#### BEFORE THE PUBLIC UTILITY COMMISSION

#### **OF OREGON**

**UE 323** 

PACIFICORP, dba PACIFIC POWER,  CUB'S CROSS-EXAMINATION EXHIBITS  2018 Transition Adjustment Mechanism.	In the Matter of	)	
,	PACIFICORP, dba PACIFIC POWER,	)	CUD'S CDOSS EVAMINATION EVHIDITS
	2018 Transition Adjustment Mechanism.	)	CUB 3 CROSS-EAAWIINATION EARIBITS

The Oregon Citizens' Utility Board ("CUB") hereby submits its Cross Examination Exhibits in the above-captioned proceeding. Based on the record and discovery provided at this time, CUB intends to introduce the following Exhibits at the hearing:

Cross Examination Exhibit	Description
Exhibit 301	Confidential Data Response 2 from PAC to CUB
Exhibit 302	Confidential Data Response 4 from PAC to CUB
Exhibit 303	Confidential Data Response 9 from PAC to CUB
Exhibit 304	Data Response 10 from PAC to CUB
Exhibit 305	Confidential Data Response 11 from PAC to CUB
Exhibit 306	PacifiCorp's Net Power Cost Indicative Update for 2017

CUB also reserves the right to move for admission of any additional material provided in discovery after the time of this filing.

DATED this 24<sup>th</sup> day of August, 2017.

Michael P. Goetz, OSB #141465

Staff Attorney

Oregon Citizens' Utility Board

610 SW Broadway, Ste. 400

Portland, OR 97205

T. 503.227.1984 x 16

F. 503.224.2596

E. mike@oregoncub.org

# UE 323 CERTIFICATE OF SERVICE

I certify that on August 24, 2017, I served the non-confidential portions of the Oregon Citizens' Utility Board's cross examination exhibits on all parties to the service list for UE 323, via the Oregon Public Utility Commission's electronic filing system, and that I served the confidential portions of the filing on the following qualified individuals via Huddle and via United States Postal Service first class mail.

INDUSTRIAL	BRADLEY MULLINS	333 SW TAYLOR STE 400
CUSTOMERS OF	MOUNTAIN WEST	PORTLAND OR 97204
NORTHWEST	ANALYTICS	brmullins@mwanalytics.com
UTILITIES		
	JESSE E COWELL	333 SW TAYLOR SUITE 400
	DAVISON VAN CLEVE,	PORTLAND OR 97204
	PC	jec@dvclaw.com
CALPINE	GREGORY M. ADAMS	PO BOX 7218
SOLUTIONS		BOISE ID 83702
		greg@richardsonadams.com
	KEVIN HIGGINS	215 STATE ST - STE 200
		SALT LAKE CITY UT 84111-
		2322
		khiggins@energystrat.com
PACIFICORP UE	MATTHEW MCVEE	825 NE MULTNOMAH
323	PACIFICORP	PORTLAND OR 97232
		matthew.mcvee@pacificorp.com
	KATHERINE A	419 SW 11TH AVE., SUITE 400
	MCDOWELL	PORTLAND OR 97205
	MCDOWELL RACKNER	katherine@mcd-law.com
	& GIBSON PC	
SIERRA CLUB	TRAVIS RITCHIE	2101 WEBSTER ST., STE. 1300
	SIERRA CLUB	OAKLAND, CA 94612
	ENVIORNMENTAL	travis.ritchie@sierraclub.org
	LAW PROGRAM	
	ALEXA ZIMBALIST	2101 WEBSTER ST., STE. 1300
		OAKLAND, CA 94612
		alexa.zimbalist@sierraclub.org
STAFF UE 323	SOMMER MOSER	1162 COURT ST NE
	PUC STAFF -	SALEM OR 97301
	DEPARTMENT OF	sommer.moser@doj.state.or.us
	JUSTICE	
	GEORGE COMPTON	PO BOX 1088
	OPUC	SALEM OR 97308-1088
		george.compton@state.or.us
	SCOTT GIBBENS	201 HIGH ST SE
	OPUC	SALEM OR 97301

will P. St

Michael P. Goetz, OSB #141465 Staff Attorney Oregon Citizens' Utility Board 610 SW Broadway, Ste. 400 Portland, OR 97205 T. 503.227.1984 x 16 F. 503.224.2596 E. mike@oregoncub.org UE 323 / PacifiCorp July 10, 2017 CUB Data Request 2

# **CUB Data Request 2**

Please see PacifiCorp's Confidential Attachment CUB 1, in response to CUB DR 1. For each PURPA qualifying facility (QF) that the Company indicated would be delayed, please identify the total dollar amount that was forecast into NPC in the TAM filing. For each delayed QF, please also give a month-by-month breakdown of forecasted costs (i.e. the total dollar forecast amount broken down by month). Please consider this an ongoing request to be updated throughout this case.

# **Response to CUB Data Request 2**

Please refer to the Confidential Attachment CUB 2.

UE 323 / PacifiCorp July 19, 2017 CUB Data Request 2 – 1st Supplemental

# **CUB Data Request 2**

Please see PacifiCorp's Confidential Attachment CUB 1, in response to CUB DR 1. For each PURPA qualifying facility (QF) that the Company indicated would be delayed, please identify the total dollar amount that was forecast into NPC in the TAM filing. For each delayed QF, please also give a month-by-month breakdown of forecasted costs (i.e. the total dollar forecast amount broken down by month). Please consider this an ongoing request to be updated throughout this case.

# 1st Supplemental Response to CUB Data Request 2

Further to the Company's previous responses to CUB Data Request 2, the Company provides the following updated information based on the July 2017 Update / Reply Filing, submitted to the Public Utility Commission of Oregon (OPUC) on July 11, 2017:

Please refer to Confidential Attachment CUB 2 1st Supplemental.

UE 323 / PacifiCorp July 19, 2017 CUB Data Request 2 – 1st Revised

# **CUB Data Request 2**

Please see PacifiCorp's Confidential Attachment CUB 1, in response to CUB DR 1. For each PURPA qualifying facility (QF) that the Company indicated would be delayed, please identify the total dollar amount that was forecast into NPC in the TAM filing. For each delayed QF, please also give a month-by-month breakdown of forecasted costs (i.e. the total dollar forecast amount broken down by month). Please consider this an ongoing request to be updated throughout this case.

# 1<sup>st</sup> Revised Response to CUB Data Request 2

Further to the Company's response to CUB Data Request 2 dated July 10, 2017, the Company provides the following revised / corrected information:

The Company's original response incorrectly provided the requested data as total megawatt-hours (MWh), however the request was for total dollars (\$). This 1<sup>st</sup> Revised response replaces, in its entirety, the Company's original response.

Please refer to Confidential Attachment CUB 2 1st Revised.

