

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

May 19, 2020



AGENDA REVIEW AND FEEDBACK FROM PRIOR WORKSHOP

Agenda

TIME*	TOPIC	Presenter
8:30 to 9:30 a.m.	RHWM Process	Kate Patton
9:30 to 9:40 a.m.	Summary and Overview	Rebecca Fredrickson Rachel Dibble
9:40 to 10:10 a.m.	Seller's Choice <ul style="list-style-type: none"> Steps 3-4 	Suzanne Zoller
10:10 to 10:30 a.m.	Regional Planning Organization <ul style="list-style-type: none"> Steps 3-4 	Chris Jones Jennifer Gingrich
10:30 to 10:45 a.m.	Break	
10:45 to 11:15 a.m.	Intertie Studies <ul style="list-style-type: none"> Steps 4-6 	Abbey Nulph Bob King
11:15 to 12:15 p.m.	Review of Tariff Language for EIM	Melanie Bersaas Sarah Kutil Rich Greene
12:15 to 1:15 p.m.	LUNCH	
1:15 to 1:45 p.m.	BP-22 Rates Kickoff	Daniel Fisher Miranda McGraw
1:45 to 2:00 p.m.	Break	
2:00 to 2:30 p.m.	Transmission Rates <ul style="list-style-type: none"> Segmentation 	Miranda McGraw

* *Times are approximate*

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.

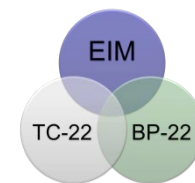
4/28 Workshop - Customer Comments (Cont.)

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.

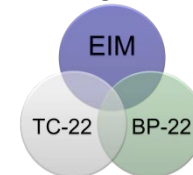
4/28 Workshop - Customer Comments (Cont.)

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-75 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

EIM Priority Issues



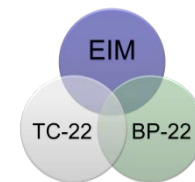
#	Issue	BP-22	TC-22	Future BP/TC
1	EIM Charge Code Allocation	X	?	X
2	EIM Losses	X	X	?
3	Resource Sufficiency	X	X	?
3a	- Balancing Area Obligations	X	X	?
3b	- LSE Performance & Obligations	X	X	?
3c	- Gen Input Impacts	X	X	?
4	Development of EIM Tariff Changes		X	?
5	Transmission Usage for Network	X	X	?
6	Non-federal Resource Participation	X	X	?
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	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	Generator Interconnection (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		

