

# **BP-20 Rate Case Workshop: Transmission Rates**

May 30, 2018

# Agenda

- Segmentation
- Reliability Services – Name Change
- Scheduling, System Control, and Dispatch (SCD)
- Transmission Rate Schedule Changes
- Next Steps

# Segmentation

# What is Segmentation?

- Segmentation is a categorization of BPA's transmission assets into groups (called segments) to develop allocation factors based on gross investment and historical operations and maintenance (O&M) expenses.
- These allocation factors are then used to assign the total transmission revenue requirement to the various segments.
- This results in the segmented revenue requirement that is used to calculate transmission rates.

# Segments

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

# 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.
- **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.



# BP-20 Segmentation Investment

- BPA is proposing no methodology changes from the BP-18 final proposal or segment definitions.
- The Segmentation Study assigns plant investment to segments based on their function.
- Existing plant in service is updated with actuals through FY 2017 for the BP-20 Initial Proposal.
  - The final proposal will be updated through FY 2018
- Future plant in service will be forecasted for FY 2018 – FY 2021 for the BP-20 Initial Proposal.

# Segmented Lines and Substations Investment (\$000)

Plant Investment Through September 30, 2016 (BP18 Final)								
A	B Generation <u>Integration</u>	C <u>Network</u>	D Southern <u>Intertie</u>	E Eastern <u>Intertie</u>	F Utility <u>Delivery</u>	G <u>DSI</u> <u>Delivery</u>	H Segmented <u>Total</u>	I Ancillary Services
Stations	92,969	3,111,799	784,841	28,412	13,383	8,297	4,039,701	
Lines	18,310	3,091,737	204,168	94,851	308	-	3,409,374	
Sub Total	111,279	6,203,536	989,009	123,264	13,691	8,297	7,449,074	185,654
% of Segmented Total	1.5%	83.3%	13.3%	1.7%	0.2%	0.1%		

Plant Investment Through September 30, 2017 (BP20 Initial Proposal)								
A	B Generation <u>Integration</u>	C <u>Network</u>	D Southern <u>Intertie</u>	E Eastern <u>Intertie</u>	F Utility <u>Delivery</u>	G <u>DSI</u> <u>Delivery</u>	H Segmented <u>Total</u>	I 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%	100.0%	



# O&M Segmentation Methodology

- Consistent with BP-18 Final Proposal 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

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Historical O&M FY2010-2016 (BP18 Final)									
A	B <u>Generation Integration</u>	C <u>Network</u>	D <u>Southern Intertie</u>	E <u>Eastern Intertie</u>	F <u>Utility Delivery</u>	G <u>DSI Delivery</u>	H <u>Segmented Total</u>	I Ancillary Services	I Overhead
Stations	2,822	95,923	16,064	593	788	491	116,681		
Lines	468	45,547	2,369	1,956	9	-	50,349		
<b>Sub Total</b>	<b>3,290</b>	<b>141,470</b>	<b>18,433</b>	<b>2,549</b>	<b>797</b>	<b>491</b>	<b>167,030</b>	<b>52,418</b>	<b>48,688</b>
<b>% of Segmented Total</b>	<b>2.0%</b>	<b>84.7%</b>	<b>11.0%</b>	<b>1.5%</b>	<b>0.5%</b>	<b>0.3%</b>	<b>100.0%</b>		

Historical O&M FY2011-2017 (BP20 Initial Proposal)									
A	B <u>Generation Integration</u>	C <u>Network</u>	D <u>Southern Intertie</u>	E <u>Eastern Intertie</u>	F <u>Utility Delivery</u>	G <u>DSI Delivery</u>	H <u>Segmented Total</u>	I Ancillary Services	I Overhead
Stations	2,983	100,123	17,243	628	843	476	122,296		
Lines	471	46,265	2,454	1,915	15		51,120		
<b>Sub Total</b>	<b>3,454</b>	<b>146,388</b>	<b>19,697</b>	<b>2,543</b>	<b>858</b>	<b>476</b>	<b>173,416</b>	<b>55,579</b>	<b>50,993</b>
<b>% of Segmented Total</b>	<b>2.0%</b>	<b>84.4%</b>	<b>11.4%</b>	<b>1.5%</b>	<b>0.5%</b>	<b>0.3%</b>	<b>100.0%</b>		

