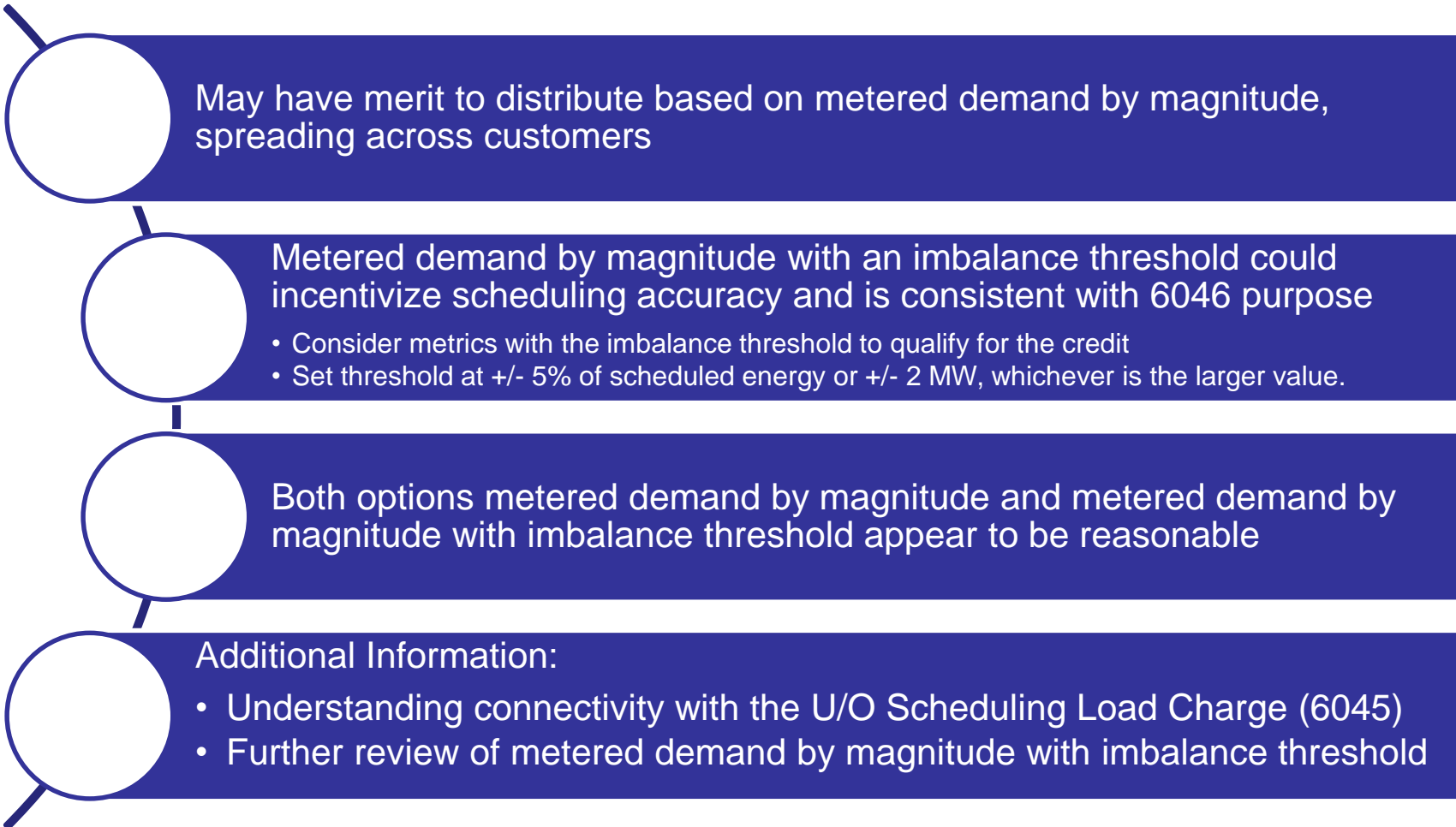
- Further information on connection with the base codes
- Review applicability to generators

Customer Feedback Summary: Under/Over Schedule Load Charge (6045)



Aligns the recovery of the penalty with the customers that cause the charge

Customer Feedback Summary: Under/Over Schedule Load Allocation (6046)



May have merit to distribute based on metered demand by magnitude, spreading across customers

Metered demand by magnitude with an imbalance threshold could incentivize scheduling accuracy and is consistent with 6046 purpose

- Consider metrics with the imbalance threshold to qualify for the credit
- Set threshold at +/- 5% of scheduled energy or +/- 2 MW, whichever is the larger value.

Both options metered demand by magnitude and metered demand by magnitude with imbalance threshold appear to be reasonable

Additional Information:

- Understanding connectivity with the U/O Scheduling Load Charge (6045)
- Further review of metered demand by magnitude with imbalance threshold

Customer Feedback Summary: Unallocated Codes



Support of Delaying Sub-Allocation

- Ensure that appropriate codes still tie together for BP-22
- Review for future phase-in

Forecasting Approach

- Support BPA exploring nominal forecast amounts and zero forecast amounts for codes, while assessing the risks for costs

Costs in Rates versus Measured Demand

- Further discussion on justification for forecasting costs versus allocating in measured demand

Customer Feedback Summary: Other Comments



Managing System within BPA's BAA

- Base codes and neutrality codes for entities that are currently subject to Energy Imbalance

Administrative

- Seeking additional information on the customer administrative side of EIM implementation

Interim Cost Recovery Considerations

- Suggested by one customer, request for cost recovery through EIM revenues during first six months, while retaining status quo pricing based on Mid-C Index

EIM Topics of Interest

OATT Rights

CAISO Neutrality Codes

Generation Applicability in EIM

Two Additional Charge Codes

OATT Rights

- Firm versus Non-Firm Transmission
 - If curtailment needs to occur, BPA curtailment would continue to be based on transmission priority
 - Consistent with today's framework:
 - Curtailments occur at approximately T-20 for external paths
 - Meaning that congestion is managed by BPA in advance of the EIM and would continue to be based on transmission priority
 - Curtailments can occur within hour for internal or external paths
 - Majority of the internal paths do not see curtailments occurring today
 - The EIM may re-dispatch within the hour, likely to occur prior to BPA's re-dispatch
 - EIM works to avoid curtailment by optimizing the market, but there is the financial settlement that occurs in the market
 - If there were a curtailment within the hour, curtailment would continue to be based on transmission priority

CAISO Neutrality Codes

■ CAISO Construct:

- 64740 (could be going away) difference between EIM BAA loss factor and CAISO calculated loss factor for EIM BAA
- 67740 captures the change in congestion costs for an EIM BAA between the model run prior to the EIM and any system changes for the EIM BAA in the EIM that impacts the congestion price.
- 64770 captures non-zero amounts from UIE, IIE, GHG, and UFE.
- 69850 calculated for each BAA, is the contribution of that BAAs transmission constraints to the LMP at each resource location in the EIM Area and imbalance at that resource location.
- 6478 settles any non-zero amounts from 64770.