Confidential CUB Exhibits 301 are confidential and were submitted to each pareceive confidential information pursuant to Order 16-128.	arty designated to

UE 323 / PacifiCorp July 21, 2017 CUB Data Request 4

# **CUB Data Request 4**

Please provide a spreadsheet that includes the following information for each month beginning in January 2016 through June 2017:

- (a) Number of QFs forecast for that month in final TAM forecast;
- (b) Actual number of QFs delivering power that month;
- (c) MWh of QFs forecast for that month in the final TAM forecast;
- (d) Actual MWh of OF delivered in that month;
- (e) Cost of QF forecast for that month in final TAM forecast;
- (f) Actual cost of QFs that delivered power in that month.

# **Response to CUB Data Request 4**

Please refer to Confidential Attachment CUB 4.

The Company currently has actual net power costs (NPC) data through May 2017. The Company will supplement this response with June 2017 data, when it becomes available.

UE 323 / PacifiCorp August 16, 2017 CUB Data Request 4 – 1st Supplemental

# **CUB Data Request 4**

Please provide a spreadsheet that includes the following information for each month beginning in January 2016 through June 2017:

- (a) Number of QFs forecast for that month in final TAM forecast;
- (b) Actual number of QFs delivering power that month;
- (c) MWh of QFs forecast for that month in the final TAM forecast;
- (d) Actual MWh of QF delivered in that month;
- (e) Cost of QF forecast for that month in final TAM forecast;
- (f) Actual cost of QFs that delivered power in that month.

# 1st Supplemental Response to CUB Data Request 4

Further to the Company's response to CUB Data Request 4 dated July 21, 2017, the Company provides the following supplemental information:

Please refer to Confidential Attachment CUB 4 1<sup>st</sup> Supplemental, which provides information for June 2017.

Confidential CUB Exhibits 302 are confidential and were submitted to each party designated to receive confidential information pursuant to Order 16-128.	0

UE 323 / PacifiCorp August 3, 2017 CUB Data Request 9

# **CUB Data Request 9**

See CUB/100/Jenks/8. For all eighteen QF projects delayed since the Company's final update in UE 307, please provide a monthly status update for each, as referenced in UE 323/PAC/400/Wilding/37, lines 17-18, from July 2016 through the commercial operation date or July 2017 (if the QF has not yet reached COD).

# **Response to CUB Data Request 9**

Please refer to Confidential Attachment CUB 9.

Confidential CUB Exhibit 303 is confidential and was submitted to each receive confidential information pursuant to Order 16-12	

UE 323 / PacifiCorp August 3, 2017 CUB Data Request 10

# **CUB Data Request 10**

UE 323/PAC/400/Wilding/37 referenced PacifiCorp's monitoring of the status of the generator interconnection process.

- (a) For each QF referenced in the above DR 9, please explain why monitoring the status of the generator interconnection process failed to identify that these eighteen QF projects were being delayed beyond their forecasted COD.
- (b) Please provide any memos, emails or other written materials that were developed through this monitoring process associated with these eighteen projects.

# **Response to CUB Data Request 10**

(a) The Company deems that qualifying facility (QF) projects that are expected to achieve commercial operation during the forecast period based on the commercial operation date (COD) identified in the executed power purchase agreement (PPA), informed by continual discussions with each QF. QFs provide updates on agreed milestones to assist in the evaluation of their ability to meet the COD identified in the PPA. Additionally, QFs will inform the Company of any significant issue. At the time of filing, the Company uses the best available information to forecast the CODs. The QFs were delayed based on additional information the Company received from the counterparties after the final transition adjustment mechanism (TAM) updates.

Monitoring the status of the generation interconnection process is one of several resources the Company relies on to forecast the expected commercial operational data.

Under PacifiCorp's Open Access Transmission Tariff (OATT) and the Federal Energy Regulatory Commissions standards of conduct requirements, PacifiCorp merchant only has access to publicly available reports posted to the Open Access Same-Time Information System (OASIS) or project information provided by the QF. These interconnection studies are reviewed by PacifiCorp merchant once they are posted to OASIS; however, the final interconnection construction schedule may change over time if there are restudies that occur at the request of the QF or PacifiCorp transmission. PacifiCorp merchant may not be aware of them if the QF does not specifically inform PacifiCorp merchant.

The Oregon standard QF PPA does not contain a contractual obligation on the QF to update PacifiCorp merchant on the status of its forecasted COD, therefore PacifiCorp merchant relies on regular monthly contact with the QF to understand the project status and schedule. Generally, in the early stages of development, there is minimal change to schedules, but as the QF begins financing, its schedule firms up and milestones for construction, etc. are established and communicated with PacifiCorp

Despite PacifiCorp's diligent efforts, certain information protected from disclosure by the attorney-client privilege or other applicable privileges or law may have been included in its responses to these data requests. PacifiCorp did not intend to waive any applicable privileges or rights by the inadvertent disclosure of protected information, and PacifiCorp reserves its right to request the return or destruction of any privileged or protected materials that may have been inadvertently disclosed. Please inform PacifiCorp immediately if you become aware of any inadvertently disclosed information.

UE 323 / PacifiCorp August 3, 2017 CUB Data Request 10

merchant.

(b) PacifiCorp does not maintain any log of monitoring the QF's interconnection process. It is one method used to identify progress of a QF project.

UE 323 / PacifiCorp August 17, 2017 CUB Data Request 11

# **CUB Data Request 11**

According to UE 323 – PAC/400/Wilding/400/34 at lines 17-18, QF "counterparties provide project status updates on a monthly basis that document progress toward milestones and the commercial operation date." For the eighteen QF projects that were identified as delayed in CUB's testimony (*see* CUB/100/Jenks/8) and the subject of CUB DR 9, please provide copies of the monthly status updates provided to PacifiCorp by the counterparties. Rather than providing a summary of monthly updates, please provide the updates themselves.

# **Response to CUB Data Request 11**

The Company objects to this request as overly broad and not reasonably calculated to lead to the discovery of admissible evidence. Without waiving these objections, the Company responds as follows:

The standard offer Oregon qualifying facility (QF) power purchase agreement (PPA) does not contain language that requires the QF to deliver a monthly progress report like the Company's other jurisdictions require, therefore the written communication is irregular and generally at the request of PacifiCorp. Note: the standard offer Oregon QF PPA of this vintage does not allow termination of the contract if the commercial operation date (COD) is missed so there is limited enforcement available to the Company. Many of the updates have been provided verbally in telephone calls with the developer.

Please refer to Confidential Attachment CUB 11 for copies of all available written correspondence. Note: external and internal emails are not routinely saved but are automatically deleted in the normal course of business after 100 days unless deliberately saved by a user. PacifiCorp conducted an internal review of email communications related to QF PPA developer updates.