## Segmentation – Future Plant in Service

- The Segmentation Study and Revenue Requirement reflect historical plant in service through FY 2015.
- A future Plant in Service forecast is used for FY 2016-19 in the Initial Proposal to provide segmented plant investment during the rate period.  
**These will be updated in the June Workshop**
- Segmented plant is used to allocate capital related costs in the revenue requirement to specific segments.
- The Plant in Service forecast is based on initial capital spending levels currently being discussed in the 2016 IPR/CIR process, these levels are subject to change.  
(this is confusing)

# Future Plant in Service Forecast

- Consistent with past practices, the Final Proposal will be updated to reflect plant placed into service and retirements that occurred in FY 2018.  
**These will be updated in the June Workshop**
- The Plant in Service Forecast will also be updated to reflect any updates in proposed capital spending for FY 2017-19.

# Future Plant in Service

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	A	B	C	D	E	F	G	H
		<u>Generation Integration</u>	<u>Network</u>	<u>Southern Intertie</u>	<u>Eastern Intertie</u>	<u>Utility Delivery</u>	<u>DSI Delivery</u>	<u>Total</u>
<b>Stations</b>								
1 FY 2015		-	185,004	26,797	208	54	-	212,064
2 FY 2016		-	201,008	23,593	91	63	-	265,355
3 FY 2017		-	117,118	88,442	87	46	-	466,468
<b>Lines</b>								
4 FY 2015		-	147,123	1,762	-	-	-	148,886
5 FY 2016		-	192,584	1,750	-	-	-	184,339
6 FY 2017		-	119,102	34,330	-	-	-	164,038
<b>Lines &amp; Subs</b>								
7 FY 2015		-	332,127	28,560	208	54	-	360,950
8 FY 2016		-	424,192	25,347	91	63	-	449,694
9 FY 2017		-	307,620	322,753	87	46	-	630,506
<b>Other</b>								
		<u>Ancillary Services</u>	<u>General Plant</u>					
10 FY 2015		52,109	116,239					
11 FY 2016		64,789	118,691					
12 FY 2017		40,038	119,561					

These will be updated in the June Workshop

This table is from Final Proposal BP-16. Updated forecasts for FY 2016 – FY 2019 will be shared in July and finalized after the CIR/IPR concludes this summer.



# **Reliability Services (Name Change)**



# Background

- BP-16 BPA proposed and implemented the WECC and PEAK reliability charges.
- The WECC service rate recovers costs associated with NERC and WECC statutory reliability costs.
- The PEAK service rate recovers costs associated with the provision of Reliability Coordinator (RC) services.
- The WECC and PEAK assigns costs based on the Net Energy for Load (NEL) in each Balancing Authority.

# What BPA is Proposing

- BPA is proposing to change the name of the WECC and Peak charges.
- Regional Compliance Enforcement rate:
  - WECC may change its name from the Western Electricity Coordinating Council (WECC) to something more descriptive of its mandate, activities, and role in the Western Interconnection
- Reliability Coordinator rate:
  - BPA is in the process of evaluating the provider of Reliability Coordinator services to ensure the most reliable and cost effective solution available

# **Scheduling, System Control and Dispatch (SCD)**

# Background

- Scheduling, System Control, and Dispatch Service (SCD) is an Ancillary Service required to schedule the movement of power through, out of, within, or into a Control Area.
- Transmission customers must purchase this service from the control area.
- BPA has seven segments. One of the segments is Ancillary Services which includes SCD.
- SCD investment is allocated to segments based on the ratio of the sales forecast for each service which is required to pay SCD.
- The segmented revenue requirement is the amount that is used to recover costs.
  - Network-PTP, NT and IR
  - Southern Intertie-PTP
  - Montana Intertie-PTP

# Why is BPA Considering a Change?

- We are reviewing the rate design for rates and, where appropriate, we are looking to simplify rate design
- We see charging SCD once is consistent with industry standard and BPA strategy
- We have heard from customers that the SCD charge, as it is currently designed, is creating an additional hurdle rate

# What BPA is Proposing

- Proposal:
  - Create a rate design for the SCD charge that is simple, transparent, recovers costs and does not give customers the impression that the charge creates a hurdle rate.