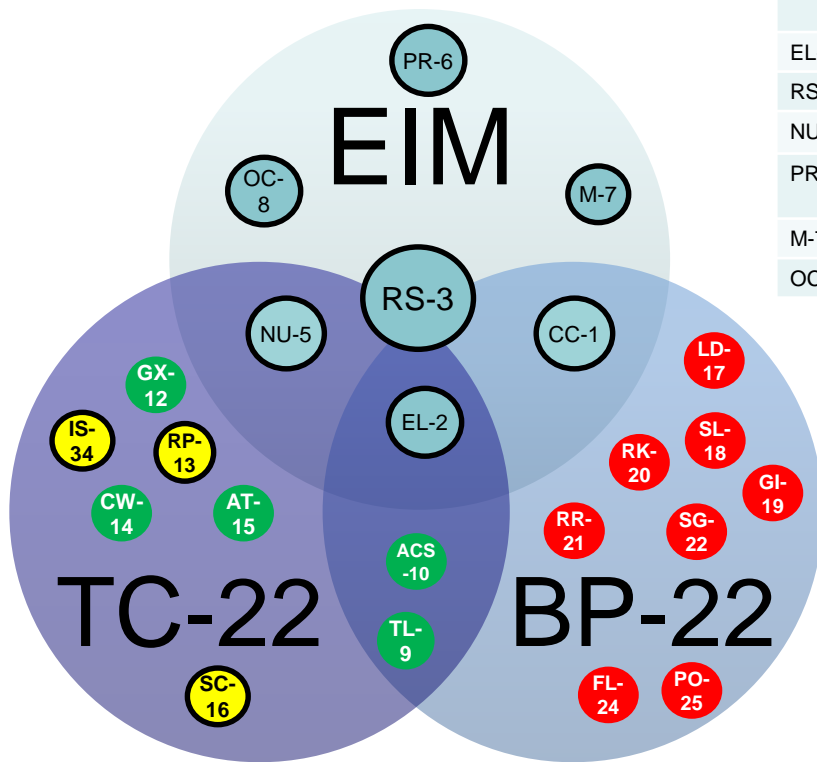
Potential Future Rates & Tariff Issues



#	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	Intertie Studies			?
35	De minimus (TC-20 Settlement)			?

BP-22, TC-22 & EIM Integrated Scope

XX-# 5/19 Workshop Topics



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

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

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

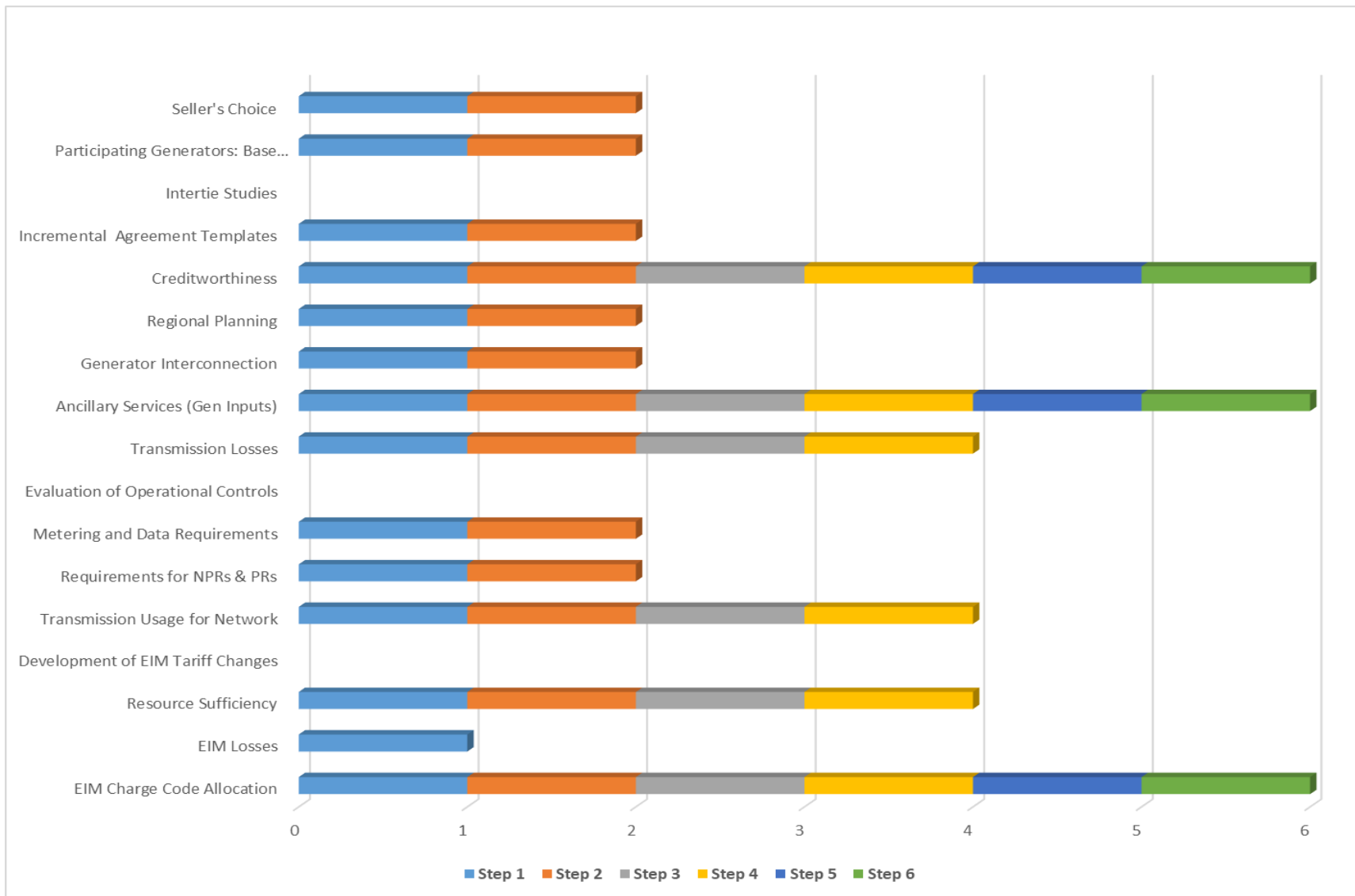
Step 5:
Discuss Customer
Feedback

Step 6:
Staff Proposal

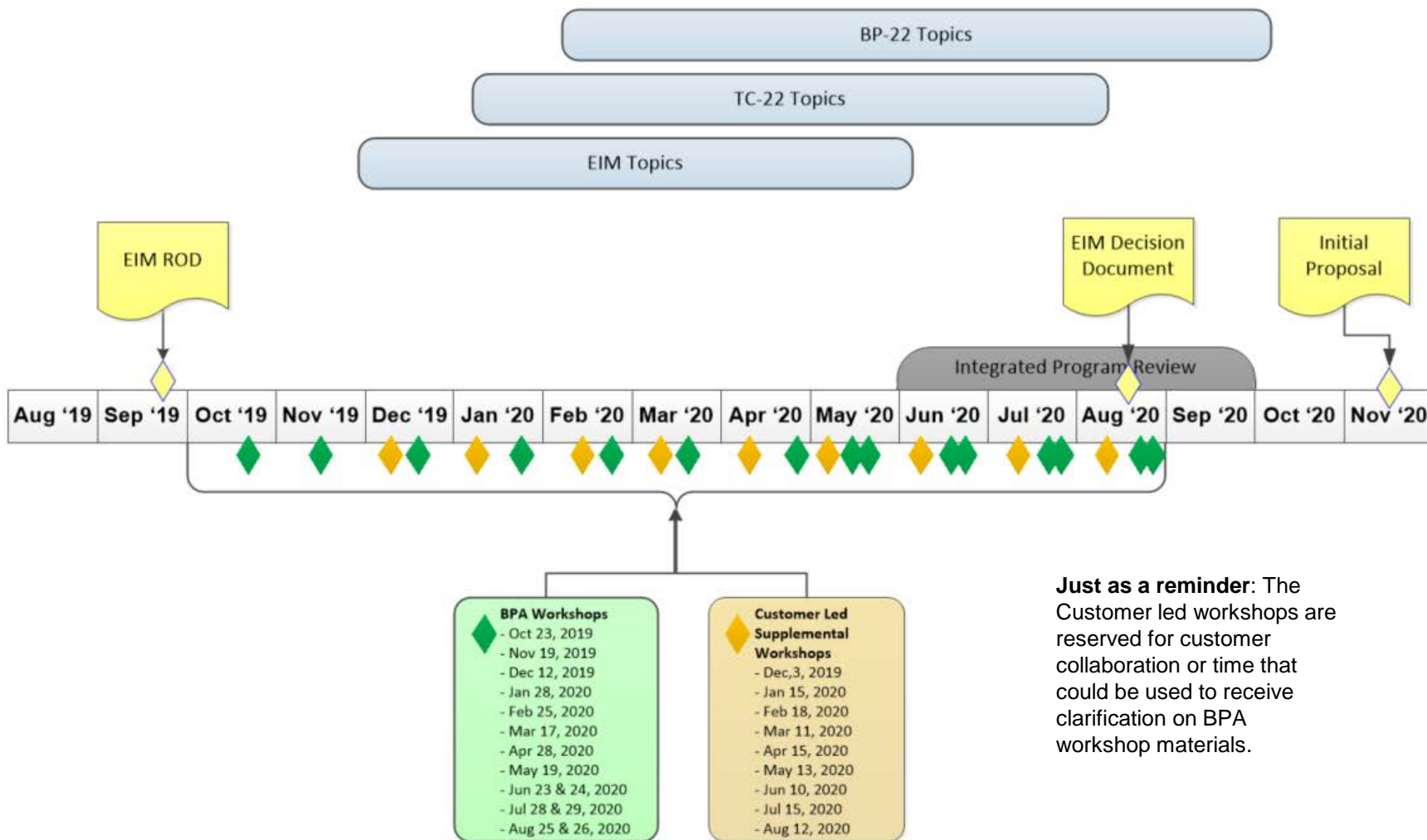
TC-22, BP-22 and EIM Workshop Topics



Status of Topics as of 5/19/2020



BP/TC-22 Proposed Workshop Timeline



Just as a reminder: The Customer led workshops are reserved for customer collaboration or time that could be used to receive clarification on BPA workshop materials.

ISSUE #16: SELLER'S CHOICE

Step 3: Analyze the Issue

Step 4: Discuss Alternatives

Seller's Choice Evaluation Approach

Phase One: Approach Development

- Step 1:**
Introduction & Education
- Step 2:**
Description of the Issue

March 17
Workshop

Phase Two: Evaluation

- Step 3:**
Analyze the Issue
- Step 4:**
Discuss Alternatives

Today's
Workshop

Phase Three: Proposal Development

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

June 23
Workshop

Agenda

- Objective & Strategic Goal
- Customer Feedback/Data Analysis
- Alternatives
- Next Steps

Objective

To collaborate with customers on BPA's Seller's Choice implementation in order to determine how best to meet customers' and BPA's needs after October 1, 2021.

Strategic Goal

- **Agency Strategic Goal 4:** Meet transmission customer needs efficiently and responsively.
 - 4c: Meet current and future needs of Network Integration Transmission Service customers through clear business practices and streamlined processes.
 - 4d: Offer more standardized products and services by better aligning BPA's Open Access Transmission Tariff with pro forma and industry best practices.

Themes:

- *Pro forma*
- ATC Impact
- Requests for Data
- Planning Impact

Customer Feedback/Data Analysis

Pro forma Impact - Clarification

Customer Comment - “BPA’s Perspectives” on Seller’s Choice as presented on page 26 of the March 17 Presentation should be revised to include consideration of whether (i) Seller’s Choice is consistent with FERC’s *pro forma* OATT (and not merely with regard to NT redispatch)

BPA Response - *Pro forma* alignment is a decision criteria for BPA’s evaluation of its Seller’s Choice implementation

Seller's Choice Data Analysis

- BPA has not fully implemented NITS on OASIS.
- Much of the Seller's Choice data analysis is a manual process.
- Assumptions will be made to estimate Seller's Choice schedules based on the NT Business Practice.

ATC Impact of Seller's Choice

LT ATC:

- Encumbering for Seller's Choice has **no impact to LT ATC**.
 - Customers are utilizing resource forecasts that have been previously encumbered.

ST ATC:

- Encumbering for Seller's Choice appears to have minor impacts to ST ATC from the time the TSRs are confirmed to the next short term base case.
- Any unused impacts from forecasted resources are released to market 60 days out, increasing ST ATC.
- BPA has not identified any ST TSRs that were refused due to the impacts of Seller's Choice to ATC.

Reservations

Customer Comment: Identify the total net MW impacts from using the Seller's Choice option compared to a single MID-C TSR (e.g., BPAT.CHPD)

BPA Response: Data analysis is in process

Reservations

Customer Comment: Identify the total number of Mid-C reservations that are using the Seller's Choice option relative to all other Mid-C reservations, both in count and MW, both PTP and NT.

BPA Response:

- Count of TSRs (See Chart #1 – Slide 12)
- MW Demand of TSRs (See Chart #2 – Slide 13)

TSR Analysis - Reservations

BPA Response:

TSR count for all products that have a POR including:

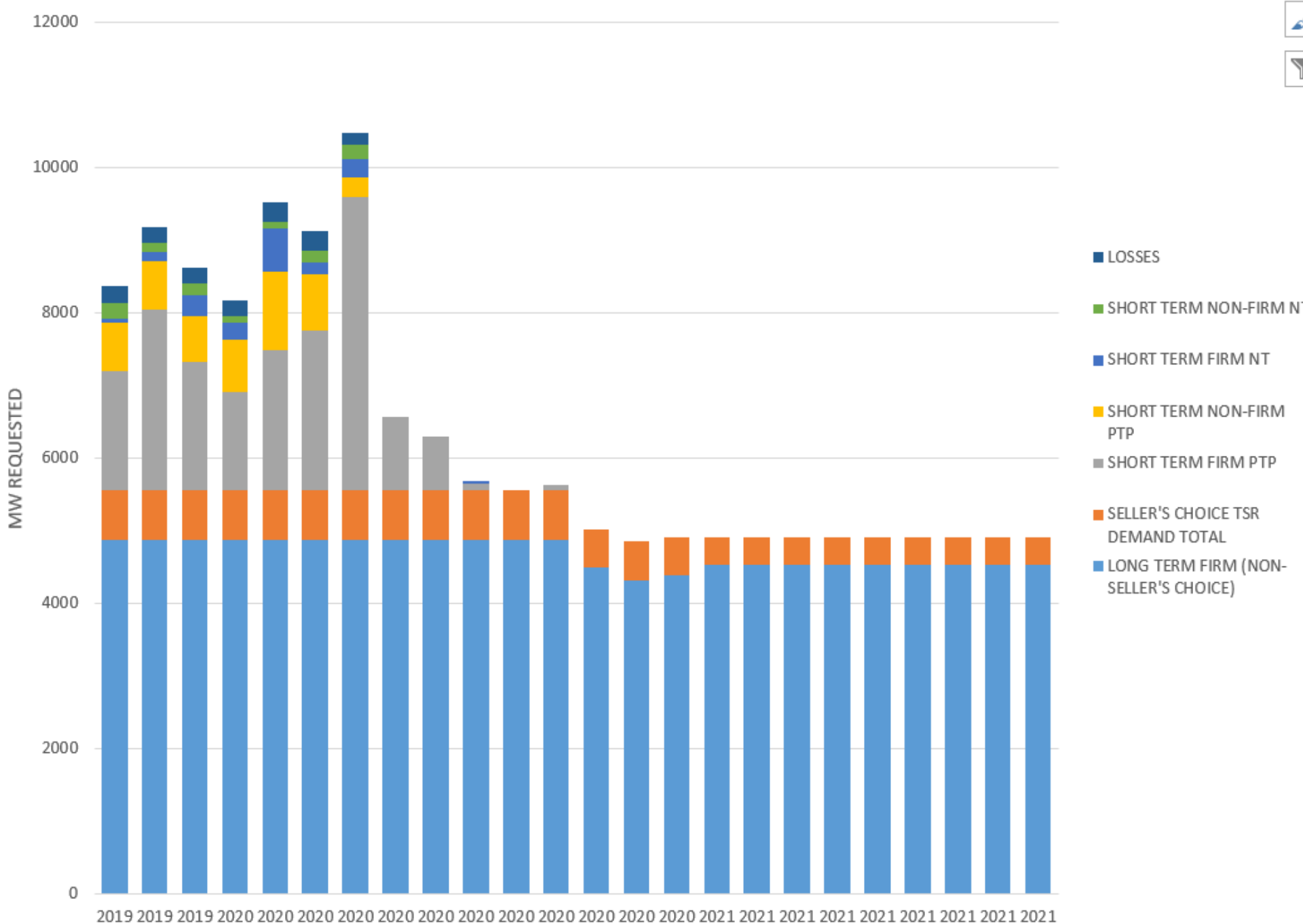
- MIDCREMOTE
- NWH
- BPAT.CHPD
- BPAT.GCPD
- BPAT.DOPD

Chart 1:

TSR Count “Confirmed” Status (Active 10/1/19-10/1/20)	Yearly	Monthly	Weekly	Daily	Hourly
All Service	291	216	34	123	28335
Network Service	131	69	7	19	3015
Seller’s Choice	65	0	0	0	0

Chart 2:

CONFIRMED TSR DEMAND PER MONTH BY PRODUCT



Schedules

Customer Comment: Identify the total number of Mid-C schedules that are using the Seller's Choice option relative to all other Mid-C schedules

- Count of schedules
- MW Demand of schedules

BPA Response: *All MWh scheduled through NWH between 10/1/2019 – 3/31/2020*

- **Seller's Choice Transactions:**
 - Total Schedules (distinct tag IDs) – **2,354**
 - Total MW – **569,274**
- **All Mid-C Transactions:**
 - Total Schedules (distinct tag IDs) – **55,564**
 - Total MW – **20,284,685**

Planning Impacts of Seller's Choice

Customer Comment: Does the Seller's Choice product have any significant impact to BPA's planning visibility relative to all of the PTP TSRs that ultimately get redirected through the Mid-C?

BPA Response:

- Planning evaluates **long-term NT** designated network resources at the time of designation to ensure the resource can serve the NT customer designated load on firm transmission.
- **Short-term PTP** redirects are evaluated based on the ATC available at the time and duration of the redirect.
- Seller's Choice deliveries at NWH compared to Mid-C PTP redirects:
 - **Similarity:** The evaluation of firm transmission is not done at the same time as the transaction from NWH to load is evaluated.
 - **Difference:** Planning has an obligation to ensure NT designated resources have a firm path to load, where BPA does not have the same obligation for PTP service.

Planning (continued)

Customer Comment: Explain the Seller's Choice impacts on planning visibility vs. the impact of PTP redirects on planning

BPA Response:

- Seller's Choice designated resources at NWH allow NT customers to be granted long-term firm capacity when Planning cannot ensure the resource (or any resource) can be delivered on firm transmission.
- Seller's Choice at NWH (internal BPA transmission system point) does not allow planning to identify the off-system delivery point for evaluation.
- PTP redirects may be used to enable the current Seller's Choice implementation or to serve other PTP sales sourcing from NWH.
- BPA has a different planning obligation and evaluation timing for PTP service versus NT service.

Alternatives

Decision Criteria

1. Considers current and future customer needs.
2. Preserves BPA's ability to meet its obligation to plan for resources used to serve NT customer load.
3. Minimizes complexity, costs, and increases feasibility of both initial implementation and ongoing maintenance in BPA's commercial systems.
4. Aligns with the *pro forma* tariff and/or industry standards or industry best practices.

Industry Standard

Common practice of neighboring
Transmission Providers:

- Removal of the requirement to identify the source BA
- Continuation of requirement to identify the point where power enters their system
- Idaho Power, Nevada, PAC, and Puget

Alternatives

Alternative 1: Status Quo: Seller's Choice ends, returning to pre TC-20 status


Alternative 2: Extend Seller's Choice as implemented through TC-22, re-evaluate for TC-24

Alternative 3: Allow Seller's Choice for off-system purchases only at the Mid-Columbia area through TC-22, re-evaluate for TC-24

Next Steps

Phase One: Approach Development

- Step 1:**
Introduction & Education
- Step 2:**
Description of the Issue

 March 17
Workshop

Phase Two: Evaluation

- Step 3:**
Analyze the Issue
- Step 4:**
Discuss Alternatives

 Today's
Workshop

Phase Three: Proposal Development

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

June 23
Workshop

June 2 – Feedback due on Seller's Choice

Please submit to techforum@bpa.gov (with copy to your Account Executive)

ISSUE #13: REGIONAL PLANNING ORGANIZATION

Step 3: Analyze the Issue

Step 4: Discuss Alternatives

Agenda

- Customer Feedback Themes
- Review of Step 2: Description of the Issue
- Step 3: Analysis of Issue
- Step 4: Possible Alternatives
- Next Steps

Customer Feedback Themes

- At the February customer workshop, BPA gave an update on NorthernGrid activities and tipped out the likely alternatives for treatment of the new regional planning process in Attachment K.
- BPA received one comment regarding Attachment K, indicating a preference for BPA to incorporate the complete regional planning process under NorthernGrid into BPA's Attachment K.
- The majority of BPA's customers have not yet indicated a preference for one approach over the other.

Review of Step 2

Description of the Issue

- Section IV of Attachment K of BPA's current Tariff addresses the regional planning process and is based on participation in ColumbiaGrid.
- BPA is now a member of NorthernGrid and will conduct its regional planning activities consistent with the NorthernGrid regional planning process.
- Issue: How should BPA reflect the NorthernGrid regional planning process in Attachment K?

Step 3: Analyze the Issue

Attachment K

Pro Forma/Industry Standard

- There is no pro forma tariff language that governs Attachment K.
- For TC-22 the industry standard will be consistency with the regional planning provisions in the Attachment Ks of the tariffs of NorthernGrid members subject to FERC jurisdiction, as memorialized in the NorthernGrid planning agreement among all NorthernGrid members.
- The NorthernGrid planning agreement among all members provides a process that aligns to the updated tariffs of NorthernGrid's FERC-jurisdictional members, apart from provisions that relate to involuntary cost allocation.
- FERC issued an order accepting the updated Attachment K in the tariffs of the jurisdictional members on March 31, 2020.