Confidential C	UB Exhibit 305 is confidential and receive confidential information	l was submitted to each party desig	nated to
	receive confidential information	pursuant to Order 10 120.	



825 NE Multnomah, Suite 2000 Portland, Oregon 97232

November 8, 2016

#### VIA ELECTRONIC FILING

Public Utility Commission of Oregon 201 High Street SE, Suite 100 Salem, OR 97301-3389

RE: Docket UE 307—2017 Transition Adjustment Mechanism – Net Power Cost Indicative Update for 2017

PacifiCorp d/b/a Pacific Power (PacifiCorp or Company) encloses for filing the updated 2017 net power cost forecast for posting indicative transition adjustments. This filing is based on Order No. 16-418, granting the Company's Transition Adjustment Mechanism (TAM) application, as adjusted for avian curtailments, and subject to a final update. This filing indicates a 2017 net power cost forecast of \$1,463.6 million on a total company basis. Based on this indicative forecast, Oregon-allocated net power costs are \$353.0 million. This is a decrease of approximately \$1.7 million (Oregon-allocated) from the August Update. In support of this filing, the following exhibits are attached:

- Exhibit A Summary of updates since the August Update filing and impacts on net power costs.
- Exhibit B Description of updates to net power costs and other TAM filing elements.
- Exhibit C Attestation of Joseph Hoerner, in accordance with paragraph 13 of the Stipulation adopted by Order No. 10-363 (Docket UE 216) and paragraph 15 of the Stipulation adopted by Order No. 14-331 (Docket UE 287).
- Exhibit D Updated Oregon allocation of net power costs.
- Exhibit E Copy of the indicative transition adjustments and Schedule 201 rates posted on the Company's website November 8, 2016.

The Company has posted to Huddle the net power cost GRID project, report, and workpapers supporting this filing, as required by the TAM Guidelines. The confidential material is provided subject to the protective order issued in this proceeding.

Please direct questions about this filing to Natasha Siores at (503) 813-6583.

Sincerely,

R. Bryce Dalley  $\angle$ 

Vice President, Regulation

<sup>&</sup>lt;sup>1</sup> In the Matter of PacifiCorp, dba Pacific Power, 2017 Transition Adjustment Mechanism, Docket No. UE 307, Order No. 16-418 (Oct. 27, 2016).

#### CERTIFICATE OF SERVICE

I certify that I served a true and correct copy of PacifiCorp's Net Power Cost Indicative Update for 2017 in Docket UE 307 on the parties listed below via e-mail and Huddle in compliance with OAR 860-001-0180.

#### **UE 307**

OPUC Dockets Citizens' Utility Board of Oregon 610 Broadway, Suite 400 Portland, OR 97205 dockets@oregoncub.org

Robert Jenks (C) (HC) Citizens' Utility Board of Oregon 610 Broadway, Suite 400 Portland, OR 97205 bob@oregoncub.org

Tyler C Pepple (C) (HC) Davison Van Cleve PC 333 SW Taylor, Suite 400 Portland, OR 97204 tcp@dvclaw.com

Gregory M. Adams (C)
Richardson Adams, PLLC
PO Box 7218
Boise, ID 83702
greg@richardsonadams.com

Kevin Higgins (C)
Energy Strategies LLC
215 State Street, Suite 200
Salt Lake City, UT 84111-2322
Khiggins@energystrat.com

Katherine A McDowell (C) (HC) McDowell Rackner & Gibson PC 419 SW 11<sup>th</sup> Avenue, Suite 400 Portland, OR 97205 Katherine@mcd-law.com Michael Goetz (C) (HC) Citizens' Utility Board of Oregon 610 Broadway, Suite 400 Portland, OR 97205 mike@oregoncub.org

Bradley Mullins (C) Mountain West Analytics 333 SW Taylor, Suite 400 Portland, OR 97204 brmullins@mwanalytics.com

S. Bradley Van Cleve (C) Davison Van Cleve PC 333 SW Taylor, Suite 400 Portland, OR 97204 bvc@dvclaw.com

Greg Bass
Noble Americas Energy Solutions LLC
401 West A Street, Suite 500
San Diego, CA 92101
gbass@noblesolutions.com

Oregon Dockets
Pacific Power
825 NE Multnomah St, Suite 2000
Portland, OR 97232
oregondockets@pacificorp.com

Matthew McVee (C) (HC)
Pacific Power
825 NE Multnomah Street, Suite 1800
Portland, OR 97232
matthew.mcvee@pacificorp.com

John Crider (C) (HC) Public Utility Commission of Oregon PO Box 1088 Salem, OR 97308-1088 john.crider@state.or.us

Michael T. Weirich (C) (HC) PUC Staff – Department of Justice Business Activities Section 1162 Court Street NE Salem, OR 97301-4096 Michael.weirich@state.or.us Sommer Moser (C) (HC) PUC Staff – Department of Justice 1162 Court Street NE Salem, OR 97301 sommer.moser@doj.state.or.us

Dated this 8th day of November 2016.

Supervisor, Regulatory Operations

# Exhibit A

Summary of Updates Since the August Update Filing and Impacts on Net Power Costs

Oregon TAM 2017 (April 2016 Initial Filing)	NPC (\$) = \$/MWh =	1,566,031,929 25.86
Oregon TAM 2016 (August 2016 Update Filing)	NPC (\$) =	1,553,390,530
	\$/MWh =	25.65

	Impact (\$)	NPC (\$)
Commission Order	T5 8:5:87%	
A01 - Remove NPC Impact of Avian Curtailment	(262,552)	
Updates		
U01 - Pipeline Updates	440,348	
U02 - QF Contract Status	(1,239,862)	
U03 - Mid Columbia Contracts Updates	(121,583)	
U04 - Gem State Contract	319,236	
U05 - Tri-State Updates	82,784	
U06 - EIM Benefits	1,530,213	
U07 - Official Forward Price Curve and Short Term Firm Transactions	(7,608,959)	
Total Updates =	(6,860,376)	
System balancing impact of all adjustments	166,773	
Total Change from August 2016 Update Filing	(6,693,603)	
Oregon TAM 2017 (November Indicative 2016 Filing)	NPC (\$) =	1,546,696,927
	\$/MWh =	25.54

# **EXHIBIT B**

November 2016 Oregon Transition Adjustment Mechanism (TAM) Indicative Update, Update Explanations

#### Exhibit B

# November 2016 Oregon Transition Adjustment Mechanism (TAM) Indicative Update Update Explanations

# **Updates to Net Power Costs**

#### Ordered Adjustment 1 — Remove Avian Curtailment

The Oregon Public Utility Commission order on October 27, 2016, required the removal of lost energy from avian protection curtailment. The impact of this adjustment decreases net power cost by approximately \$65,000 on an Oregon allocated basis.