■ Considerations in Sub-Allocation:

- No direct cost causation information available at customer level from CAISO data
- BPA is working to align with other EIM entities
- Neutrality codes are part of settlements with the base codes and need to maintain the financial links for settlements
 - By sub-allocating, working to align the offsets between base charges and neutrality codes

Generation Applicability in EIM

- Generation that is exporting creates an additional load obligation for the BAA, which is why other EIM entities include exporting generators in the measured demand assignment.
- For generators within an EIM entity's BAA, the concern is that there could be double counting.
 - When load and generation are included (i.e. in an imbalance by magnitude formula), there would be the potential for charging twice, which could be a generator serving its own load.

Two Additional Charge Codes

| Code Number | Description |
|-------------|--|
| 6194 | Spinning Reserve Obligation Settlement |
| 6294 | Non-Spinning Reserve Obligation Settlement |

- Originally, these operating reserve codes were not assumed to be applicable to BPA, but upon further review found that the codes will be applicable.
- Codes are applied when energy is moved into or out of California and impacts the CAISO operating reserves.
- The code settlements are expected to be small and are based on a volumetric charge and could be credits or charges.
- One entity has allocated these codes to load, while most other entities have effectively rolled in the codes (by allocating to PRSC).
- These codes are still under review as to the best approach for cost recovery.

SUB-ALLOCATED CODES

Base Codes

| Code Number | Description | FERC Allocation Method |
|-------------|---|------------------------|
| 64750 | Uninstructed Imbalance Energy (Schedule 4 and Schedule 9) | Direct Assignment |
| 64600 | FMM Instructed Imbalance Energy (Energy Imbalance) | Direct Assignment |
| 64700 | Real-Time Instructed Imbalance Energy (Energy Imbalance) | Direct Assignment |

STAFF PROPOSAL: Direct Assignment for All Base Codes

Rationale: Aligned with cost-causation, consistent with other entities/approved approach

Definition: Direct allocation of the charges and credits to customers based on customer behavior in the CAISO EIM. The charges and credits are based on granular customer level detail behind the CAISO settlements to the EESC.

Neutrality Codes

| Code Number | Description | FERC Allocation Method |
|-------------|---|------------------------|
| 64770 | Real Time Imbalance Energy Offset EIM | Measured Demand |
| 64740 | Real Time Unaccounted for EIM Energy Settlement | Measured Demand |
| 69850 | Real Time Marginal Losses Offset EIM | Measured Demand |
| 6478 | Real Time Imbalance Energy Offset | Measured Demand |
| 67740 | Real Time Congestion Offset EIM | Measured Demand |

STAFF PROPOSAL: Measured Demand by Magnitude for ALL Codes

Rationale: Consistent with other entities/approved approach, mirrors CAISO BAA allocation.

Definition: Takes each customer's load ratio share, measured as the customer's Measured Demand (Metered Demand + Export Schedules) divided by the Total BAA Measured Demand multiplied by the amount billed to the BAA under each neutrality charge code. The Metered Demand for each customer is their metered load, including losses.

Alternative Option Considered: Imbalance by Magnitude for ALL Codes

Rationale: Costs are allocated to customers with the largest imbalances, because they are the most active participants in the EIM market

Definition: Takes each customer's imbalance, regardless of direction, divided by the absolute value of the total customer imbalance multiplied by the amount billed to the BAA under each neutrality charge code. Those customers without any imbalance are not allocated any costs.

Neutrality Code Considerations

- Beginning BP-22 with Measured Demand by Magnitude
 - Common EIM Entity Practice
 - Seams risk reduction
 - Known ability to implement with new systems
 - General allocation removes ability to influence market outcomes

- Alternative Option Considered: Imbalance by Magnitude
 - Untested implementation with new systems
 - Could create unforeseen ability to game neutrality charges and credits
 - Does this approach still work when allocating credits?
 - Would need to alter design so that a customer with larger imbalance would not receive a larger portion of the credit
 - Misalignment in charge code allocation with BPA customers in other EIM BAA's
 - Uncertainty on how to apply neutrality to generation
 - Is it reasonable to include generation under this approach?
 - Should non-participating generation receive neutrality on both IIE and UIE?
 - Would participating generation also receive neutrality through UIE?
 - Potential seams risk
 - Could review in the BP-24 time period

Over/Under Scheduling Codes

| Code Number | Description | FERC Allocation Method |
|-------------|-------------------------------------|-----------------------------|
| 6045 | Under/Over Schedule Load Charge | Imbalance by Direction |
| 6046 | Under/Over Schedule Load Allocation | Metered Demand by Magnitude |

STAFF PROPOSAL (6045): Imbalance by Direction

Rationale: Allocates costs only to those that caused the penalty

Definition: Takes each customer's imbalance in the same direction as the BAA imbalance, divided the sum of the customer imbalances in the same direction as the BAA multiplied by the amount billed to the BAA under code 6045

STAFF PROPOSAL (6046): Metered Demand by Magnitude with Imbalance Threshold

Rationale: In addition to mirroring CAISO BAA Allocation, incentivizes individual customer scheduling accuracy in order to receive share of credit

Definition: Same as metered demand by magnitude, but only allocates to those customers with imbalance at or below a predetermined imbalance tolerance (within 5-percent / 2 MW of schedule)

Alternative Option Considered: Metered Demand by Magnitude

Rationale: Mirrors CAISO BAA Allocation, consistent with most other EIM entities, allows credits to be allocated based on the size of each customer's overall demand within the BAA.

Definition: Takes each customer's load ratio share, measured as the customer's Metered Demand (metered load, including losses) divided by the Total BAA Metered Demand multiplied by the amount credited to the BAA under code 6046

**Note that code 6046 is a credit to EIM entities on days in which they did not receive any penalty charges associated with code 6045, but other EIM entities did*

UNALLOCATED CODES

Rationale for Unallocated Codes

Administrative

- Not directly tied to customer behavior
- Some fees could be forecast
- Some codes would not be forecast (e.g. penalty fees or rarely used administrative codes)

Flexible Ramping

- EESCs are billed costs to fund resources to address future interval forecast ramp needs (interchange schedule ramps, change in net load forecast) and uncertainty (net load forecast error).
- Payments to resources respects the opportunity cost of awarding flexible ramping, so prices are marginal or the delta between resource's bid and LMP.