# Objectives

- SCD rate is based on rate principles as presented on April 24, 2018
- SCD rate is consistent with the Transmission Business Model strategy and the Agency Strategic Plan.

# Possible Options

- **Alternative 1:** Status Quo – don't make any changes to the SCD rate design
- **Alternative 2:** Charge SCD only once and base the billing determinant on schedules (i.e. use a \$/MWh billing determinant)

# Alternative 1: Status Quo

- Pros:
  - No additional costs to implement
  - No cost shifts
- Cons:
  - Customers see the current rate design as a hurdle rate
  - Not consistent with industry standard to charge SCD once for multiple segments

## Alternative 2: SCD Based on Schedules

- Pros:
  - Closer to industry standard by charging SCD once instead of for each transmission segment
  - Customers may see this as less of a hurdle rate
  - May align costs to the true usage of the scheduling systems
- Cons:
  - Some cost shifts
  - There will be some (minimal) costs to implement

# **Transmission Rate Schedule Changes**

# Proposed Rate Schedule Change

- The NT Short Distance Discount (SDD) rate schedule currently allows for an SDD to be higher than the metered monthly load.
- The intent of the SDD was to give customers some adjustment to recognize the benefit when a customer is injecting power over the BPA system.
- There are times when the injection of power (customer peak load) is lower than the adjustment for SDD.
- BPA is proposing to limit the SDD to be no more than the power load.



# Next Steps

# Comment Period and Request for Alternatives

- **By June 13:**
  - Please submit comments on the proposed BP-20 Reliability Services name change
  - Please submit additional alternatives to the proposed BP-20 SCD rate design for us to evaluate
  - Please submit comments on the proposed BP-20 rate schedule change (NT SDD)
- Please submit all comments and alternatives to [techforum@bpa.gov](mailto:techforum@bpa.gov). Include a description of your comments in the subject line.

# Upcoming Workshop Topics

- **Reliability Services name change:** BPA will include the proposed changes in the draft rate schedules at the **June 27<sup>th</sup>** pre-rate case workshop for additional customer comment.
- **SCD rate design:** We plan to present the SCD rate impact and evaluation of alternatives using BP-18 data at the **July 18<sup>th</sup>** pre-rate case workshop. An additional customer comment period will be provided.
- The next BP-20 Rate Case Workshop is **June 14<sup>th</sup>**. Transmission rates topics will include:
  - Rate Schedule changes
  - Segmentation (update)
  - Load Forecasting