# **Update 1 — Gas Pipeline Tariff Updates**

This update incorporates Gas Transmission Northwest updated rates for Hermiston. This update increases net power costs by approximately \$440,000 on a total-company basis. *Supporting document is at:* 

U01 GTN Gas Transmission Capacity Release Chevron to PacifiCorp dtd 8-1-16

# **Update 2 - QF Contract Updates**

The Company has incorporated the following QF contract changes (*Supporting documents are listed in italics*):

- Incorporated the 2017 pricing from the executed contract with Chevron Wind QF, Kennecott Refinery QF, Kennecott Smelter QF, Tesoro QF and Thayn Hydro QF.
  - U02 Chevron USA Inc 6.29.16 Casper Wind Project QF PPA 7.1.16-6.30-18 WY SCH 38 CONF
  - U02 Kennecott Refinery 9-23-16 Non-Firm QF PPA 2017 -UT CONF U02 Kennecott Smelter 9-23-16 Non-Firm QF PPA 2017 - UT CONF U02 Tesoro Refining 9-23-16 Non-Firm QF PPA 2017 - UT CONF U02 Thayn Hydro 9-10-16 OF PPA effective 1-1-16 UT SCH 37 NON CONF
- Added new small qualifying facilities:
  - Surprise Valley QF a 3.7MW project in Oregon, with an online date of 09/01/2016. U02 Surprise Valley 8.15.16 QF PPA OR SCH 37 NON CONF
  - O Tooele Army Depot QF a 3.2MW project in Utah, with an online date of 09/01/2016. *U02 Tooele Army Depot 5-10-16 QF PPA and 9-16-16Addendum 1 UT SCH 37 NON CONF*
- Based on status updates provided by the project developer, several projects expected online dates have been postponed:

	August Update	November Indicatvie
NorWest Energy 9 LLC (Pendleton)	11/30/2016	7/31/2018
OR Solar 2 LLC - Agate Bay	12/1/2016	7/30/2017
OR Solar 3 LLC - Turkey Hill	12/1/2016	3/15/2017
OR Solar 5 LLC - Merrill	12/1/2016	3/30/2017
OR Solar 6 LLC - Lakeview	12/1/2016	3/24/2017
OR Solar 7 LLC - Jacksonville	12/1/2016	7/30/2017
OR Solar 8 LLC - Dairy	12/1/2016	12/31/2018

#### Exhibit B

This update decreases total-company net power costs by approximately \$1.2 million.

# **Update 3.1 – Douglas Wells Proforma Update**

Douglas PUD provided its preliminary estimate for the FY2017 Wells project cost on August 22, 2016. This update increases total-company net power costs by approximately \$51,000. Supporting documents: U03 Douglas\_PUD\_8-22-17\_2017\_Wells\_Budget\_Update\_Endur\_20625[1]

# **Update 3.2 – Grant Priest Rapids and Wanapum Proforma Update**

Grant PUD provided its preliminary estimate for the 2017 Priest Rapids project cost on September 6, 2016. This update decreases total-company net power costs by approximately \$173,000. Supporting documents: U03 Grand\_PUD\_Prelim\_2017\_Priest-Wanapum\_Proforma\_dtd\_9-10-16[1]

# **Update 4 – Gem State Budget**

Idaho Falls provided the Gem State operating budget on September 8, 2016, for the fiscal year beginning October 1, 2016. This update increases total-company net power costs by approximately \$320,000. *Supporting document: U04 Idaho\_Falls\_\_9-8-*

16\_Gem\_State\_Project\_Final\_Operating\_Budget\_for\_FY\_2017[1]

# **Update 5 – Tri-State Purchase Contract Energy and Capacity Prices**

This update reflects new capacity and energy rates for the Tri-State Generation and Transmission contract, per communication from Tri-State dated October 13, 2016. The Company also elected the capacity factor as 50 percent. This contract increases net power costs by approximately \$83,000 on a total-company basis. Supporting document: U05 Tri-State\_Corr\_10-18-

16\_Capacity\_and\_Energy\_Rates\_for\_2017\_plus\_Budget\_Endur\_20132[1] U05 Tri-State\_8-4-16\_Capacity\_Factor\_Ltr\_Election\_50%\_for\_2017[1]

#### **Update 6 – EIM Results through August 2016**

This update incorporates EIM benefit results from June through August 2016 in the forecasted benefits for EIM inter-regional imports and exports, as well as flexibility reserve diversity. This update increases total-company net power costs by approximately \$1.5 million. Supporting calculations are provided in the Company's workpapers.

# **Update 7 – October 31, 2016 Official Forward Price Curve and November 1, 2016 Short-Term Firm Transactions**

This update incorporates the Company's official forward price curves as of October 31, 2016, and new wholesale short term firm transactions for electricity and natural gas, both physical and financial transactions, through November 1, 2016. The impact of this update decreases net power costs by approximately \$7.6 million on a total-company basis.

Supporting document: NovInd Cum ORTAM17\_STF (161031) NOV16 CONF

UE 323 / PacifiCorp August 17, 2017 CUB Data Request 11

# **CUB Data Request 11**

According to UE 323 – PAC/400/Wilding/400/34 at lines 17-18, QF "counterparties provide project status updates on a monthly basis that document progress toward milestones and the commercial operation date." For the eighteen QF projects that were identified as delayed in CUB's testimony (*see* CUB/100/Jenks/8) and the subject of CUB DR 9, please provide copies of the monthly status updates provided to PacifiCorp by the counterparties. Rather than providing a summary of monthly updates, please provide the updates themselves.

# **Response to CUB Data Request 11**

The Company objects to this request as overly broad and not reasonably calculated to lead to the discovery of admissible evidence. Without waiving these objections, the Company responds as follows:

The standard offer Oregon qualifying facility (QF) power purchase agreement (PPA) does not contain language that requires the QF to deliver a monthly progress report like the Company's other jurisdictions require, therefore the written communication is irregular and generally at the request of PacifiCorp. Note: the standard offer Oregon QF PPA of this vintage does not allow termination of the contract if the commercial operation date (COD) is missed so there is limited enforcement available to the Company. Many of the updates have been provided verbally in telephone calls with the developer.

Please refer to Confidential Attachment CUB 11 for copies of all available written correspondence. Note: external and internal emails are not routinely saved but are automatically deleted in the normal course of business after 100 days unless deliberately saved by a user. PacifiCorp conducted an internal review of email communications related to QF PPA developer updates.

Page 9

# System balancing impact of all adjustments

This update recalculates net power costs based on the inclusion of the correction and updates 1 through 7, including the screening of gas-fired units. The combined impact of all updates decreases net power costs by approximately \$6.7 million on a total-company basis.

# **Oregon Situs Solar Projects**

This update incorporates the Company's official forward price curves as of October 31, 2016. The impact of this update increases net power costs by approximately \$4,000 on an Oregon situs basis.