Real Time Bid Cost Recovery

- Recovers daily "Shortfalls" (net non-zero positive amounts) for units dispatched in the RTM.
- Charges to the EESC are based on non-zero positive amounts for units within the BAA and the BAA's pro-rata share of EIM transfers in.

Unallocated charge codes do not impact financial settlement chains of proposed set of sub-allocated charge codes. While these codes are not primary drivers of customer behavior in the EIM, they will be further reviewed as part of phased-in approach for BP-24.

Forecastability

| CC # | Charge Code Name | CC # | Charge Code Name | CC # | Charge Code Name |
|------|--|------|--|-------|--|
| 701 | Forecasting Service Fee | 5900 | Shortfall Receipt Distribution | 7087 | Daily Flexible Ramp Down Uncertainty Award Allocation |
| 1592 | EP Penalty Allocation Payment | 5901 | Shortfall Allocation Reversal | 7088 | Monthly Flexible Ramp Down Uncertainty Award Allocation |
| 2999 | Default Invoice Interest Payment | 5910 | Shortfall Allocation | 7989 | Invoice Deviation Interest Distribution |
| 3999 | Default Invoice Interest Charge | 5912 | Default Loss Allocation | 7999 | Invoice Deviation Interest Allocation |
| 4564 | GMC-EIM Transaction Charge | 7070 | Flexible Ramp Forecast Movement Settlement | 8526 | Generator Interconnection Process GIP Forfeited Deposit Allocation |
| 4575 | SMCR -Settlements, Metering, and Client Relations | 7071 | Daily Flexible Ramp Up Uncertainty Capacity Settlement | 8989 | Daily Neutrality Adjustment |
| 4989 | Daily Rounding Adjustment | 7076 | Flexible Ramp Forecast Movement Allocation | 8999 | Monthly Neutrality Adjustment |
| 4999 | Monthly Rounding Adjustment | 7077 | Daily Flexible Ramp Up Uncertainty Award Allocation | 66200 | Bid Cost Recovery EIM Settlement |
| 5024 | Invoice Late Payment Penalty | 7078 | Monthly Flexible Ramp Up Uncertainty Award Allocation | 66780 | Real Time Bid Cost Recovery Allocation EIM |
| 5025 | Financial Security Posting (Collateral) Late Payment Penalty | 7081 | Daily Flexible Ramp Down Uncertainty Capacity Settlement | | |

- Codes highlighted in green are ones that BPA would not forecast.
 - One (701) is for a service that BPA already performs at lower cost and plans to request exemption.
 - Two (7071 & 7081) are charged directly to the PRSC.
 - The rest are penalty charges or rarely used administrative charges.
- The remaining codes could, theoretically, be forecast.

Staff Proposal on Unallocated Codes

- For unallocated codes with fixed charges, propose to forecast within revenue requirement.
- For unallocated codes without fixed charges, continuing review of data availability to assess ability to incorporate in revenue requirement and/or risk assessment.
 - BPA is working with CAISO to see if further data is available to assist in forecasting unallocated codes.
- For codes forecast in the revenue requirement, costs would be segmented to the Network, Southern Intertie, and Eastern Intertie, using the O&M percentages.

Final Workshop Steps

- Feedback on all Topics Except Power and Transmission Risk & Losses Methodology has an extended comment period:
 - Please submit to techforum@bpa.gov (with copy to your account executive) by September 18, 2020

APPENDIX

For Reference: Codes with Fixed Charges

- Of the forecastable codes, two are based on fixed monthly charges or posted rates.
- 4575 (Settlements, Metering & Client Relations) is a flat \$1,000/month charge.
- 4564 (Grid Management Charge) has two defined rates within it
 - EIM Market Service Charge Rate: \$0.0841/MWh (2019 Rate)
 - EIM System Operations Charge Rate: \$0.1091/MWh (2019 Rate)
 - The EIM ROD includes estimates of the 5 minute and 15 minute purchases and sales as simulated by E3.
 - The base scenario estimates a total of 791.9 aMW or about 6.9 million MWh.
 - This would produce an annual cost of \$1.34 million.
- Total cost of these codes = \$1.35 million/year.

For Reference: Codes Without Fixed Charges

- There is limited data on the remaining codes.
- CAISO provided data on the range of monthly costs of other EESCs of our size.

| | | Maxium Monthly Average | Minimum Monthly Average |
|-------|---|---------------------------|----------------------------|
| 7070 | Flexible Ramp Forecast Movement Settlement | \$49,000.00 | (\$7,000.00) |
| 7076 | Flexible Ramp Forecast Movement Allocation | \$7,000.00 | (\$13,000.00) |
| 7077 | Daily Flexible Ramp Up Uncertainty Award Allocation | \$34,000.00 | \$0.00 |
| 7087 | Daily Flexible Ramp Down Uncertainty Award Allocation | \$8,000.00 | (\$1,000.00) |
| 66780 | Real Time Bid Cost Recovery Allocation EIM | \$510,000.00 | \$0.00 |
| | Total | \$608,000.00 | (\$21,000.00) |

- Continuing to further evaluate these codes to determine the best approach with CAISO.
- Working to receive updated information as there have been changes in the market structure since the original data was provided by the CAISO.

Examples for Neutrality & Over/Under Scheduling

▪ Measured Demand Magnitude

- Total measured demand = 1150 + 950 + 2010 + 1000 = 5510
- LSE1 = $X * 1150 / 5110 = X * 22\%$
- LSE2 = $X * 950 / 5110 = X * 19\%$
- LSE3 = $X * 2010 / 5110 = X * 39\%$
- LSE4 = $X * 1000 / 5110 = X * 21\%$

| | LSE 1 | LSE 2 | LSE 3 | LSE 4 | Total |
|----------------------|-------|-------|-------|-------|-------|
| Schedules (Internal) | 500 | 1000 | 2000 | 1000 | 4500 |
| Export Schedules | 600 | 0 | 0 | 0 | 600 |
| Metered Demand | 550 | 950 | 2010 | 1000 | 4510 |
| Measured Demand | 1150 | 950 | 2010 | 1000 | 5110 |
| Imbalance | +50 | -50 | +10 | 0 | +10 |

▪ Imbalance by Magnitude

- Total absolute imbalance = $abs(+50) + abs(-50) + abs(10) + abs(0) = 110$
- LSE1 = $X * abs(+50) / 110 = X * 45\%$
- LSE2 = $X * abs(-50) / 110 = X * 45\%$
- LSE3 = $X * abs(+10) / 110 = X * 9\%$
- LSE4 = 0

Note: Inclusion of generation in Imbalance by Magnitude would need to be determined, but mathematically would have similar inclusion.