Decision Criteria

1. BPA tariff language proposal is aligned with the pro forma tariff or industry standards or industry best practices. If not aligned with pro forma and/or industry standard, the deviation is necessary to:
 - Implement BPA's statutory and legal obligations, authorities, or responsibilities;
 - Maintain the reliable and efficient operation of the federal system;
 - Prevent significant harm or provide significant benefit to BPA's mission or the region, including BPA's customers and stakeholders; or
 - Align with industry best practice when the FERC pro forma tariff is lagging behind industry best practice, including instances of BPA setting the industry best practice.
2. BPA's Attachment K is consistent with its statutory, regulatory, and contractual obligations.

Decision Criteria (cont.)

3. BPA's tariff language contains a regional process subject to a multi-party agreement negotiated among jurisdictional and non-jurisdictional entities.
4. BPA's tariff language reflects that any future amendments are (i) subject to negotiation and agreement among NorthernGrid members and (ii) may require coordination on timing of any related jurisdictional FERC processes.

Areas of Risk to be Analyzed

- Because BPA intends for its Attachment K to be aligned, to the extent possible, with the Attachment Ks of jurisdictional members as documented in the terms of the planning agreement, future changes to BPA's Attachment K will, in most instances, require coordination, negotiation, and agreement among all NorthernGrid members.
- BPA may not be able initiate a Terms and Conditions proceeding until: (i) NorthernGrid members negotiate potential changes to the planning processes; (ii) NorthernGrid jurisdictional participants make tariff filings with FERC related to the NorthernGrid jurisdictional process; (iii) FERC accepts the jurisdictional revised tariffs; and (iv) all NorthernGrid members modify the planning agreement, as necessary, to align the non-jurisdictional process to the jurisdictional process.
- This commitment limits BPA's ability to initiate a Terms and Conditions proceeding and meaningfully engage customers and stakeholders on a timeline that also allows it to adopt and implement potential future modifications to its Attachment K to align to jurisdictional tariffs.

Step 4: Alternatives

Alternatives

BPA is evaluating the following alternatives for modifying Part IV of Attachment K to reflect participation in NorthernGrid

- Alternative #1 (Status Quo/Industry Practice): Revise Part IV of Attachment K to include the full Member Planning process by NorthernGrid members

- Alternative #2: Revise Part IV of Attachment K to:
 - Incorporate a reference to NorthernGrid's website where the Member Planning process is located

Under either alternative, Part IV of BPA's Attachment K would include language that identifies the manner in which BPA will engage external stakeholders when modifications to the Member Planning process are being proposed

Next Steps

- BPA requests customer feedback on alternatives under consideration
- Please submit to techforum@bpa.gov (with a copy to your account executive) by June 2, 2020
- June customer workshop:
 - Step 5: Discuss customer feedback
 - Step 6: Discuss staff proposal

ISSUE #34: INTERTIE STUDIES

Step 4: Discuss Alternatives

Step 5: Discuss Customer Feedback

Step 6: Staff Proposal

Southern Intertie Studies: Background

Background

- On 11/12/2019, 1/28/2020, and 3/17/2020 BPA staff engaged with customers on BPA's obligation to study southern intertie requests consistent with the TC-20 Settlement Agreement and BPA's tariff.
- The TC-20 Settlement Agreement contained a commitment that “no later than January 1, 2020, Bonneville will begin a stakeholder process to review business practices related to studies of transmission service requests (“TSRs”), with the goal to examine and develop a consistent and repeatable approach to studying requests for long-term firm point-to-point transmission service on the southern intertie and network. Bonneville and Transmission Customers may identify the relevant business practices at the beginning of such process.”

Background Continued

- In March, BPA requested feedback from customers on three alternatives to achieve alignment between BPA's tariff and study processes on the Southern Intertie:
 1. Remove commercially-driven Intertie expansion from the OATT;
 2. TSR initiates study only upon Customer request; or
 3. Pro forma – offer a study to all TSRs.

Southern Intertie Studies: Customer Feedback and BPA Response

Avangrid, Avista, PGE, and PSE Comments

In light of the fact that Southern Intertie Studies are complicated and very costly to perform, it appears that Alternative 2 provides valuable flexibility by permitting customers to request transmission on the Southern Intertie without forcing them to finance expensive studies in order to remain in the queue, but at the same time permitting them to request a system impact study.

PPC Comments

Of the three options developed by BPA, the first two appear workable. PPC is concerned that the third option, creating a recurring study process on the Southern Intertie similar to the TSEP process conducted for the Network, would be unproductive. Given the high cost of expanding the Southern Intertie, the need for a highly coordinated studies with adjacent transmission operators and the previous lack of interest in pursuing expansion of the Southern Intertie BPA should not commit to a regular review for expanding the Southern Intertie at this time. Instead, BPA should continue to work with customers in the queue for Southern Intertie service, adjacent BAAs, and other regional stakeholders on studies and potential needs to expand the Southern Intertie.

Powerex Comments

Upgrading the Southern Intertie involves a substantial set of complexities, including requiring at the outset a coordinated series of studies with the joint owners and operators of the intertie and owners and operators of adjacent transmission systems. As such, Powerex appreciates the work undertaken by Bonneville regarding this topic and Powerex believes that either Alternative 1 or 2, as presented, ensures requests on the Southern Intertie are not continuously removed from the queue or are able to remain in a study state.

However, Alternative 3 would not be an appropriate remedy and would be more harmful and detrimental to existing customers with requests in the queue. Powerex reiterates that this type of approach for the Southern Intertie could raise several difficulties for Bonneville and its customers.

Those that seek to utilize long-term Southern Intertie capacity as it becomes available (such as through a non-renewal) may have to submit TSRs repeatedly, continually entering and exiting the queue, which would result in inefficiencies and unnecessary administrative burdens for customers and BPA.

BPA Response

- Thank you for your feedback.
- BPA will focus on alternatives 1 and 2 and the objectives today are to:
 - Share a refined alternative 1 and draft tariff language for both of the remaining alternatives; and
 - Share BPA staff leaning at this time; and
 - Open a comment period to solicit customer input on the possible tariff language.

Southern Intertie Studies: Alternatives

Alternative 1 – Remove Commercially-Driven Intertie Expansion from the OATT

- Modify the tariff to eliminate the requirement to conduct studies in response to Southern Intertie TSRs, so TSRs will remain in STUDY status if/until ATC is available, the TSR expires, or BPA offers a study agreement due to having identified potential upgrades.
- Offers would be made in queue order.
- Commercial requests for service would not initiate studies for Southern Intertie expansion.
- Southern Intertie expansion could still occur based on other drivers and BPA would still perform studies as needed based on system changes or developments on the intertie.
- Business practice language would need to be developed to establish this process.

* Underlined language has been added since the last workshop.

Alternative 2 – TSR Initiates Study Only Upon Request for a Study

- Modify the tariff to only conduct studies in response to Southern Intertie TSRs when a customer requests, otherwise the TSR will remain in STUDY status if/until ATC is available or the TSR expires.
- Offers would be made in queue order as capacity becomes available.
- Would likely be the SIS requestor's responsibility to engage the other impacted parties.
- Business practice language would need to be developed to establish the process, responsibilities, and clarify how the SIS would affect all TSRs in the queue.

Possible Tariff Language

§13.5 for Alt. 1 & 2

Except with respect to the Northwest AC Intertie and Pacific DC Intertie, in cases where the Transmission Provider determines that the Transmission System is not capable of providing Firm Point-To-Point Transmission Service without (1) degrading or impairing the reliability of service to Native Load Customers, Network Customers and other Transmission Customers taking Firm Point-To-Point Transmission Service, or (2) interfering with the Transmission Provider's ability to meet prior firm contractual commitments to others, the Transmission Provider will be obligated to expand or upgrade its Transmission System pursuant to the terms of Section 15.4. [. . .]

Possible Tariff Language

§15.2

- Alternative 1:

[. . .] In the event sufficient transfer capability may not exist to accommodate a service request, the Transmission Provider will respond by performing a System Impact Study. Notwithstanding anything to the contrary, the Transmission Provider will perform a System Impact Study to accommodate service requests on the Northwest AC Intertie and the Pacific DC Intertie at its discretion.

- Alternative 2:

[. . .] In the event sufficient transfer capability may not exist to accommodate a service request, the Transmission Provider will respond by performing a System Impact Study. Notwithstanding anything to the contrary, the Transmission Provider will perform a System Impact Study to accommodate service requests on the Northwest AC Intertie and the Pacific DC Intertie upon request by the Transmission Customer.