# **Updates to Non-Net Power Cost Items included in the TAM:**

Please see page 1 of Exhibit D, lines 38 and 39 for the changes in the following TAM elements as described below.

#### Non-NPC EIM Costs

This update reflects a reduction in operations and non-NPC administrative costs. The impact of this update reduces the total TAM filing by approximately \$76,000 on an Oregon allocated basis.

# **Production Tax Credits**

Production tax credits have been updated to reflect the change in production of the generating plants impacted by the removal of the avian curtailment adjustment. The impact of this update decreases the total TAM filing by approximately \$131,000 on an Oregon allocated basis.

# **Exhibit C**

Attestation of Joseph Hoerner, In Accordance with Paragraph 13 of the Stipulation Adopted by Order No. 10-363 (Docket UE 216) and Paragraph 15 of the Stipulation Adopted by Order No. 14-331 (Docket UE 287)

# BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

**UE 307** 

	In the Matter	of	
	PACIFICOR	P d/b/a PACIFIC POWER,	ATTESTATION OF JOSEPH P. HOERNER
	2017 Transiti	on Adjustment Mechanism.	
1 2 3	STATE OF C	Ć	
4	I, JOS	EPH P. HOERNER, being first	duly sworn on oath, depose and say:
5	1.	My full name is Joseph P. Hoe	rner. I am employed by PacifiCorp. My
6		present position is Vice Preside	ent, Energy Supply Management, for
7		PacifiCorp.	
8	2.	I am making this attestation in	compliance with Paragraph 13 of the
9		stipulation adopted by the Publ	ic Utility Commission of Oregon in Order
10		No. 10-363 in docket UE 216 c	on September 16, 2010, and Paragraph 15 of the
11		stipulation adopted by the Com	amission in Order No. 14-331 on October 1,
12		2014.	
13	3.	I understand that this attestation	n will be filed concurrently with the Indicative
14		Filing of the Company's net po	ower costs (NPC) on November 8, 2016.
15	4.	I attest that all NPC contracts (a	a) executed before the contract lockdown date
16		of October 31, 2016, and (b) in	cluded in the 2017 TAM rate effective period,
17		are reflected in the Indicative F	iling.

1	5. I attest that for the executed power purchase agreements with new QFs
2	included in the 2017 TAM, PacifiCorp has a commercially reasonable good
3	faith belief that these QFs will reach commercial operation during the rate
4	effective period based on the information known to PacifiCorp as of the
5	contract lockdown date of October 31, 2016.
6	I declare under penalty of perjury under the laws of the state of Oregon that the
7	foregoing is true and correct based on my information and belief as of the date of this
8	attestation.
9	SIGNED this: 7th day of November, 2016, at Portland, Oregon
10	Signed: Joseph P Har
11	SUBSCRIBED AND SWORN to before me this 1th day of November 2016.
12	Hotog Deas
13 14	OFFICIAL STAMP PATRICIA ANN DEAS NOTARY PUBLIC-OREGON COMMISSION NO. 937208 MY COMMISSION EXPIRES MARCH 12, 2019  NOTARY PUBLIC-OREGON COMMISSION NO. 937208

# **Exhibit D**

Updated Oregon Allocation of Net Power Costs

		date
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ifiCorp	2017	cativ
Бас	Շ	pd

Indicativ	Indicative Update			Total Company	ıbanv						Oregon Allocated	located	
Line no		ACCT.	UE-296 Final TAM CY 2016	TAM CY 2017 - Initial Filing	rAM 17 - Reply odate	TAM CY 2017 - Indicative Upate	Factor	Factors CY 2016	Factors CY 2017	UE-296 Final TAM CY 2016	TAM CY 2017 - ( Initial Filing	ιΜ ′ - Reply late	TAM CY 2017 - Indicative Upate
	Sales for Resale Existing Firm PPL	447	14,551,883	12,491,680	14,235,193	13,987,975	90	25.464%	25.230%	3,705,447	3,151,693	3,591,587	3,529,213
w 4 π	Existing Firm UPL Post-Merger Firm	444 744	308,215,401	264,081,138	354,617,969	386,003,768	ა დ ი ე	25.464% 25.464%	25.230% 25.230% 23.757%	78,483,023	- 66,628,559	89,471,306	97,390,049
-	Total Sales for Resale	Ì	322,767,283	276,572,818	368,853,162	399,991,744	4	0,470	8 22.53	82,188,470	69,780,252	93,062,893	100,919,262
<b>-</b> 8	Purchased Power												
ი 🗧	Existing Firm Demand PPL	555 555	5,460,531 25,957,591	5,396,826	4,979,885	5,034,013	დ <b>წ</b>	25.464%	25.230%	1,390,453	1,361,637	1,256,442	1,270,098
5 = 9	Existing Firm Energy	555	33,163,822	31,518,350	30,712,777	31,159,451	S S G	24.074%	23.757%	7,983,987	7,487,882	7,296,500	7,402,618
2 5	Post-merger Firm Secondary Purchases	555 555	539,019,217	550,503,265	601,586,184	640,937,870	S S	25.464% 24.074%	25.230% 23.757%	137,254,198	138,893,825	151,782,217	161,710,780 -
4 7	Other Generation Expense  Total Purchased Power	222	6,783,968	7,635,782 618,427,794	7,546,940	7,516,842	SG	25.464%	25.230%	1,727,449	1,926,534	1,904,118	1,896,524
		•							ļ				
	wneeling Expense Existing Firm PPL	292	21,008,517	20,923,037	20,923,037	20,923,037	SG	25.464%	25.230%	5,349,544	5,278,953	5,278,953	5,278,953
19	Existing Firm UPL	565	, 200	, 00 101	, 00	. 000	0 0 0	25.464%	25.230%	' 000	, 00	, (	, 00
2 2	Post-merger Firm Non-Firm	565 565	119,121,361 8,447,062	7,680,770	7,707,729	7,700,186	S S	25.464% 24.074%	25.230% 23.757%	30,332,698 2,033,579	1,824,737	29,504,856 1,831,142	29,504,856 1,829,350
•	Total Wheeling Expense	. 1	148,576,940	146,008,198	145,572,752	145,565,209				37,715,820	36,725,212	36,614,951	36,613,159
	Fuel Expense												
. 52	Fuel Consumed - Coal	501	684,036,958	717,322,134	764,589,286	752,343,875	SE	24.074%	23.757%	164,677,719	170,415,756	181,645,114	178,735,946
25 27 24	Fuel Consumed - Coal (Cholla)	50.1	39,725,288	54,710,604	54,030,506 2.489.125	51,906,272	у с п п	24.074%	23.757%	9,563,620	12,997,715	12,836,143	12,331,484
78 78	Natural Gas Consumed	547	349,178,912	296,984,718	279,921,635	279,033,987	S S	24.074%	23.757%	84,062,690	70,555,295	66,501,582	66,290,702
58	Simple Cycle Comb. Turbines	547	3,229,791	2,464,889	2,637,534	2,352,039	S S	24.074%	23.757%	777,552	585,589	626,605	558,779
	Steam from Other Sources  Total Fuel Expense	503	4,836,760 1,084,874,883	4,465,238 1,078,168,755	1,108,084,977	4,416,891 1,092,715,024	N N	24.074%	23.757%	1,164,420 261,177,000	1,060,816	1,049,330	1,049,330
32 33	Net Power Cost (Per GRID)		1,521,069,669	1,566,031,929	1,553,390,530	1,546,696,927				371,670,199	378,654,929	375,036,229	373,567,359
38 32	Oregon Situs Solar Projects  Total NPC Net of Adjustments	1 1	515,121 1,521,584,790	536,598 1,566,568,527	471,321 1,553,861,851	475,201 1,547,172,128	OR	100.000%	100.000%	515,121 372,185,320	536,598 379,191,527	471,321 375,507,550	475,201 374,042,560
	Non-NPC EIM Costs*		4,621,885	5,166,061	4,886,586	4,586,168	0 0 0	25.464%	25.230%	1,176,903	1,303,414	1,232,902	1,157,106
	Total TAM Net of Adjustments	. 1	1,526,206,675	1,571,734,588	1,471,151,490	1,463,641,827	5		25.62	373,362,223	380,494,941	354,639,448	352,967,584
4 4 1 2 5								Inc	Increase Absent Load Change	Load Change	7,132,718	(18,722,775)	(20,394,639)
\$ 4 4 4 \$ 4 6 6					Oregon-a \$ Chang	Oregon-allocated NPC Baseline in Rates from UE-296 Schedast & Change due to load variance from UE-296 forecast 2017 Recovery of NPC in Rates	: Baseline in Rates from UE-296 I variance from UE-296 forecast 2017 Recovery of NPC in Rates	om UE-296 296 forecast PC in Rates		\$373,362,223 (6,633,884) \$366,728,339			
	*EIM Benefits for the 2017 TAM are reflected in net power costs	flected in ne	et power costs			3				000000000000000000000000000000000000000	42 766 602	(42,000,002)	(43 760 766)
64 64 64								Increa	increase including Load Change	oad change	13,700,002	(12,000,092)	P (cc/,00/,51)
50								Ada	Add Other Revenue	Add Other Revenue Change	1,168,275	1,167,096	1,167,096 g
52								Add Change	in Fixed Gene	Add Change in Fixed Generation for PTC		27,085,374	27,085,374
£ 5									Total	Total TAM Increase	19,909,983	16,163,578	14,491,715