▪ Imbalance by Direction

- Total imbalance in applicable direction = $+50 + (-50) + (10) + (0) = 60$
- LSE1 = $X * 50 / 60 = X * 83\%$
- LSE2 = 0
- LSE3 = $X * 10 / 60 = X * 17\%$
- LSE4 = 0

▪ Metered Demand Magnitude

- Total metered demand = 550 + 950 + 2010 + 1000 = 4510
- LSE1 = $X * 550 / 4510 = X * 12\%$
- LSE 2 = $X * 950 / 4510 = X * 21\%$
- LSE 3 = $X * 2010 / 4510 = X * 45\%$
- LSE 4 = $X * 1000 / 4510 = X * 22\%$

(Additionally, BPA could elect to only allocate credits to those customers below a certain imbalance threshold)

Note: Assume X is the charge or credit received from the CAISO

6/23 & 6/24 Workshop - Customer Comments

| Topic | Comment Summary | BPA Response |
|--|---|--|
| <p>General Comments</p> | <ul style="list-style-type: none"> • Provide further examples of how EIM charges and rates will impact certain classes of customers. • Failure to appropriately sub-allocate charge codes could result in bad behaviors that may result in substantial costs and negative consequences • EIM can provide financial and renewable integration benefits but wary of contentious adoption and missing win-win opportunities. • Consider additional time to July agenda and wherever else necessary to ensure adequate time to discuss the issues • Clearly identify implementation issues not being addressed prior to rates/tariff cases | <ul style="list-style-type: none"> • Thank you for your comments. Going forward we will start at 9 a.m. and will give enough time to address the issues • EIM Imbalance Scenarios will be discussed in this workshop • We are working to identify implementation issues as soon as possible |
| <p>Resource Sufficiency</p> | <ul style="list-style-type: none"> • Support for Status Quo for balancing BAA • Support for Status Quo for not setting Ramp Sufficiency pass target • How will gaps in balancing tests be covered? • Pursue further balance between cost to transmission customers and benefits to load customers. | <ul style="list-style-type: none"> • Thank you for your comments |
| <p>Participating Resource Requirements</p> | <ul style="list-style-type: none"> • Confirm that requirements only apply to 3 MW or greater • Concerns with lack of requirements for PR to hold transmission rights • Evaluate impacts to EDAM • Encourage BPA to address demand response participation before BP-24 if possible • T-75 deadline not feasible for resources in non-EIM BAAs • Supports consistent policies and implementation across the EIM footprint | <ul style="list-style-type: none"> • Thank you for your comments, these comments will be addressed in the later in the workshop |

6/23 & 6/24 Workshop - Customer Comments (cont.)

| Topic | Comment Summary | BPA Response |
|------------------------|--|---|
| Transmission Donation | <ul style="list-style-type: none"> • General support for staff recommendation • Staff recommendation not consistent with BPA ROD or other EIM tariffs • Please provide further analysis supporting EIM limitations resulting from firm-only donations. • Aggregate all transmission donations on a single ETSR/Export tag • Provide examples of donations, including redirects of existing reservations • Further evaluate impact of return of losses on donated transmission • Concerned that current loss provisions may be a disincentive to donate transmission • Carefully evaluate rules and approaches for donations • Provide further details on BPA’s analysis and how it influenced the staff recommendation. • Unlimited non-firm should be further evaluated. • Provide clarification on how non-firm donations will not impact quality of how long-term rights are used. • Clarify how ETSRs might help reduce likelihood of curtailments | <ul style="list-style-type: none"> • Thank you for your comments. These comments will be considered for the initial proposal |
| Base Schedule Timeline | <ul style="list-style-type: none"> • Support for both T-50 and T-57 <ul style="list-style-type: none"> • T-50 may minimize exposure to congestion costs • T-57 is consistent with other EIM entities • Not clear if additional seven minutes outweighs the potential complexity, costs and burdens • Clarify impacts and risks of changes up to T-20 | <ul style="list-style-type: none"> • Thank you for your comments. The risks and comments will be considered for the initial proposal |

6/23 & 6/24 Workshop - Customer Comments (cont.)

| Topic | Comment Summary | BPA Response |
|---------------------|---|--|
| Gen Inputs | <ul style="list-style-type: none"> • Would proposed DERS reserves framework be adopted if BPA does not join EIM? • New method for pricing balancing reserves must show that it is revenue neutral compared to current methodology • Customers should have option to use their meteorological forecast • Show impact to BP-22 ancillary rates be if <u>committed scheduling</u> were retained. • Supports pricing different types of capacity with industry standards & market values • Further discuss impacts to OCBR & OMP if BPA joins EIM • Supports a timeline that allows wind resources adequate time to manage and schedule their resource portfolio • BPA super forecast struggles with handling outages, improvement is needed. | <ul style="list-style-type: none"> • Thank you for your comments more discussion of the DERS and the Gen Inputs rates will be later this workshop and in August • OMP and OCBR will be discussed as part of the Business Practice Change Processes for the EIM (the Oversupply Management BP and the Balancing Reserves Capacity BPA for OCBR) |
| Transmission Losses | <ul style="list-style-type: none"> • General support for maintaining the status quo, both in-kind and financial • General support for monetizing the value of capacity used by Power Services but should reflect BPA’s capacity cost • General support for the FFI which should be established in tariff proceedings • Eliminating “In-kind” is non-negotiable and should not be part of TC-22 or TC-24 • Acknowledge that how losses are treated in an EIM may be different than network • Any financial settlement rate should be a transmission rate and should be based in embedded costs. • General support of returning losses sooner than 168 hours. • General support for updating transmission loss factor and updating on a regular basis and using seasonal values. • Is there a loss factor for Montana or Southern interties? • BPA should provide further information on administrative and implementation costs and challenges that support staff alternative. | <ul style="list-style-type: none"> • Thank you for your comments. These will be considered as for the August workshop |

6/23 & 6/24 Workshop - Customer Comments (cont.)

| Topic | Comment Summary | BPA Response |
|---------------------------|--|--|
| Generator Interconnection | <ul style="list-style-type: none"> Supportive of Alt 4 to update Attachment L with both Repower and Replacement provisions | <ul style="list-style-type: none"> Thank you for your comments |
| Power Rates | <ul style="list-style-type: none"> Support further exploration of proposal on secondary revenues <ul style="list-style-type: none"> Meets customer needs Reduces agency reliance on secondary revenues Time is now There should be no immediate rate impact Secondary revenue construct should be further considered utilizing customer proposed principles | <ul style="list-style-type: none"> Thank you for your comments |
| Hourly Firm & ST ATC | <ul style="list-style-type: none"> Supports retaining Hourly Firm in TC-22 Continue to improve ATC and other factors that could mitigate existing limitations to Hourly Firm Revisit allowing Hourly Firm reservations within the operating day | <ul style="list-style-type: none"> Thank you for your comments BPA has not identified any of the conditions necessary to reconsider its current Hourly Firm service There is not sufficient data to warrant a reconsideration of the status quo The status quo recommendation allows staff more time to evaluate prior to TC-24, which is in alignment with the settlement agreement |