Possible Tariff Language

§15.4a for Alt. 1 & 2

If the Transmission Provider determines that it cannot accommodate a Completed Application for Firm Point-To-Point Transmission Service because of insufficient capability on its Transmission System, the Transmission Provider will use due diligence to expand or modify its Transmission System to provide the requested Firm Transmission Service, consistent with its planning obligations in Attachment K, provided the Transmission Customer agrees to compensate the Transmission Provider for such costs pursuant to the terms of Section 27. The Transmission Provider will conform to Good Utility Practice and its planning obligations in Attachment K, in determining the need for new facilities and in the design and construction of such facilities. The obligation applies only to those facilities that the Transmission Provider has the right to expand or modify; it does not apply to requests for service on the Northwest AC Intertie or the Pacific DC Intertie except that the Transmission Provider will continue to perform its planning obligations under Attachment K.

Possible Tariff Language

§17.5 for Alt. 1

Following receipt of a Completed Application for Firm Point-To-Point Transmission Service, the Transmission Provider shall make a determination of available transfer capability as required in Section 15.2. The Transmission Provider shall notify the Eligible Customer as soon as practicable, but not later than thirty (30) days after the date of receipt of a Completed Application that (i) it will be able to provide service without performing a System Impact Study, (ii) such a study is needed to evaluate the impact of the Application pursuant to Section 19.1, (iii) such a study is needed to evaluate the impact of the Application and that the Transmission Provider will perform a Cluster Study pursuant to Section 19.10 to evaluate such impact, or (iv) the request is for service on the Northwest AC Intertie or the Pacific DC Intertie and the Transmission Provider will perform System Impact and Cluster Studies at its discretion. [. . .]

Possible Tariff Language

§17.5 for Alt. 2

Following receipt of a Completed Application for Firm Point-To-Point Transmission Service, the Transmission Provider shall make a determination of available transfer capability as required in Section 15.2. The Transmission Provider shall notify the Eligible Customer as soon as practicable, but not later than thirty (30) days after the date of receipt of a Completed Application that (i) it will be able to provide service without performing a System Impact Study, (ii) such a study is needed to evaluate the impact of the Application pursuant to Section 19.1, (iii) such a study is needed to evaluate the impact of the Application and that the Transmission Provider will perform a Cluster Study pursuant to Section 19.10 to evaluate such impact, or (iv) the request is for service on the Northwest AC Intertie or the Pacific DC Intertie and the Transmission Provider will perform System Impact and Cluster Studies at request of the Eligible Customer. [. . .]

Possible Tariff Language

§19.1

- Alternative 1:

After receiving a request for service, the Transmission Provider shall determine on a non-discriminatory basis whether a System Impact Study is needed. For requests on the Northwest AC Intertie or Pacific DC Intertie, the Transmission Provider performs System Impact and Cluster Studies at its discretion. A description of the Transmission Provider's methodology for completing a System Impact Study is provided in Attachment D. If the Transmission Provider determines that a System Impact Study is necessary to accommodate the requested service, it shall so inform the Eligible Customer, as soon as practicable. [. . .]

- Alternative 2:

After receiving a request for service, the Transmission Provider shall determine on a non-discriminatory basis whether a System Impact Study is needed. For requests on the Northwest AC Intertie or Pacific DC Intertie, the Transmission Provider performs System Impact and Cluster Studies at the request of the Transmission Customer. A description of the Transmission Provider's methodology for completing a System Impact Study is provided in Attachment D. If the Transmission Provider determines that a System Impact Study is necessary to accommodate the requested service, it shall so inform the Eligible Customer, as soon as practicable. [. . .]

Staff Leaning & Next Steps

- Current staff leaning is for alternative 1.
- Comment period:
 - Please provide feedback on the possible tariff language to indicate:
 - Which alternative you would prefer and why;
 - Any suggested edits to the proposed redlines; and/or
 - Do you believe edits are needed to both sections 13.5 and 15.4a?
 - Customers should submit comments by June 2, 2020 to the techforum@bpa.gov
- BPA will collect feedback and make a decision, which will be reflected in the initial proposal for TC-22.

ISSUE #4: REVIEW OF TARIFF LANGUAGE FOR EIM

BPA approach to EIM tariff language

- No *pro forma* language baseline for entities joining EIM, but FERC has approved EIM-related language in other EIM Entities' tariffs
- Starting with TC-20 tariff language for sections that are contained in TC-20 tariff
 - Shared redline with current tariff for these sections
- BPA is starting with PGE's tariff language for EIM-specific language
- Sections with outstanding policy decisions or no tariff proposal marked "under review"
- Language shared today is still in draft form – as updates are made to language, it will be shared in subsequent workshops
- Will share complete tariff at final workshop (including Attachment Q)

EIM Entities' Tariff Changes*

Tariff Sections	Content	Tariff Sections	Content
1, Definitions	EIM-related definitions	16.1, 28.1, PTP and NT responsibilities	EIM Attachment applies to customers
7.1, Billing	Flexibility in billing increments	18.7, 30.1, 30.4, use of DNRs	NT customers participation in EIM
10.2, Indemnification	Standard of liability for EIM	Schedules 4 and 9, imbalance	Imbalance is priced through EIM
12.4A, Disputes	Dispute resolution provisions for EIM	Schedule 11, losses	Losses in EIM
13.6, 14.7, Curtailment	EIM-related language	Attachments L and N, GI	EIM application to GI
15.7, 28.5, Losses	Language for losses in EIM	Attachment Q	Add EIM Attachment

*Section numbering may be slightly different in BPA's tariff

Definitions

- BPA will add many new definitions to Section 1 of tariff
- Some items will be defined in the rates schedules and tariff definition will point to rate schedules (Instructed & Uninstructed Imbalance Energy, Measured & Metered Demand)
- Some definitions are still "under review" due to outstanding policy decisions (Interchange Rights Holder – tie to EIM Transmission Usage for Network)

Billing, Indemnification & Disputes

- Section 7.1 – BPA is still working through policy decisions related to billing frequency, but we think proposed language is flexible enough to cover range of policy decisions
- Section 10.2 – Standard of liability for EIM
- Section 12 –Provisions addressing process for billing disputes between BPA, Transmission Customers, and CAISO related to EIM charge codes. Still under development and dependent in part on cost allocation proposal in BP-22 rate proceeding.

Curtailment, PTP & NT Responsibilities

- Sections 13.6 & 14.7 – added sentence to current tariff language stating that all curtailment actions taken will be in accordance with Attachment Q
- Sections 16.1 & 28.1 – added language stating that Transmission Customers must comply with requirements of Attachment Q

Real Power Losses

- Sections 15.7 is marked as "under review" due to tie to outstanding policy decisions related to Real Power Losses

Participation in the EIM, Application Procedures

- Section 28.7 – details the kinds of agreements required for participation in the EIM – marked as "under review" due to outstanding policy decisions related to Non-Federal Resource Participation
- Section 29.2 – added language that states that there may be additional requirements during the application process in accordance with Attachment Q

Designation & Operation of Network Resources

- Section 30.1 & 30.4 – clarified that Network customers can participate in the EIM with Designated Network Resources and are not required to undesignate

Attachment Q Sections

Tariff Section
1. General Provision - Purpose and Effective Date of Attachment Q
2. Election of Transmission Customers to become BPA EIM Participating Resources
3. Eligibility to be a BPA EIM Participating Resource
4. Roles and Responsibilities
5. Transmission Operations
6. System Operations Under Normal and Emergency Conditions
7. Outages
8. EIM Settlements and Billing
9. Compliance
10. Market Contingencies

1. General Provision - Purpose and Effective Date of Attachment Q

- Establishes effective date of Attachment Q and clarifies that Attachment Q applies to all Transmission and, potentially, Interconnection Customers as well

2. Election of Transmission Customers to become BPA EIM Participating Resources

- Establishes that becoming a BPA EIM Participating Resource is voluntary and provides high level overview of application process

3. Eligibility to be a BPA EIM Participating Resource

- Lays out eligibility requirements and application process to become a BPA EIM Participating Resource – some sections marked "under review" due to outstanding policy issues related to Non-Federal Resource Participation and development of participating resource application process

4. Roles and Responsibilities

- 4.1 lists the EIM Entity's responsibilities
 - EIM Entity Scheduling Coordinator
 - Process applications for Participating Resources
 - Provide data for modeling and day to day operations
 - Take corrective actions if needed
 - Settle MO charges and payments to the EIM Entity

- 4.2 lists the Customers' responsibilities
 - Provide data to meet MO's requirements
 - Submit and update base schedules

5. Transmission Operations

- The EIM Entity provides real-time data for the transmission system and the interties
- The EIM Entity notifies the MO of any changes in capacity due to operational circumstances
- Outlines the method(s) by which the EIM Entity and/or Customers can make transmission available to the EIM