PacifiCorp CY 2017 TAM Production Tax Credits - Stand Alone TAM Adjustment Indicative Update

PTC Revenue Requirement in UE-263						
		Total Company			Oregon Allocated	cated
		UE-263		Factors	UE-263	Revenue
Plant Name	PTC Expiration Date	Final	Factor	CY 2014	Final	Requirement
JC Boyle	11/7/2015	(103,599)	SG	26.053% \$	(26,991) \$	(43,442)
Blundell Bottoming Cycle KWh	12/1/2017	(1,896,326)	SG	26.053%	(494,050)	(795,177)
Glenrock KWh	12/30/2018	(7,646,838)	SG	26.053%	(1,992,231)	(3,206,513)
Glenrock III KWh	1/16/2019	(2,861,406)	SG	26.053%	(745,482)	(1,199,860)
Goodnoe KWh	12/17/2017	(6,138,401)	SG	26.053%	(1,599,238)	(2,573,987)
High Plains Wind	10/14/2019	(7,115,510)	SG	26.053%	(1,853,804)	(2,983,713)
Leaning Juniper 1 KWh	9/13/2016	(7,025,884)	SG	26.053%	(1,830,454)	(2,946,131)
Marengo KWh	8/2/2017	(9,042,126)	SG	26.053%	(2,355,745)	(3,791,592)
Marengo II KWh	6/25/2018	(4,306,194)	SG	26.053%	(1,121,893)	(1,805,696)
McFadden Ridge	10/31/2019	(1,979,446)	SG	26.053%	(515,705)	(830,032)
Seven Mile KWh	12/30/2018	(8,040,700)	SG	26.053%	(2,094,844)	(3,371,669)
Seven Mile II KWh	12/30/2018	(1,583,828)	SG	26.053%	(412,635)	(664,139)
Dunlap I Wind KWh	9/29/2020	(8,132,932)	SG	26.053%	(2,118,873)	(3,410,344)
Total Production Tax Credit		\$ (65,873,189)		မှာ	(17,161,943) \$	(27,622,295)
		\$ Change	due to load	\$ Change due to load variance from UE-263 forecast CY 2017 PTC in Rates	from UE-263 forecast¹ \$ CY 2017 PTC in Rates \$	536,921 (27,085,374)

2							
21	PTC Revenue Requirement CY 2017	CY 2017 - Indicative Update					
22			Total Company			Oregon Allocated	located
		I	CY 2017		Factors	CY 2017	Revenue
23	Plant Name	PTC Expiration Date	Indicative	Factor	CY 2017	Indicative	Requirement
24	JC Boyle	11/7/2015	•	SG	25.230%	•	•
22	Blundell Bottoming Cycle KWh	12/1/2017	(1,642,252)	SG	25.230%	(414,346)	(666,893)
56	Glenrock KWh	12/30/2018	(7,646,838)	SG	25.230%	(1,929,323)	(3,105,262)
27	Glenrock III KWh	1/16/2019	(2,861,406)	SG	25.230%	(721,942)	(1,161,972)
28	Goodnoe KWh	12/17/2017	(5,991,082)	SG	25.230%	(1,511,570)	(2,432,885)
58	High Plains Wind	10/14/2019	(7,115,510)	SG	25.230%	(1,795,267)	(2,889,498)
30	Leaning Juniper 1 KWh	9/13/2016		SG	25.230%	•	•
31	Marengo KWh	8/2/2017	(5,447,249)	SG	25.230%	(1,374,359)	(2,212,043)
32	Marengo II KWh	6/25/2018	(4,306,194)	SG	25.230%	(1,086,467)	(1,748,678)
33	McFadden Ridge	10/31/2019	(1,979,446)	SG	25.230%	(499,421)	(803,822)
34	Seven Mile KWh	12/30/2018	(8,040,700)	SG	25.230%	(2,028,696)	(3,265,203)
32	Seven Mile II KWh	12/30/2018	(1,583,828)	SG	25.230%	(309'66E)	(643,168)
36	Dunlap I Wind KWh	9/29/2020	(8,132,932)	SG	25.230%	(2,051,966)	(3,302,657)
37							
38	Total Production Tax Credit		(54,747,437)			(13,731,523)	(22,232,082)
33							
40					Increase Abs	Increase Absent Load Change	5,390,213
4				ĭ	crease Includir	Increase Including Load Change	4,853,292

<sup>1</sup> Precise adjustment based on rates developed for reply proposal. Differs from estimated load variance amount in filed case of \$546,184 by \$9,263.