5/19 Workshop - Customer Comments

| Topic | Comment Summary | BPA Response |
|--------------------------|--|---|
| Workshop Schedule | <ul style="list-style-type: none"> • Ensure sufficient time to engage customers in iterative process on important issues and if more time is necessary consider additional workshops. • Continue to notify customers of any procedural, topical or timeline changes in advance. • Ensure schedules are aligned on all documentation. | <ul style="list-style-type: none"> • Thank you for the comments we have added time and dates to give customers time to provide comments in the work plan proceeding these slides |
| Seller's Choice | <ul style="list-style-type: none"> • Clarify process for encumbering/unencumbering ATC for NT service, particularly for Seller's Choice. <ul style="list-style-type: none"> • Clarify Reservation and Scheduling process for Seller's Choice • Clarify how an FTSR goes through the ATC process • Provide further examples of how impacts/effects of Seller's Choice are calculated. <ul style="list-style-type: none"> • This analysis is important for any decision to extend. • Provide examples/analysis of how Seller's Choice impacts Hourly Firm ATC • Evaluate impacts of the NT MOA on ATC and propose to include in TC-22 proceedings. • Additional analysis is important to determining whether to support or oppose • Seller's Choice is a vital market alternative for NT customers for Mid-C market purchases <ul style="list-style-type: none"> • Hourly Firm no longer reliable • Seller's Choice mitigates impacts resulting from limited Hourly Firm and absence of Preemption & Competition | <ul style="list-style-type: none"> • Thank you for your comments the team is reviewing the comments are planning to have a customer meeting on July 15 to respond to customer comments during the customer led workshop. |

5/19 Workshop - Customer Comments (cont.)

| Topic | Comment Summary | BPA Response |
|-------------------------|---|--|
| RPO | <ul style="list-style-type: none"> Support Attachment K referencing NorthernGrid planning process to be most efficient and avoid discrepancies | <ul style="list-style-type: none"> Thank you for your comments |
| Intertie Studies | <ul style="list-style-type: none"> Both alternatives appear viable Consider modification of Alt 1 to include option for customer to request a study Some concerns with level of “BPA discretion in Alt 1 | <ul style="list-style-type: none"> Thank you for your comments. The team will consider your comments for alternative #1 |
| Tariff Language | <ul style="list-style-type: none"> Supports a separate service agreement for participation in EIM Supports minor amendments to Attachment A for e-signature and such | <ul style="list-style-type: none"> Thank you for your comments, they have been forwarded to the SMEs for consideration. |
| BP-22 Rates | <ul style="list-style-type: none"> If possible, provide materials for Revenue Requirements and Risk as soon as possible to allow for internal vetting prior to workshops Concerns with degradation of FBS, need to work with region to develop ways to improve value of FBS DERBS service should be re-evaluated during BP-22 Functionalization and assignment of GridMod and EIM costs should be addressed in BP-22 Consider customer input on principles and requirements for a 7(f) rate discussion 200 kW threshold for SGIP should be addressed in BP-22 | <ul style="list-style-type: none"> Thank you for your comments. The comments and suggestions are being considered and we will share with you at our next meeting when these topics are scheduled to be discussed. |

5/19 Workshop - Customer Comments (cont.)

| Topic | Comment Summary | BPA Response |
|-------------------------|---|---|
| General Comments | <ul style="list-style-type: none"> • Provide an update on Preemption and Competition with regards to BPA’s plan to comply with Order 676-I and associated NAESB standards. • BPA must pursue policies that are fair and equitable to both NT and PTP customers. | <ul style="list-style-type: none"> • Thank you for your comments. We have an update at the customer let workshop on July 15 |
| | <ul style="list-style-type: none"> • Undesignation of NT Resources should be included in TC-22 | <ul style="list-style-type: none"> • The undesignation of is currently prioritized to be discussed in TC-24 |
| | <ul style="list-style-type: none"> • No policy decisions on charge code allocation should be made until there is more data to support allocation and price signals. | <ul style="list-style-type: none"> • Thank you for your comments on the charge code cost allocation. The team will consider this and the Powerex presentation in its evaluation. |
| | <ul style="list-style-type: none"> • Provide requirements for small, non-participating resources if BPA joins the EIM | <ul style="list-style-type: none"> • Thank you for your comments on the requirements for the small and non participating resources. The requirements are included in today’s presentation. |

4/28 Workshop - Customer Comments

| Customer | Comment Summary | BPA Response |
|-------------------------------|---|---|
| Charge Code Allocation | <ul style="list-style-type: none"> • Existing transmission usage should be preserved to the extent possible to minimize unintended consequences of existing use of the FCRTS and BPA’s transmission business model • Per BPA’s own criteria, to the extent possible, maintain alignment with FERC-approved allocation methods, particularly to avoid seams issues • Allocation of charges/credits should be consistent with cost causation to avoid uneconomic price signals and increased costs and included in evaluation criteria • Clarify how charges attributable to load following customers will be allocated and accounted for. • Concerned with unintended shift of costs to transmission customers and with revenues only benefiting BPA Power • Revenues should be allocated to transmission customers to offset costs with any surplus to Power • Request further clarification on certain charge codes that are excluded from initial sub-allocation (bid cost recovery, flexible ramp, grid management, enforcement protocol, administrative) • Operational experience will mitigate inappropriate allocation of charges/credits. Until such experience is attained, consider no sub-allocation. • If proceeding with sub-allocation, develop a framework to guide charge/credit allocation. • If proceeding with sub-allocation, all charge codes should be well understood | <ul style="list-style-type: none"> • Thank you for your comments. BPA will continue to evaluate the impacts and consider the concerns expressed as we approach the implementation phase. |

4/28 Workshop - Customer Comments (Cont.)

| Customer | Comment Summary | BPA Response |
|--------------------------|--|---|
| Proposed Workplan | <ul style="list-style-type: none"> • Provide clarification on status of 7(f) options and grandfathered Green Exception • Undesignation of DNR should be addressed in TC-22 | <ul style="list-style-type: none"> • See BP-22 Rate Case Kickoff presentation. • BPA does not calculate its ST ATC frequently enough for ST undesignations to be reflected in ST ATC. • The systems are not in place at this time to recognize ST undesignations of NT resources and release the corresponding ST ATC to the market. • The full implementation of NITS on OASIS will include this functionality. However, the recent FERC Order 676-I makes extensive changes to the NITS on OASIS module that OATI needs to build over the next several months. • BPA still offers unlimited non-firm transmission, which mitigates the impact of not releasing ST ATC to the non-firm market after ST undesignation of a network resource. |