6. System Operations Under Normal and Emergency Conditions

- EIM Entities remain responsible for ensuring reliability in their BAAs
 - e.g., EIM Entities process e-tags, curtailments, and monitor and manage real time flows
- Outlines options for responding to contingencies and emergencies in EIM
- Requires the EIM Entity and all Customers to conform to Good Utility Practice

7. Outages

- Describes how EIM Entities deal with outages
- BPA is still reviewing how our current outage process aligns with CAISO requirements – this section is currently marked as "under review"

8. EIM Settlements and Billing

- Provides details on how EIM settlements and billing works – marked as "under review" due to outstanding policy decisions related to EIM Charge Code Allocation
- However, most of the details in this section will likely go in rates schedules

9. Compliance

- Lays out that Customers must comply with data requests from relevant authorities, rules of conduct for market participants and enforcement provisions

10. Market Contingencies

- Currently marked as "under review"
- Majority of language will need to go in rates
- 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 & possibly 11

Schedules

- 1A – new Schedule for EIM Administrative Charges
- 9 – added language to current Schedule 9 to define how Generator Imbalance Service works in the EIM and applicability to generators that are not BPA EIM Participating Resources

BPA is evaluating EIM Tariff language according to its guidelines

- Starting with PGE's Tariff as an industry standard baseline, BPA will differ from it if necessary for:
 - Legal obligations, authorities or responsibilities;
 - Maintain reliability and efficient operations;
 - Prevent significant harm or provide significant benefit; or
 - Align with or set industry best practice

Differences for Legal/Statutory Reasons

- Current examples include:
 - Removing references to FERC approval
 - Removing rates and rate-type language from the tariff because rates must be adopted in the rate case and memorialized in the rate schedules
 - Adjustments to language to reflect that BPA does not own or control federal resources

- The sections currently marked “under review” may also reflect differences for legal or statutory reasons

Differences for Reliability or Efficient Operations

- No current examples of this category, although it may come into play for the sections marked “under review”

Prevent Significant Harm or Provide Significant Benefit

- No current examples of this category, although it may come into play for the sections marked “under review”

Align with or Set Industry Best Practice

- Current examples include:
 - Adjusting citations to the MO's tariff for clarity
 - Aligning definitions with the MO's tariff
 - Editing instances of passive voice to clarify obligations
- There may be more instances of differences under this category in the sections marked “under review”

BP-22 RATE CASE KICKOFF

Agenda

- BP-22 Rate Principles
- Topics for BP-22
 - Power Topics
 - Transmission Topics
 - Agency Topics
 - Generation Inputs Topics
- Proposed Workshop Dates
- Proposed 7(i) Schedule
- Next Steps

BP-22 Rate Principles

- Full and timely cost recovery
- Lowest possible rates consistent with sound business principles
- Cost causation – fairly allocate costs to customers based on proportionate use
- Statutory requirement of equitable allocation
- Simplicity, understandability, public acceptance, and feasibility of application
- Avoid rate shock and maintain rate stability from rate period to rate period (e.g., magnitude of rates and rate design)

Power Topics for BP-22

- Standard workshop topics
 - Loads & Resources
 - Gas and Market Price Forecasts
 - Transfer Service
- Other workshop topics
 - 7(f) Rate Options
 - Secondary Revenue Forecast
 - EIM effect
 - Flexible spill
 - Treatment of CAISO EIM charge codes
 - Tier 2 Rates

Transmission Topics for BP-22

- Standard workshop topics
 - Rate Schedules
 - Segmentation
 - Sales
 - LGIA
 - Rate Modeling
- New workshop topics
 - EIM Charge Code Allocation Implementation
 - Cost Recovery of Losses through Transmission Rates

Agency Topics for BP-22

- Revenue Requirements
 - Regulatory Assets
 - Leverage Policy implementation
- Risk
 - Simplifying Risk Mechanism Triggers
 - Agency Treasury Payment Probability

Generation Inputs Topics for BP-22

- I. Pricing for transmission losses
- II. Balancing Service – capacity and energy
 - A. Reserves-based ACS rates: VERBS, DERBS, RFR
 - Balancing capacity reserve components (2 vs. 3)
 - Cost of reserve capacity
 - Unit cost
 - Pricing differentiation between the proposed components (regulation and non-regulation)
 - Capacity reserves forecast
 - Scheduling election options

Generation Inputs Topics for BP-22 (cont'd)

B. Energy/Generation Imbalance

- Rates
- Instructed/Uninstructed Imbalance Energy (IIE/UIE)
- Penalties and charges
 - Persistent Deviation (PD)
 - Intentional Deviation (ID)
 - Over/Under Scheduling Charges

C. Rate Schedule Design

- Timing with EIM Parallel Operations and EIM Entry

TC-22, BP-22 and EIM Phase III Workshops: Proposed Dates for Rate Topics

Date	Rate Topics
May 19 (T)	<ul style="list-style-type: none"> • <i>RHWM Process (pre-rate case Power process)</i> • Transmission: Segmentation
June 15-19	<ul style="list-style-type: none"> • <i>IPR (pre-rate case process)</i>
June 23 (T)	<ul style="list-style-type: none"> • Generation Inputs <ul style="list-style-type: none"> ○ Reserves-based ACS rates: VERBS, DERBS, RFR <ul style="list-style-type: none"> • See slide 101 (section II.A) for individual topics ○ Pricing Transmission Losses • Power Rates <ul style="list-style-type: none"> ○ 7(f) Rate Options • <i>RHWM Process (if needed)</i>

TC-22, BP-22 and EIM Phase III Workshops: Proposed Dates for Rate Topics (cont.)

Date	Rate Topics
July 28 (T)	<ul style="list-style-type: none"> • Generation Inputs <ul style="list-style-type: none"> ○ Energy/Generation Imbalance <ul style="list-style-type: none"> • See slide 102 (section II.B) for individual topics • Transmission Rates <ul style="list-style-type: none"> ○ Sales ○ LGIA ○ EIM Charge Code Implementation ○ Cost Recovery of Losses • Power Rates <ul style="list-style-type: none"> ○ Secondary Revenue Forecast ○ Tier 2 Rates ○ Treatment of EIM Charge Codes • Revenue Requirements <ul style="list-style-type: none"> ○ Regulatory Assets ○ Leverage Policy implementation • Risk

TC-22, BP-22 and EIM Phase III Workshops: Proposed Dates for Rate Topics (cont.)

Date	Rate Topics
Aug 4 (T)	<ul style="list-style-type: none"> • <i>RHWM Process (pre-rate case Power process)</i>
Aug 25 (T)	<ul style="list-style-type: none"> • Generation Inputs <ul style="list-style-type: none"> ○ Rate Schedule Design ○ Follow-up on other gen inputs topics • Transmission Rates <ul style="list-style-type: none"> ○ Rate Schedules ○ Rates Modeling ○ Follow-up: EIM Charge Code Implementation ○ Follow-up: Cost Recovery of Losses • Power Rates <ul style="list-style-type: none"> ○ Loads & Resources ○ Gas and Market Price Forecasts ○ Secondary Revenue Forecast ○ Transfer Service ○ Follow-up: Treatment of EIM Charge Codes
Sept	<ul style="list-style-type: none"> • TBD (if needed)

Meeting and workshop dates are subject to change. Please check the [BPA Event Calendar](#) for the most up-to-date information.

BP-22 Proposed 7(i) Schedule

- November 12 – Federal Register Notice Published
- November 19 – Prehearing Conference/BPA Direct Case

-
- Dec 9-10 – Clarification of BPA's Direct Case
 - Jan 26 – Parties File Direct Cases
 - Mar 9 – Litigants File Rebuttal Cases
 - Apr 8-9 – Cross-exam
 - April 27 – Initial Briefs
 - May 4 – Oral Argument
 - Jun 11 – Draft ROD
 - Jun 25 – Briefs on Exceptions
 - Jul 26 – Final ROD

Next Steps

By Tuesday, June 2:

- Please send any comments regarding the proposed BP-22 Rate Case workshop dates, other topics you would like to see addressed, and the proposed 7(i) schedule to the techforum@bpa.gov.

ISSUE #22: TRANSMISSION RATES - SEGMENTATION UPDATE

BP-22 Segmentation

- BPA is proposing no methodology changes or changes to segment definitions.
- The Segmentation Study assigns plant investment to segments based on their function.
- Segmented net plant is used to allocate capital related costs in the revenue requirement to specific segments.
- Existing plant in service is updated with actuals through FY 2019 for the BP-22 Initial Proposal.