PacifiCorp CY 2017 TAM Other Revenues - Stand Alone TAM Adjustmen Indicative Update

			Total Con	mpany						Oregon Allocated	VIlocated	
. <u>.</u>	1	UE-296 Final	CY 2017 Initial	CY 2017 Peply	CY 2017	7	Factors	Factors	UE-296 Final	CY 2017	CY 2017 Peply	CY 2017
- 10	Seattle City Light - Stateline Wind Farm _	(9.811.103)	(9.749.394)	(9.749.394)	(9.749.394)	SG	25.464%	25.230%	(2.498.269)	(2.459.805)	(2.459.805)	(2.459.805)
2	Non-company owned Foote Creek	(904, 184)	(989,006)	(905,359)	(905,359)	SG	25.464%	25.230%	(230,239)	(227,246)	(228,425)	(228,425)
3	BPA South Idaho Exchange	(4,691,490)				SG	25.464%	25.230%	(1,194,627)	` '		
4	Little Mountain Steam Revenues	•	•	•		SG	25.464%	25.230%		•	•	
2	James River Royalty Offset	1		•		SG	25.464%	25.230%	•		•	•
9											•	
. ,	Total Other Revenue	(15,406,778) (10,650,079)	(10,650,079)	(10,654,753)	(10,654,753)			1 1	(3,923,135)	(2,687,051)	(2,688,230)	(2,688,230)
8	1				•			l				Ī
თ					Decrease (Increase) in Other Revenues Absent Load Change	rease) in	Other Rever	ues Absent L	oad Change	1,236,084	1,234,905	1,234,905
10												
=					Ř	aseline Ot	Baseline Other Revenues in Rates	s in Rates	(3,923,135)			
12				\$ Change du	\$ Change due to load variance from UE 296 CY 2016 forecast	e from UE	3 296 CY 201	6 forecast	62,809			
13				O	Other Revenues in Rates using 2017 load forecast	n Rates u	sing 2017 loa	nd forecast	(3,855,326)			
4				•	;		,	:				
15				മ്	Decrease (Increase) in Other Revenues Including Load Change	se) in Oth	er Revenue:	s Including L	oad Change	1,168,275	1,167,096	1,167,096

# **Exhibit E**

Copy of the Indicative Transition Adjustments and Schedule 201 Rates Posted on the Company's Website November 8, 2016

# PACIFIC POWER STATE OF OREGON Schedule 201 Rates to be Effective January 1, 2017 through UE 307 TAM INDICATIVE

Delivery				
Service	Rate Block/	0 1	Schedule 2	
Schedule 4	Lamp Type 1st Block (≤1,000 kWh)	Secondary 2.627	Primary	Transmission
4	2nd Block (>1,000 kWh)	3.588		per kWh per kWh
	211d Block (>1,000 kW11)	3.388		per kwn
23	1st 3,000 kWh	2.910	2.818	per kWh
	All Addl kWh	2.158	2.091	per kWh
				•
28	1st 20,000 kWh	2.845	2.739	per kWh
	All Addl kWh	2.767	2.666	per kWh
30	1st 20,000 kWh	3.041	3.008	per kWh
	All Addl kWh	2.637	2.600	per kWh
41	Wint 1st 100kWh/kW	4.063	3.930	per kWh
	Wint All Addl kWh	2.768	2.681	per kWh
	Summer kWh	2.768	2.681	per kWh
47/48	On-Peak kWh	2.682	2.487	2.337 per kWh
	Off-Peak kWh	2.632	2.437	2.287 per kWh
15		2 102		
15	MV 7 0001	2.193		
	MV 7,000L MV 21,000L	\$1.67 \$3.77		per lamp per lamp
	MV 21,000L MV 55,000L	\$9.04		per lamp
	HPS 5,800L	\$0.68		per lamp
	HPS 22,000L	\$1.86		per lamp
	HPS 50,000L	\$3.86		per lamp
	,			1 1
50		1.810		
	MV 7,000L	\$1.38		per lamp
	MV 21,000L	\$3.11		per lamp
	MV 55,000L	\$7.46		per lamp
51		2.849		
31	LED 4,000L/100 W(comp)	\$0.54		per lamp
	LED 6,200L/150 W(comp)	\$0.77		per lamp
	LED 13,000L/250 W(comp)	\$1.45		per lamp
	LED 16,800L/400 W(comp)	\$1.97		per lamp
	HPS 5,800L/70W	\$0.88		per lamp
	HPS 9,500L/100W	\$1.25		per lamp
	HPS 16,000L/150W	\$1.82		per lamp
	HPS 22,000L/200W	\$2.42		per lamp
	HPS 27,500L/250W	\$3.28		per lamp
	HPS 50,000L/400W	\$5.01		per lamp
	MH 12,000L/175W	\$1.94 \$2.68		per lamp per lamp
	MH 19,500L/250W	\$2.08		per ramp
52	Dusk to Dawn	2.180		per kWh
	Dusk to Midn.	2.180		per kWh
53		0.930		
	HPS 5,800L/70W	\$0.29		per lamp
	HPS 9,500L/100W	\$0.41		per lamp
	HPS 16,000L/150W HPS 22,000L/200W	\$0.60 \$0.70		per lamp
	HPS 27,500L/250W	\$0.79 \$1.07		per lamp per lamp
	HPS 50,000L/400W	\$1.64		per lamp
	MH 9,000L/100W	\$0.36		per lamp
	MH 12,000L/175W	\$0.63		per lamp
	MH 19,500L/250W	\$0.87		per lamp
	MH 32,000L/400W	\$1.39		per lamp
	MH 107,800L/1,000W	\$3.29		per lamp
	Non-Listed	0.930		per kWh
54	All kWh	1 602		
34	All KWII	1.603		per kWh