4/28 Workshop - Customer Comments (Cont.)

| Customer | Comment Summary | BPA Response |
|---------------------------------------|--|---|
| Solar Study (BP-20 Settlement) | <ul style="list-style-type: none"> • Don't support decision to delay development of a shaped quantity of reserves • Study should be expanded to include wind resources • BPA should be prepared to revisit should circumstances change | <ul style="list-style-type: none"> • Thank you for your comment. Should circumstances change significantly, BPA is prepared to revisit. |
| Creditworthiness | <ul style="list-style-type: none"> • Support alignment with structure of pro forma approach | <ul style="list-style-type: none"> • Thank you |
| Agreement Templates | <ul style="list-style-type: none"> • Proposed clarifying language regarding service commencement | <ul style="list-style-type: none"> • Thank you. We will review consider it our next workshop in June |
| Tariff Language Review | <ul style="list-style-type: none"> • Inter-related issues should be presented together to ensure complete picture of tariff edits is understood | <ul style="list-style-type: none"> • BPA will share tariff language with customers as it's available. At the final workshop a complete draft tariff will be shared with customers with an opportunity to provide feedback before that language goes into the Initial Proposal. |
| General Comments | <ul style="list-style-type: none"> • EIM must support the Northwest's current shift to low carbon resources and not result in negative financial impact to VERS • Requests a workshop to educate CAISO on tools that BPA and renewables have used to reduce integration costs | <ul style="list-style-type: none"> • Thank you |
| Timeline for Base Schedules | <ul style="list-style-type: none"> • T-57 scheduling deadline may increase VERBS exposure to balancing reserves • Supports exploration of possibly reducing balancing reserve requirements • Entities may be forced to make decisions to use transmission to support within hour scheduling versus EIM participation. | <ul style="list-style-type: none"> • This will be considered in the June presentation |

3/17 Workshop - Customer Comments

| Customer | Comment Summary | BPA Response |
|----------------------------------|---|---|
| Work Plan & Workshops | <ul style="list-style-type: none"> • More information and clarity needed on EIM Phase III Decision Document • Clarify where all policy issues will be documented • Identify topics that could be delayed or simplified to allow focus on priority issues • Support additional workshops • Continue to use the VENN diagram to highlight topics | <ul style="list-style-type: none"> • BPA has included a detail policy questions and proposal on where those decisions will be made in the presentation |
| Seller's Choice | <ul style="list-style-type: none"> • Support access to non-federal resources at Mid-C • Clarify whether there is an impact to ATC due to NT encumbrance. • Be careful with any policies that deviate from the OATT. • Provide additional analysis of reservations/schedules/flow impacts at Mid-C. | <ul style="list-style-type: none"> • These concerns will be considered and addressed in May, when Seller's choice will be discussed |
| Transmission Losses | <ul style="list-style-type: none"> • General support for Alternative 3 and 5, maintain both options with financial rate developed in rate case. • This issue should be able to be resolved quickly • Support financial for inaccuracy charge • Additional details needed on financial pricing including impacts by customer type • Additional details needed on customer impacts/benefits • Administrative costs may be worthwhile/appropriate • Consider additional decision criteria (per submissions) | <ul style="list-style-type: none"> • Thank you for your feedback. These comments will be considered and addressed in the May workshop |
| EIM Transmission Usage | <ul style="list-style-type: none"> • Support for modifications to scope and objective • Support non-firm donations • Concerns with donation deadlines misaligned with market intervals • Evaluate impacts to dynamic transfers as compared to ETSRs. • Cost recovery mechanisms must be in place to follow cost-causation principles | <ul style="list-style-type: none"> • Thank you for your feedback, your concerns will be considered and addressed in the June workshop |
| Intertie Studies | <ul style="list-style-type: none"> • Support updating the tariff • Maximize flexibility and minimize financial exposure • Work with customers, regional stakeholders and partners on expansion needs | <ul style="list-style-type: none"> • Thank you for your comments. BPA staff will consider these comments as we address the tariff discussion for the Intertie studies at the May workshop. |

2/25 Workshop - Customer Comments

| Customer | Comment Summary | BPA Response |
|-------------------------------|---|---|
| Charge Code Allocation | <ul style="list-style-type: none"> • Comments received reflected support for both a phased in sub-allocation approach as well as a “direct-assigned” approach that would utilize CAISO charge codes. <ul style="list-style-type: none"> • Develop more examples of how different customer types would be treated under the different alternatives. • Provide additional estimates on the administrative costs. • Provide a cost-benefit analysis for each alternative that weighs benefits against administrative costs. • If no sub or sub-allocation: <ul style="list-style-type: none"> • Balance cost-causation with simplicity • Imbalance service should be developed as a separate rate • Will better ensure existing transmission rights are respected • Focus on Base Codes and Scheduling Entity Codes • If direct assigned (FERC-approved allocation method): <ul style="list-style-type: none"> • Maintain incentives for customers to schedule accurately within the BAA • Consistency across EIM footprint • Maintains consistency with FERC, one of BPA’s tariff principles • Insulation of costs will create risk of hiding EIM market signals • A phased in approach could be applied • Concerned that development of rate mechanisms will not capture granularity • Experiences with EIM suggest more administrative burden up front but ease of that burden moving forward. • Administrative burden to insulate customers is not a justifiable argument and eventually will be same level as other EIM entities • Customers need transparency for market signals and disputes • Ensures better adaptability and response to future changes from CAISO instead of every two years. | <ul style="list-style-type: none"> • Direct assignment, sub allocation will be discussed in the alternatives in Steps 5 and 6 on April 28. |

2/25 Workshop - Customer Comments (Cont.)