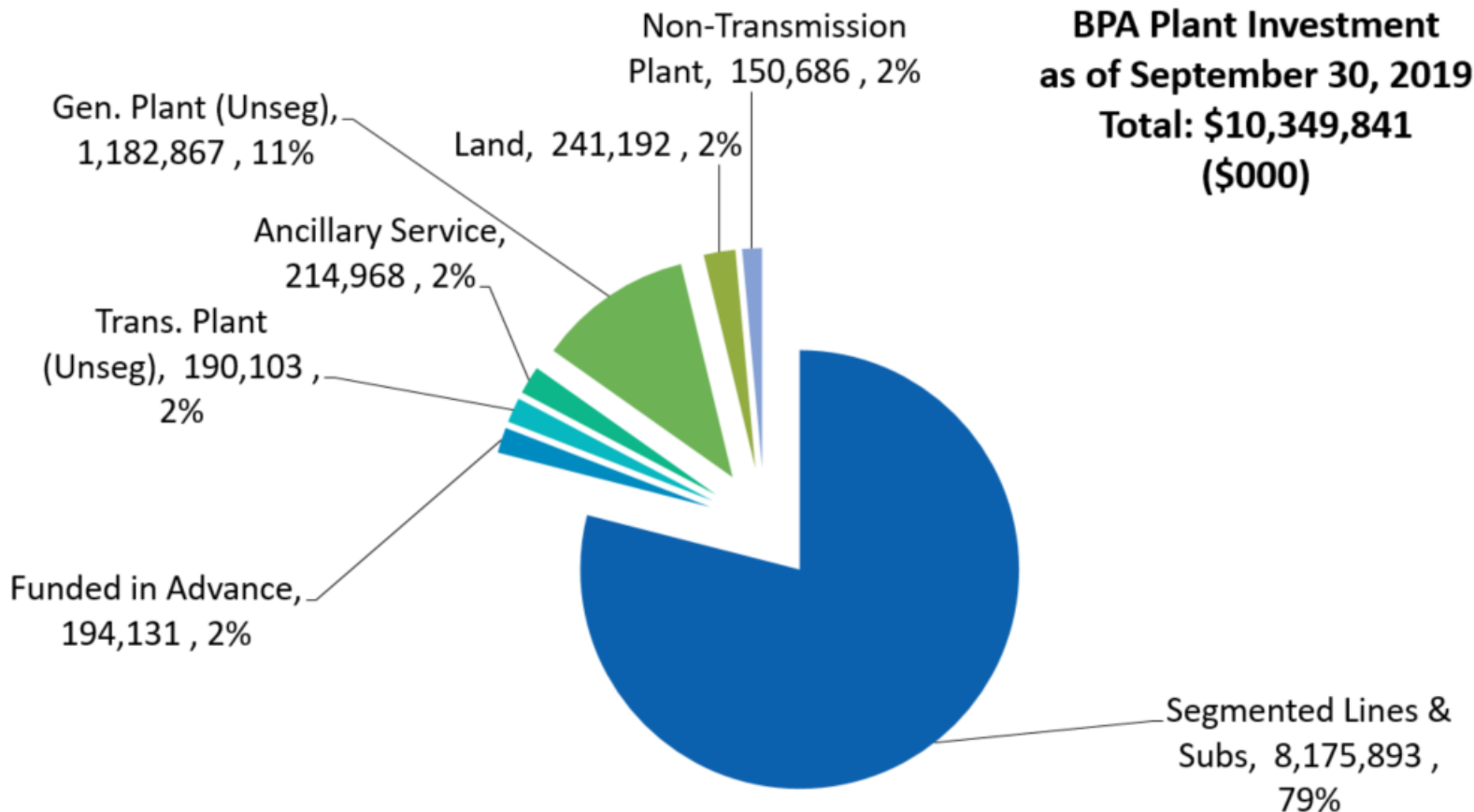
Description of Segments

- **Generation Integration** – Transmission facilities that connect Federal generation to BPA’s transmission facilities.
- **Network** – Core of BPA’s transmission system. Transmission facilities that transmit power from Federal and non-federal generation sources or interties to the load centers of BPA’s transmission customers in the PNW or other segments.
- **Southern Intertie** – Transmission facilities used primarily to transmit energy between the PNW and California.
- **Eastern Intertie** – Transmission facilities connecting network facilities in the PNW to Eastern Montana, primarily to transfer energy from Colstrip to the PNW (these facilities were constructed pursuant to the Montana Intertie Agreement).
- **Utility Delivery** – Low voltage transmission lines and substation equipment associated with supplying power directly to utility customers’ distribution systems (below 34.5 kV).
- **DSI Delivery** – Transformers and low-side switching equipment and protection equipment necessary to step down power to DSI customers at industrial voltages (6.9 or 13.8 kV).
- **Ancillary Service** – Communications and control equipment necessary for BPA to provide Scheduling, System Control and Dispatch (SCD) service.

Segments

Segments	Corresponding Rates
Network	PTP, NT, FPT
Utility Delivery	UDC
DSI Delivery	UFT
Southern Intertie	IS
Eastern Intertie	IE, IM, TGT
Generation Integration	Assigned to power rates
Ancillary Services	ACS

BP-22 Plant Investment Summary



Segmented Lines and Substations Investment

(\$000)

Plant Investment Through September 30, 2017 (BP20 Rate Case Workshop)								
A	B	C	D	E	F	G	H	I
	Generation Integration	Network	Southern Intertie	Eastern Intertie	Utility Delivery	DSI Delivery	Segmented Total	Ancillary Services
Stations	100,634	3,269,967	803,783	28,552	14,707	8,581	4,226,223	
Lines	30,872	3,146,175	303,141	94,846	318	-	3,575,351	
Sub Total	131,505	6,416,142	1,106,924	123,398	15,024	8,581	7,801,574	212,601
% of Segmented Total	1.7%	82.2%	14.2%	1.6%	0.2%	0.1%		
Plant Investment Through September 30, 2019 (BP-22 Initial Proposal)								
A	B	C	D	E	F	G	H	I
	Generation Integration	Network	Southern Intertie	Eastern Intertie	Utility Delivery	DSI Delivery	Segmented Total	Ancillary Services
Stations	109,852	3,610,939	811,657	28,355	17,706	8,637	4,587,146	
Lines	31,665	3,335,889	315,841	95,039	417	-	3,778,850	
Sub Total	141,517	6,946,828	1,127,498	123,394	18,122	8,637	8,365,996	214,968
% of Segmented Total	1.7%	83.0%	13.5%	1.5%	0.2%	0.1%		

Station and Line Totals Tie to Segmented Lines and Subs plus Unsegmented Transmission Plant from Prior Slide

Note: Due to BP-20 settlement, the BP-20 Rate Case Workshop plant investment amounts from FY 2017 are the most recent segmentation numbers for comparison purposes.

O&M Segmentation Methodology

- Consistent with prior O&M methodology
- Based on a 7 year historical average
- Direct O&M are historical O&M costs associated with a specific asset
 - The O & M is directly charged to the asset.
 - The O & M is then assigned to the different segments based on the segmented investments.
- Non-direct O&M are historical O&M costs not associated with a specific asset
 - These costs are allocated to Lines, Substations, and Metering stations in proportion to the direct O&M in each respective group
 - Transmission Line and Right-of-way Maintenance, and Vegetation Management (all non-direct) are allocated to Lines only

Segmented Historical O&M

(\$000)

Historical O&M FY2011-2017 (BP20 Rate Case Workshop)									
A	B	C	D	E	F	G	H	I	J
	Generation Integration	Network	Southern Intertie	Eastern Intertie	Utility Delivery	DSI Delivery	Segmented Total	Ancillary Services	Overhead
Stations	2,983	100,123	17,243	628	843	476	122,296		
Lines	471	46,265	2,454	1,915	15	-	51,120		
Sub Total	3,454	146,388	19,697	2,543	858	476	173,416	55,759	50,993
% of Segmented Total	2.0%	84.4%	11.4%	1.5%	0.5%	0.3%	100.0%		
Historical O&M FY2013-2019 (BP 22 Initial Proposal)									
A	B	C	D	E	F	G	H	I	J
	Generation Integration	Network	Southern Intertie	Eastern Intertie	Utility Delivery	DSI Delivery	Segmented Total	Ancillary Services	Overhead
Stations	3,384	106,436	18,507	793	990	534	130,645		
Lines	593	48,344	2,401	2,138	13	-	53,490		
Sub Total	3,978	154,780	20,908	2,932	1,004	534	184,135	61,403	55,655
% of Segmented Total	2.2%	84.1%	11.4%	1.6%	0.5%	0.3%	100.0%		

Note: Due to BP-20 settlement, the BP-20 Rate Case Workshop O&M average amounts from FY 2011 – FY 2017 are the most recent segmentation numbers for comparison purposes.