# PACIFIC POWER STATE OF OREGON

# One-Year Option - Transition Adjustments (cents/kWh) November 2016 Indicative Transition Adjustments

	23/723 S	econdary	23/723	Primary	28/728 S	econdary	28/728	Primary	30/730 S	econdary
	HLH	LLH	HLH	LLH	HLH	LLH	HLH	LLH	HLH	LLH
Jan-17	-0.237	-0.151	-0.929	-0.509	-0.087	-0.296	-0.213	-0.427	-0.177	-0.420
Feb-17	0.911	1.737	1.754	-0.223	1.087	-0.055	0.840	-0.179	0.907	-0.184
Mar-17	0.246	0.266	-0.130	0.082	0.332	0.295	0.049	0.201	0.184	0.216
Apr-17	0.445	0.601	0.694	0.638	0.502	0.985	0.419	0.865	0.364	0.537
May-17	0.761	0.828	0.277	0.623	0.856	1.080	0.486	0.942	0.718	0.955
Jun-17	0.254	0.904	-0.450	0.737	0.293	1.005	0.189	0.749	0.205	0.873
Jul-17	-0.949	0.072	-0.477	-0.219	-0.838	0.219	-0.901	0.229	-0.977	0.093
Aug-17	0.721	2.544	0.250	-0.572	0.677	-0.361	0.725	-0.582	0.688	-0.478
Sep-17	-0.159	-0.731	-0.481	-0.106	-0.236	0.151	-0.307	-0.245	-0.323	0.036
Oct-17	-0.379	-0.134	-0.528	-0.402	-0.281	-0.302	-0.375	-0.460	-0.413	-0.406
Nov-17	-0.790	-0.882	-0.933	-0.464	-0.706	-0.224	-0.779	-0.429	-0.841	-0.382
Dec-17	-0.837	-0.739	-1.062	-0.660	-0.803	-0.493	-0.957	-0.657	-0.903	-0.624

	30/730	Primary	41/741 S	econdary	41/741	Primary		,48/748 ndary	47/747,48/7	48 Primary
	HLH	LLH	HLH	LLH	HLH	LLH	HLH	LLH	HLH	LLH
Jan-17	-0.307	-0.469					-0.786	-0.458	-0.353	-0.639
Feb-17	0.798	-0.243					1.652	-0.327	0.782	-0.412
Mar-17	0.178	0.098					-0.048	0.104	-0.032	-0.028
Apr-17	0.359	0.828	0.640	0.931	0.565	0.855	0.295	0.846	0.123	0.346
May-17	0.665	0.915	0.569	0.922	0.494	0.846	0.714	0.735	0.475	0.475
Jun-17	0.164	0.831	0.129	0.548	0.054	0.473	-0.335	0.730	-0.029	0.641
Jul-17	-0.996	0.076	-0.899	-0.036	-0.974	-0.112	-0.965	-0.166	-1.213	-0.152
Aug-17	0.688	-0.479	-0.245	-0.280	-0.320	-0.355	-0.187	-0.465	0.455	-0.672
Sep-17	-0.361	0.008	-0.278	-0.005	-0.353	-0.080	-0.206	0.002	-0.537	-0.247
Oct-17	-0.442	-0.480	-0.368	-0.303	-0.443	-0.378	-0.473	-0.449	-0.674	-0.609
Nov-17	-0.836	-0.432					-0.976	-0.270	-1.043	-0.620
Dec-17	-0.965	-0.665					-1.156	-0.791	-1.203	-0.819

		,48/748 nission	51/	751	52/	752	53/	753	54/	754
	HLH	LLH	HLH	LLH	HLH	LLH	HLH	LLH	HLH	LLH
Jan-17	-0.457	-0.684	-0.039	-0.245	-0.718	-0.925	-1.997	-2.203	-1.308	-1.515
Feb-17	0.706	-0.456	1.139	-0.024	0.460	-0.703	-0.819	-1.982	-0.130	-1.293
Mar-17	-0.100	-0.289	0.352	0.362	-0.327	-0.317	-1.606	-1.596	-0.917	-0.908
Apr-17	0.046	0.277	0.540	0.758	-0.139	0.078	-1.418	-1.200	-0.730	-0.512
May-17	0.380	0.410	0.856	0.880	0.176	0.201	-1.102	-1.078	-0.414	-0.390
Jun-17	-0.105	0.545	0.344	1.013	-0.335	0.334	-1.614	-0.945	-0.925	-0.256
Jul-17	-1.216	-0.171	-0.795	0.274	-1.475	-0.405	-2.753	-1.684	-2.065	-0.995
Aug-17	0.699	-0.634	1.062	-0.184	0.383	-0.863	-0.896	-2.142	-0.207	-1.453
Sep-17	-0.414	-0.280	0.002	0.157	-0.677	-0.522	-1.956	-1.801	-1.267	-1.112
Oct-17	-0.735	-0.679	-0.314	-0.223	-0.994	-0.902	-2.272	-2.181	-1.584	-1.492
Nov-17	-1.067	-0.638	-0.677	-0.199	-1.357	-0.878	-2.635	-2.157	-1.947	-1.468
Dec-17	-1.188	-0.822	-0.724	-0.390	-1.403	-1.069	-2.682	-2.348	-1.993	-1.659

# PACIFIC POWER STATE OF OREGON

Three-Year Option - Transition Adjustments (cents/kWh)
For Customers Electing Option During the November 2016 Window
November 2016 Indicative Transition Adjustments

Adjustments for Consumers Electing This Option for 2017-2019

6	20/720 0		20/720	D.:
	30//30 8	econdary	30/730	Primary
	HLH	LLH	HLH	LLH
2017	-0.031	0.047	-0.088	0.033
2018	-0.146	0.161	-0.210	0.143
2019	-0.413	0.010	-0.446	-0.008

	47/747, 48/74	48 Secondary	47/747, 48/7	748 Primary	47/747, 48/748	Transmission
	HLH	LLH	HLH	LLH	HLH	LLH
2017	-0.094	0.041	-0.254	-0.199	-0.320	-0.294
2018	-0.346	-0.009	-0.410	-0.129	-0.452	-0.162
2019	-0.548	-0.204	-0.666	-0.255	-0.692	-0.287

# PACIFIC POWER STATE OF OREGON

Five-Year Option - Transition Adjustments (cents/kWh) and Consumer Opt-Out Charge (cents/kWh) For Customers Electing Option During the November 2016 Window November 2016 Indicative Transition Adjustments

Adjustments for Consumers Electing This Option for Service Beginning January 1, 2017

# Transition Adjustments (cents/kWh)

Ī	730 Secondary	730 Primary	747, 748 Secondary	747, 748 Primary	747, 748 Transmission
2017	-0.129	-0.171	-0.162	-0.362	-0.424
2018	-0.149	-0.191	-0.182	-0.387	-0.448
2019	-0.096	-0.139	-0.130	-0.340	-0.404
2020	-0.193	-0.236	-0.227	-0.435	-0.495
2021	-0.301	-0.345	-0.335	-0.547	-0.605

# Consumer Opt-Out Charge (cents/kWh)

	730	730	747, 748	747, 748	747, 748
	Secondary	Primary	Secondary	Primary	Transmission
2017-2021	1.878	1.806	1.856	1.531	1.373