| Customer | Comment Summary | BPA Response |
|----------------------------------|---|---|
| Resource Sufficiency | <ul style="list-style-type: none"> • Don't establish a target • Develop financial mitigation for the t-20 to t-55 window • Develop a matrix of 4 alternatives for better comparative capability | <ul style="list-style-type: none"> • The target and the alternatives will be discussed in steps 5 and 6 in the April 28 workshop. |
| Gen Inputs | <ul style="list-style-type: none"> • Develop principles for Gen Inputs • EIM benefits should be part of Gen Input rate design • Maintain close association with Charge Code discussion • Schedules 9 and 10 might benefit from transitioning to EIM methodology • Need a more robust conversation about ID, PD, EI, and GI rates relative to the charge code sub-allocation alternatives • Eliminating the 30/60 and 30/15 committed scheduling elections options will increase the capacity that BPA must set aside for reserves and increase the rates that ancillary services customers will have to pay | <ul style="list-style-type: none"> • The team will consider the customer request and respond at the April workshop • The alternatives will be considered in the development of steps 3 and 4 in the April workshop. |
| Creditworthiness | <ul style="list-style-type: none"> • Attachment to the OATT | <ul style="list-style-type: none"> • Attachment to the OATT will be considered the review of the alternatives in steps 3 to 4 in the April workshop |
| Section 7(f) Power Rates | <ul style="list-style-type: none"> • Customers have requested we explore contractual solutions such as the grandfathered Green Exception." | <ul style="list-style-type: none"> • The team will address this in our next workshop on service under 7(f). |
| Regional Planning | <ul style="list-style-type: none"> • Revise Attachment K to ensure future changes must go through tariff process | <ul style="list-style-type: none"> • We will consider this alternative in steps 3 and 4 which will be reviewed in the May workshop |
| Generator Interconnection | <ul style="list-style-type: none"> • Support for implementation of Order 845 • Need more information regarding "streamlining" proposal to ensure no queue discrimination | <ul style="list-style-type: none"> • Thank you |

1/28 Workshop - Customer Comments

| Customer | Comment Summary | BPA Response |
|----------------------------|--|---|
| Objective Statement | <ul style="list-style-type: none"> Clarify that BPA will not negatively impact existing rights or existing uses in favor of EIM Costs associated with EIM should be allocated to those benefiting Alternatives should consider the sub-elements of the objective statement. | <ul style="list-style-type: none"> These suggestive changes to the objective statement will be considered |
| Network Usage | <ul style="list-style-type: none"> Concerns that EIM will reduce capacity used to support bilateral transactions Encourage BPA to pursue solutions that would allow use of ATC Methodology. Admittedly may be most appropriate in EDAM BPA needs to ensure rights and expectations of existing customers under the tariff and in some cases may need to eliminate adverse commercial impacts. EIM reciprocity transmission framework is an essential principle. Align with requirements utilized by other EIM entities | <ul style="list-style-type: none"> The concerns and considerations will be evaluated in steps 3 and 4. Some of these concerns were addressed in the other forums and we will address these concerns in our evaluation. |
| Deviation Policies | <ul style="list-style-type: none"> Evaluate persistent deviation and intentional deviation penalties with respect to EIM dispatch How does EIM dispatch impact Intentional Deviation policies? | <ul style="list-style-type: none"> The penalties are discussed in the presentation 2/25 and will be evaluated in steps 3 and 4 |
| Ancillary Services | <ul style="list-style-type: none"> NIPPC posed several questions addressing concerns around how BPA will address ancillary services in EIM. Penalties/Negative Prices: Review ACS rate schedules for appropriate modifications | <ul style="list-style-type: none"> The ancillary services questions as it relates to rates are discussed in the Gen Inputs of the 2/25 workshop and will continue the discussion in future rate case workshops |

1/28 Workshop - Customer Comments (Cont.)

| Customer | Comment Summary | BPA Response |
|--|--|---|
| Participating & Non-participating Resources | <ul style="list-style-type: none"> • Non-participating Resources: Concerned with requirements for co-gen resources • Participating Resources: BPA should present preliminary evaluation along with pros and cons on what types of transmission products for EIM transfers. • External-BA Resources: will BPA allow dynamic schedules? • Participating Resources: NIPPC poses several questions regarding type of transmission donations and the donation process. <ul style="list-style-type: none"> ○ Survey and share findings of how existing EIM participant approaches to these questions. ○ How will BPA manage exposure to EIM prices? | <ul style="list-style-type: none"> • The concerns and the evaluation will be discussed during the steps 3 and 4 |
| Un-designation of DNR | <ul style="list-style-type: none"> • Un-designation of DNR <ul style="list-style-type: none"> ○ Require the Un-designation of DNRs being used to make Firm network sales ○ Address this issue in TC-22 including review of the NT MOA | <ul style="list-style-type: none"> • The NT team is reviewing these comments and will have a response at the next TC-20 settlement workshop. |
| Solar Study (BP-20) | <ul style="list-style-type: none"> • Solar Study (BP-20): Material value to exploring shaped reserve option. • Gen Inputs: limited input to reach conclusions | <ul style="list-style-type: none"> • The concerns and considerations will be evaluated in steps 3 and 4 |

1/28 Workshop - Customer Comments (Cont.)

| Customer | Comment Summary | BPA Response |
|---------------------------|--|---|
| 7f Rate Design | <ul style="list-style-type: none"> • Clarify the timing, availability and market risk as a discretionary Tier 1 obligation <ul style="list-style-type: none"> ○ Also include terms & conditions, methodology for new rate and customer obligations ○ New firm surplus rate could be explored with similar clarification per above • Support continued exploration as long as available to all preference customers among other considerations. • Any new proposal for serving load following customers should be win-win for all preference customers and not create any new material risks or cost shifts • There is potential merit deserving further exploration based on initial customer benefits and BPA revenues | <ul style="list-style-type: none"> • The 7f rates team are reviewing these comments and will consider them as part of their evaluation and alternatives in upcoming rates workshop |
| Financial Planning | <ul style="list-style-type: none"> • Concerned of disproportionate burden on transmission • use of MRNR per previous filings and testimony <ul style="list-style-type: none"> ○ Accounting policies should be considered outside of a rate case ○ Amortize short-lived regulatory assets for greatest ratepayer benefits ○ More strategic approach at regulatory accounting and MRNR • include long-term cost and rate forecasting. Customers will want greater visibility | <ul style="list-style-type: none"> • These concerns and comments were forwarded to the financial planning process |
| General Comments | <ul style="list-style-type: none"> • BPA should demonstrate how it will track how the new processes will affect other topics. • EIM charges: incremental transmission charges would be problematic and upset the reciprocity transmission framework <ul style="list-style-type: none"> ○ FERC expressly disapproved of PAC’s proposal of an incremental transmission rate for EIM • VERBS: 30/15 option will most likely be eliminated. What other changes might be needed? • In general, avoid seams issues • Encourage BPA to work with stakeholders across EIM footprint | <ul style="list-style-type: none"> • These comments will be considered by the affected teams moving forward |