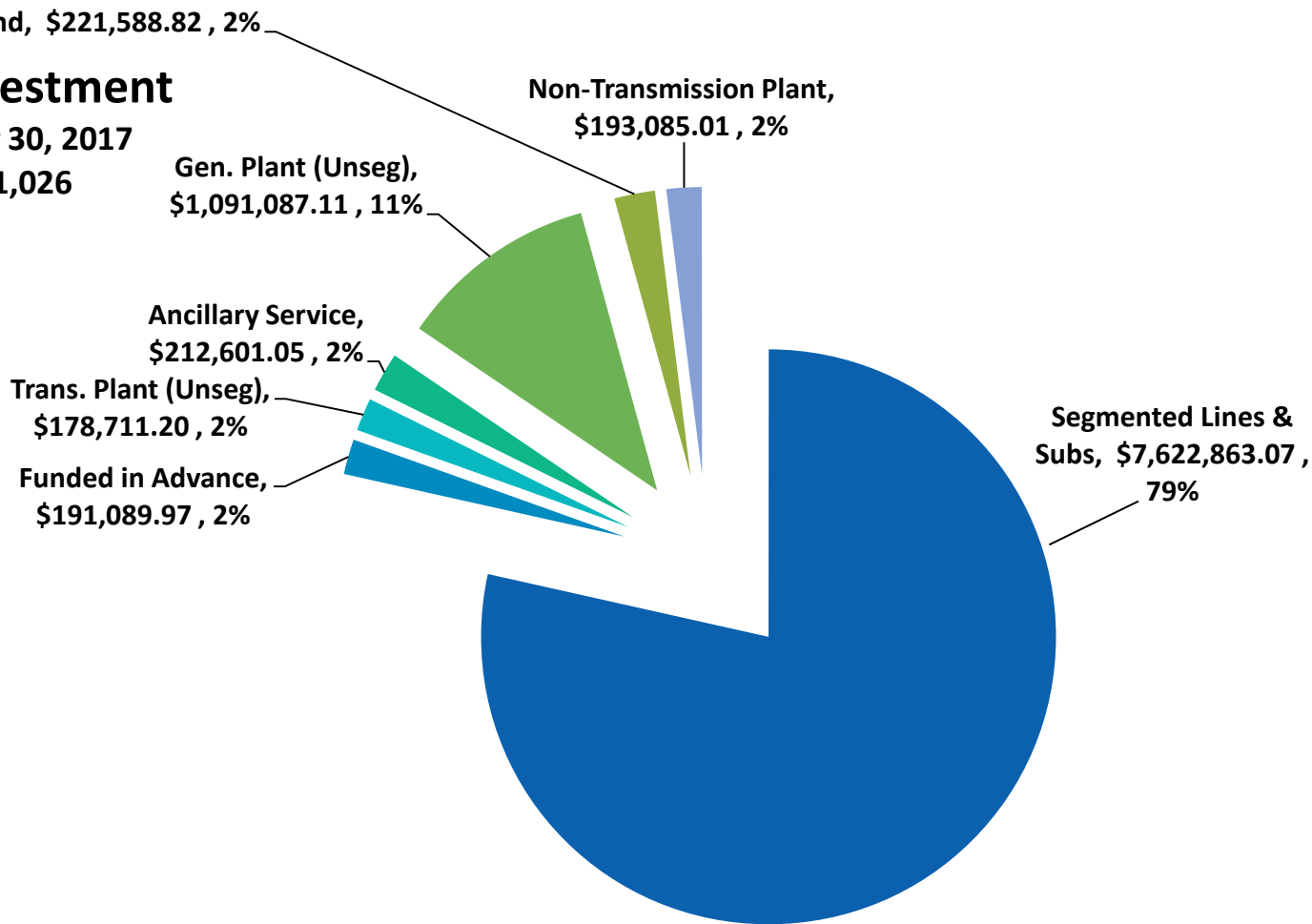
# Appendix

# BP-20 Plant Investment Summary

## BPA Plant Investment

as of September 30, 2017

Total: \$9,711,026  
(\$000)



# Future Customer Meetings

Date	BP-20 Rate Case Workshops	Other Meetings
May 31 (Th)		<ul style="list-style-type: none"> <li>• TC-20 Tariff Workshop</li> </ul>
June 14 (Th)	<ul style="list-style-type: none"> <li>• Transmission Rates               <ul style="list-style-type: none"> <li>○ Load Forecasting</li> <li>○ UIC</li> <li>○ Segmentation</li> <li>○ Rate Schedule Changes</li> </ul> </li> <li>• ACS Practices</li> </ul>	
June 18-21		<ul style="list-style-type: none"> <li>• 2018 IPR</li> </ul>
June 26 (T)		<ul style="list-style-type: none"> <li>• TC-20 Tariff Workshop</li> </ul>
June 27 (W)	<ul style="list-style-type: none"> <li>• Transmission Rates               <ul style="list-style-type: none"> <li>○ Reliability Services</li> <li>○ Rate Schedule Changes</li> <li>○ SCD</li> </ul> </li> <li>• Power Rates</li> </ul>	<ul style="list-style-type: none"> <li>• RHWM Process (tentative)</li> </ul>



# Future Customer Meetings, continued

Date	BP-20 Rate Case Workshops	Other Meetings
Jul 18 (W)	<ul style="list-style-type: none"> <li>• Transmission Rates               <ul style="list-style-type: none"> <li>○ LGIA</li> <li>○ Sales</li> <li>○ SCD staff proposal for initial proposal</li> </ul> </li> <li>• ACS Practices Workshop</li> </ul>	
July 23 (M)		<ul style="list-style-type: none"> <li>• TC-20 Tariff Workshop</li> </ul>
July 25 (W)	<ul style="list-style-type: none"> <li>• Revenue Requirements</li> <li>• Transmission Rates               <ul style="list-style-type: none"> <li>○ Rates Model</li> <li>○ Rate Schedule Changes</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• RHWM Process</li> </ul>
Aug 8 (W)	<ul style="list-style-type: none"> <li>• Risk</li> <li>• Power Rates</li> </ul>	

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