Segmentation – Future Plant in Service

- The Segmentation Study reflects historic plant in service through FY 2019.
- A future plant in service forecast will be used for FY 2020-23 in the Initial Proposal to project segmented net plant investment during the rate period.
 - The plant in service forecast will be based on proposed capital spending levels slated for discussion in the 2020 IPR process.

Next Steps

- The future plant in service projections will be shared a subsequent workshop, reflecting projected capital spending levels.
- The segmentation study will be updated for the BP-22 Final Proposal to reflect plant placed into service and retirements through FY 2020.

Next Steps

- Comment period
 - Customers should submit comments by June 2, 2020 to the techforum@bpa.gov

Summary of Customer Feedback

APPENDIX

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.

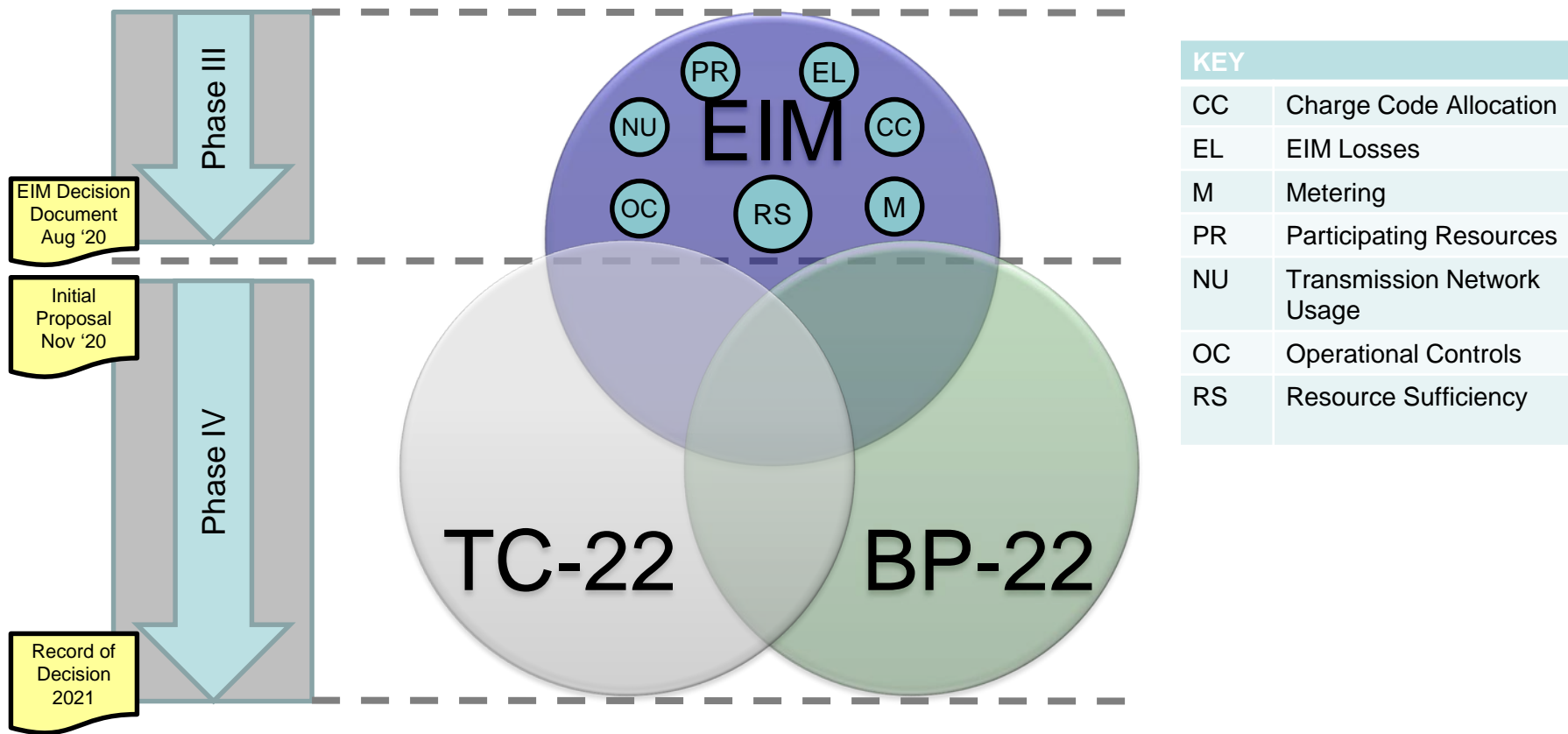
EIM Charge Code Allocation

APPENDIX

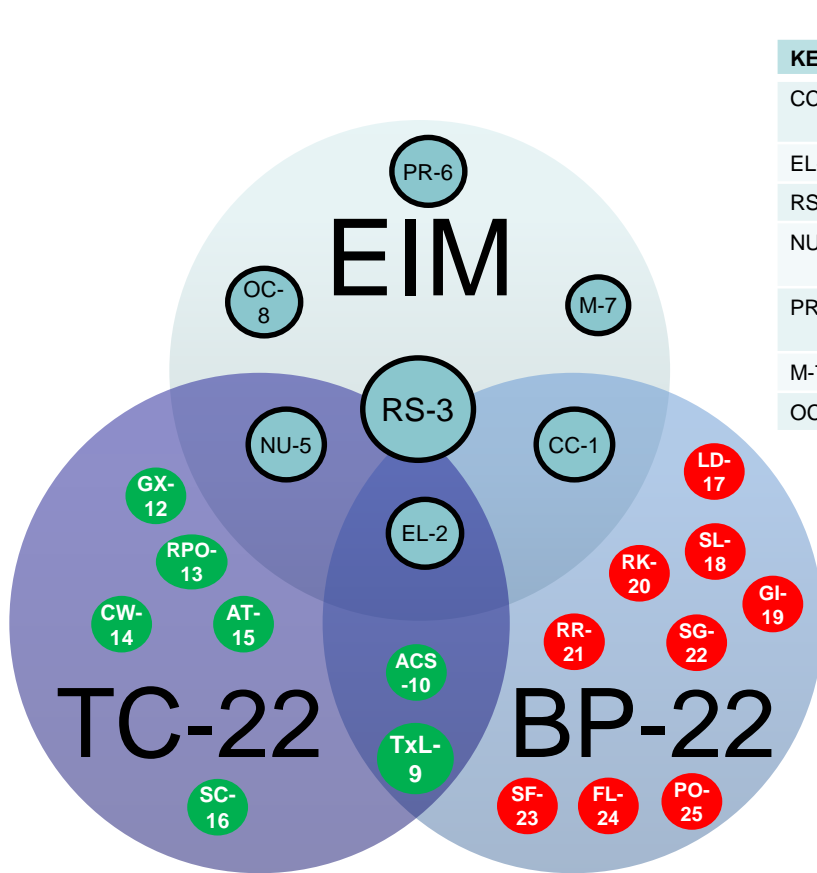
Customer Led Workshop Protocol

- Submit a workshop request no later than one week before the scheduled date (see slide 4 for dates).
- Requests must include a list of topics/issues you wish to cover if you are requesting Bonneville SME support.
- Discussions/workshops will only cover previously reviewed materials.
- Customers must inform BPA if A/V resources are required to include remote participants and/or present materials **through virtual meeting**.
- BPA will verify that it will staff for the requested topics within three business days via Tech Forum.

Coordination of EIM Issues for Phases III and IV



BP-22, TC-22 & EIM Integrated Scope



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

KEY	TC
TxL-9	Transmission Losses
ACS-10	Ancillary Services
GX-12	Generator Interconnection
RPO-13	Regional Planning
CW-14	Creditworthiness
AT-15	Agreement Templates
SC-16	Seller's Choice

KEY	BP
LD-17	Loads
SL-18	Sales
GI-19	Generator Interconnection
RK-20	Risk
RR-21	Revenue Requirements
SG-22	Segments
SF-23	Sale of Facilities
FL-24	Financial Leverage
PO-25	Power-only

EIM Issue Inter-Dependencies Identified