12/12/19 Feedback Summary

| Themes | BPA's Response |
|---|---|
| Transmission Losses concerns on pricing and capacity adder | The review of the pricing and the value for transmission losses will be discussed in the rate case |
| Customers would like to have a better understanding of the objective and reason for change for Transmission Losses. | Losses will return in the -March workshop to address this request. |
| Customers would like to have choices for settling transmission losses (i.e. physical vs financial). For example one choice could be to consider an option of returns in like kind with a penalty for customers who fail to return the loss obligation | Losses will return in the March workshop to begin sharing options. |
| Transmission loss factor should be established in Tariff proceedings | The Tariff does contain the annual average system loss factor for the network and intertie. We do not intend to suggest removing it from the Tariff. |
| Transmission losses should be included in the Transmission rates and rates schedule and should be equitably allocated | Bonneville intends to have any rate discussions during the upcoming rate case proceedings. Any discussion regarding the location (i.e. Power or Transmission Rates Schedules) will be discussed during the rate proceeding. Options of transmission losses pricing will be discussed in the rate case in steps 4 and 5. |
| The EIM losses are important and BPA is in the the best position to determine the appropriate transmission loss percentage for OATT service | In the workshops, steps 4 and 5 will discuss the option for the EIM Losses |
| Provide more information on the value lost to BPA from a customer's failure to deliver In Kind | This will be addressed in steps 4 and 5. |
| Costs are inevitable so develop cost/benefit analysis (administrative burden) for financial returns (similar to what was developed for In Kind). In other words, realize that certain administrative costs may be worthwhile due to the market value they deliver – such costs should be appropriately allocated. | This will be addressed in steps 4 and 5 |
| Be clearer of the strategic interplay between EIM Losses and Transmission Losses both in implementation and long-term | We will continue to look for opportunities to share interplay between EIM losses and Transmission losses if applicable. At this point, we do not see any interplay between EIM Losses and Transmission Losses. |
| Maintain separation between EIM Losses and Transmission Losses | We agree there is a separation of EIM Losses and Transmission Losses |

12/12/19 Feedback Summary (cont.)

| Themes | BPA's Response |
|--|---|
| Customer proposed changes to EIM Charge Code principles | The team will consider the proposed principles and will give feedback to customers at the February workshop |
| Include a glossary of EIM charge codes and a crosswalk to current BPA rates where applicable | We will continue discussing the EIM charge codes and cross walk to current BPA rates where applicable in the February workshop materials |
| EIM charge code cost allocation should include wheel through , preference customers and interchange and non-participating resources. How are customers outside the BA considered? | Analysis and alternatives will be discussed in steps 4 and 5. |
| EIM charge code cost allocation should be initially based on cost causation and should be phased in with a partial insulation | Cost allocation is an important issue and the feedback on a phased in and partial insulation will be considered in the alternatives development |
| As the EIM charge code cost allocation (and other EIM policy issues) is discussed, one consideration is to ensuring customers existing OATT rights are fully respected and that customers maintain the ability to use their rights without facing new costs. | In the evaluation phase, there will be consideration of OATT rights and how to recover new costs . In the steps 5 and 6 the consideration of OATT rights will be evaluated |
| More clearly tie Ancillary Services to EIM Charge Codes | In the rates discussion, there will be an in-depth discussion of tying the Ancillary Services to EIM Charge Codes where it is applicable. |

12/15/19 Feedback Summary

| Themes | BPA's Response: Updated 1/28 |
|---|---|
| Provide a detailed summary timeline with topics for each workshop | We will keep an agile schedule and adjust as we hear feedback from customers. |
| Customers concurred with BPA's proposal for engagement for certain topics | No change |
| Customers want early discussions on the following topics: <ul style="list-style-type: none"> • Transmission Usage • Creditworthiness • EIM Metering and Data Requirements • EIM Non Federal Resources | Based on customer feedback, we have started discussion on the identified topics from customers in Jan. and Feb. This is reflected in the schedule on the Meetings and Workshops page |
| Provide customers information on where/if there will be changes for Rate Case topics | We recognize rates have dependencies on EIM policy topic decisions and we will stay coordinated with the topics. We also recognize their dependencies on charge code, gen inputs and Priority Firm Load. We have discussions on rate case issue in the Jan workshop and will continue those discussions through the summer. |
| Provide an explanation of why the proposed future tariff topics are not part of TC-22 | The future deferred tariff topics are due to possible changes in industry standards and developing markets. As we discussed in the Oct. 23 workshop, we are focusing on EIM for this proceeding. |
| Identify early in steps 1 & 2 where there are dependencies for other topics | We will identify the steps and to the extent we know the dependencies, will include them. |
| Provide a crosswalk of the Tariff issues from TC-20 to TC-22 | Please see appendix at workshop in Nov. 19. |

12/15/19 Feedback Summary (cont.)

| Themes | BPA's Response: Updated 1/28 |
|---|--|
| EDAM impact on rates and tariff | EDAM policy is out of scope in the rates and tariff. Customers have the ability to participate directly in the CAISO's EDAM policy initiative process. Bonneville's evaluation of whether and how to join EDAM is anticipated to be another decision process – much like EIM – including the development of principles for our evaluation. We also anticipate that process would then be followed by rates and tariff cases. |
| Green House accounting | Green house gas accounting is out of scope in the rates and tariff process. The policy was discussed in the following workshop: https://www.bpa.gov/Projects/Initiatives/EIM/Doc/20190312-March-13-2019-EIM-Stakeholder-Mtg.pdf |
| EIM governance | EIM governance is out of scope in the rates and tariff process. Customers have the ability to participate in CAISO's governance review process. |
| Leverage customer led workshops to share experiences and challenges | We worked with other participants to get a better understanding of their experiences and challenges. We also agree the monthly customer led workshops are an excellent forum to share experiences and challenges with other customers. Our first requested customer led workshop was 1/15. |
| Carry larger ancillary services reserves | This will be addressed in the Gen Inputs discussion. |
| More discussion is needed on steps 1 & 2 for resource sufficiency. Customers provided several questions to gain a better understanding. | We will look at the schedule and update it to address these questions. |

12/15/19 Feedback Summary (cont.)

| Themes | BPA's Response: Updated 1/28 |
|---|---|
| Develop a roadmap of how future deferred tariff topics are addressed. | The future deferred tariff topics are due to possible changes in industry standards and developing markets. We don't have roadmaps at this time. We would look to develop roadmaps after the conclusion of TC-22 if warranted. |
| Regional Planning Organization may have a couple of options | This will be addressed in steps 3-6 of the RPO discussion. An RPO update will be discussed at the 2/25 workshop and step 3 will be addressed in the 4/28 workshop. |
| Oversupply discussion and if it is needed in EIM | As noted in the EIM discussions at https://www.bpa.gov/Projects/Initiatives/EIM/Doc/20190312-March-13-2019-EIM-Stakeholder-Mtg.pdf BPA believes OMP is compatible with EIM. As we gain experience with EIM operations, we will continue to evaluate implementation and consider any potential changes in future tariff cases. |

EIM Issue Inter-Dependencies Identified

