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June 20, 2016

Via Electronic Filing

Public Utility Commission of Oregon Attn: Filing Center 201 High St. SE, Suite 100 Salem OR 97301

Re: In the Matter of PORTLAND GENERAL ELECTRIC CO.

2017 Annual Power Cost Update Tariff

Docket No. UE 308

Dear Filing Center:

Please find enclosed the redacted version of the Confidential Opening Testimony and Exhibits of Bradley G. Mullins on behalf of the Industrial Customers of Northwest Utilities ("ICNU") in the above-referenced docket.

The confidential portions of ICNU's testimony and exhibits are being handled pursuant to the protective order issued in this proceeding and will follow to the Commission via Federal Express

Thank you for your assistance. If you have any questions, please do not hesitate to call.

Sincerely,

/s/ Jesse O. Gorsuch
Jesse O. Gorsuch

Enclosures

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I have this day served the confidential pages of the **Opening Testimony and Exhibits of Bradley G. Mullins** upon the parties shown below by mailing copies via First Class U.S. Mail, postage prepaid.

Dated at Portland, Oregon, this 20th day of June, 2016.

Sincerely,

/s/ Jesse O. Gorsuch
Jesse O. Gorsuch

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PORTLAND GENERAL ELECTRIC COMPANY

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BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

UE 308

In the Matter of)
PORTLAND GENERAL ELECTRIC COMPANY,)
2017 Annual Power Cost Update Tariff.)

CONFIDENTIAL OPENING TESTIMONY OF BRADLEY G. MULLINS ON BEHALF OF THE INDUSTRIAL CUSTOMERS OF NORTHWEST UTILITIES (REDACTED VERSION)

June 20, 2015

TABLE OF CONTENTS TO THE OPENING TESTIMONY OF BRADLEY G. MULLINS

I.	Introduction and Summary	1
II.	Portland Hydro Project Expiration	3
III.		
IV.	Energy Imbalance Market Benefits	
V.	COB Trading Margins	9
VI.	BNSF Roll-Over	10
VII.	Coyote Springs Forced Outage Rate	12
VIII.	BPA Transmission Rates	14

EXHIBIT INDEX

Exhibit ICNU/101: Qualification Statement of Bradley G. Mullins.

Exhibit ICNU/102: Portland Hydro Project Power Sales Agreement and Select Amendments

Confidential Exhibit ICNU/103: Responses to ICNU Data Requests

1 I. INTRODUCTION AND SUMMARY

- 2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
- 3 A. My name is Bradley G. Mullins, and my business address is 333 SW Taylor Street, Suite 400,
- 4 Portland, Oregon 97204.
- 5 Q. PLEASE STATE YOUR OCCUPATION AND ON WHOSE BEHALF YOU ARE TESTIFYING.
- 7 A. I am an independent consultant representing large energy and utility customers throughout the
- 8 western United States. I am appearing on behalf of the Industrial Customers of Northwest
- 9 Utilities ("ICNU"). ICNU is a non-profit trade association whose members are large industrial
- 10 customers served by electric utilities throughout the Pacific Northwest, including customers of
- Portland General Electric Company ("PGE" or the "Company").
- 12 Q. PLEASE SUMMARIZE YOUR EDUCATION AND WORK EXPERIENCE.
- 13 A. A summary of my education and work experience can be found at ICNU/101.
- 14 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?
- 15 A. My testimony addresses the Company's forecast of the level of net variable power costs
- 16 ("NVPC") for calendar year 2017 included in the Company's April 1, 2016 Annual Power Cost
- 17 Update Tariff ("AUT") filing. Pursuant to the April 18, 2016 Conference Report issued by
- Administrative Law Judges Allan J. Arlow and Ruth Harper, this proceed has been bifurcated
- into two phases—the first addressing issues related to the AUT and the second addressing the
- Company's proposal to implement a long-term gas hedging strategy. This testimony
- specifically addresses issues related to the AUT.

Prehearing Conference Memorandum at 1-2 (Apr. 18, 2016).

1 Q. PLEASE PROVIDE A SUMMARY OF YOUR KEY RECOMMENDATIONS AND CONCLUSIONS?

- 3 A. I have reviewed the Company's filing and participated in a June 2, 2016 workshop on this
- 4 matter. A brief summary of my key recommendations and conclusions are as follows:

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- Portland Hydro Project Expiration: The NVPC forecast should include the expected amount of revenues due to the Company as a result of the expiration of the 1979 power purchase agreement for the output of the Portland Hydro Project.
- 2.
- 3. EIM Benefits: I do not oppose the Company's proposal to exclude benefits and costs associated with the Energy Imbalance Market ("EIM") in the fourth quarter of 2017, though I am concerned generally with the lack of benefits Oregon ratepayers are receiving from the State's investor-owned utilities' participation in the EIM.
- 4. COB Trading Margins: The Company's California-Oregon Border ("COB") trading margins adjustment should be modified to exclude the trading costs associated with the EIM, consistent with the Company's proposed treatment of the EIM.
- 5. BNSF Roll-over: The Company's assumption for roll-over tonnage associated with the Burlington Northern Santa Fe ("BNSF") contract should be modified to assume the roll-over tons into 2017 are equal to the roll-over tons into 2018.
- 6. Coyote Springs Outage Rate: The recommendation of Staff witness John Crider in the 2016 AUT filing should be implemented in this proceeding, to adopt a more reasonable outage rate for Coyote Springs in the MONET model.
- 7. BPA Transmission Rates: The rate change attributable to the BP-18 rate case, to be filed in November 2016, is too uncertain to reflect in the Company's NVPC forecast.
- Q. HAVE YOU PREPARED A SUMMARY TABLE OUTLINING THE REVENUE IMPACT OF EACH OF YOUR RECOMMENDATIONS.
- A. Confidential Table 1, below, details the rate impact of each of my recommendations relative to the Company's initial filing:

CONFIDENTIAL TABLE 1
Summary of Recommended NVPC Adjustments (\$million)

	NVPC	
Company Filing (April 1)	\$ 423	3.5
Recommended Adjustments:		
Portland Hydro Project Expiration		
COB Trading Margins	(0.1)	
BNSF Roll-over	(0.5)	
Coyote Springs Outage Rate	(2.5)	
BPA Transmission Rates	(1.0)	
Total	(14	1.1
Adjuste d	\$ 409	9.4

II. PORTLAND HYDRO PROJECT EXPIRATION

2 Q. WHAT IS THE ISSUE RELATED TO THE EXPIRATION OF THE PORTLAND HYDROELECTRIC CONTRACT?

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A. The Company has a power purchase agreement with the City of Portland for the output of the hydroelectric facilities on Reservoirs No. 1 and No. 2 on the Bull Run River. The approximate 36 MW contract was originally executed on April 12, 1979, and will terminate on August 31, 2017. At the time of the termination, a final settlement of a contract provision known as the Renewal and Replacement Fund will occur.

additional revenue in its filing, and accordingly, I propose an adjustment to reflect the expected

See Exhibit ICNU/102 for copies of the relevant contract documentation.

Confidential Exhibit ICNU/103 at 3-4 (the Company's Response to ICNU Data Request ("DR") 008, Confidential Attachment 008-B).

receipts from the Renewal and Replacement Fund, resulting in a \$ reduction to the NVPC included in the Company's initial filing.

3 Q. PLEASE PROVIDE SOME BACKGROUND BEHIND THE PORTLAND HYDRO PROJECT.

The Portland Hydroelectric Project consists of generation facilities on Reservoirs No. 1 and
No. 2 on the Bull Run River. My understanding is that the impoundments at Reservoirs No. 1
and No. 2 were originally constructed in 1929 and 1962, respectively, for purposes of
providing the Portland metropolitan area with water supply. The facilities were later licensed
with the Federal Energy Regulatory Commission ("FERC") to generate electricity on March
22, 1979, corresponding to the timing of the power contract with the Company. 4/

Q. HOW IS THE PRICING IN THE PORTLAND HYDRO CONTRACT STRUCTURED?

The Portland Hydro Project contract contains complicated pricing terms. ^{5/} The contract pricing is based on the actual embedded cost of the hydroelectric facilities, plus a "share-the-savings" component. The share-the-savings component was calculated based on the difference between the embedded costs of the Portland Hydro Project facilities and the embedded cost of the Colstrip Generating Station Units 3 and 4, once considered to be marginal resources to the Company. The savings relative to Colstrip Units 3 and 4 is split equally between the City of Portland and the Company, resulting in an increase in the price paid by the Company when the share-the-savings element is positive. To the extent that the share-the-savings element is negative, however, the pricing is not reduced below the embedded cost of the Portland Hydro Project. Rather, the negative amount carries forward and eventually accrues to a fund, known

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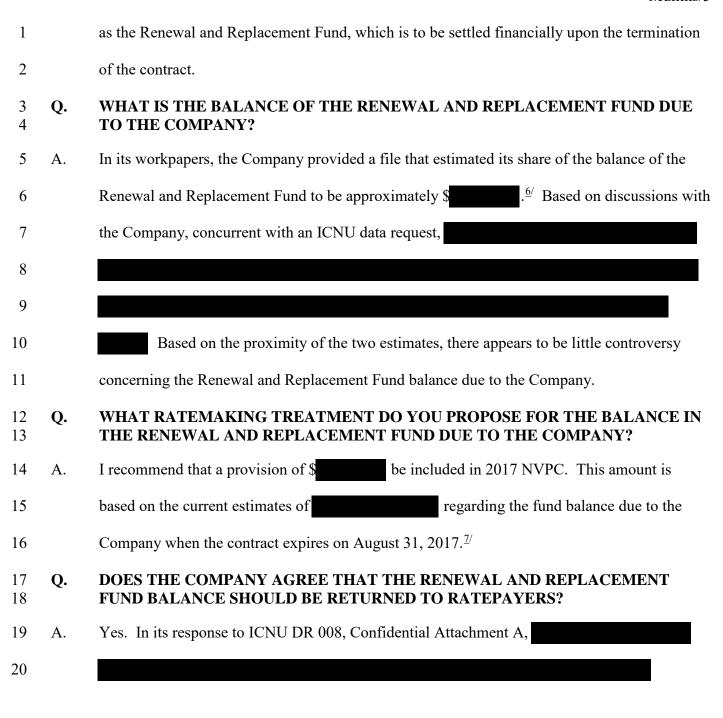
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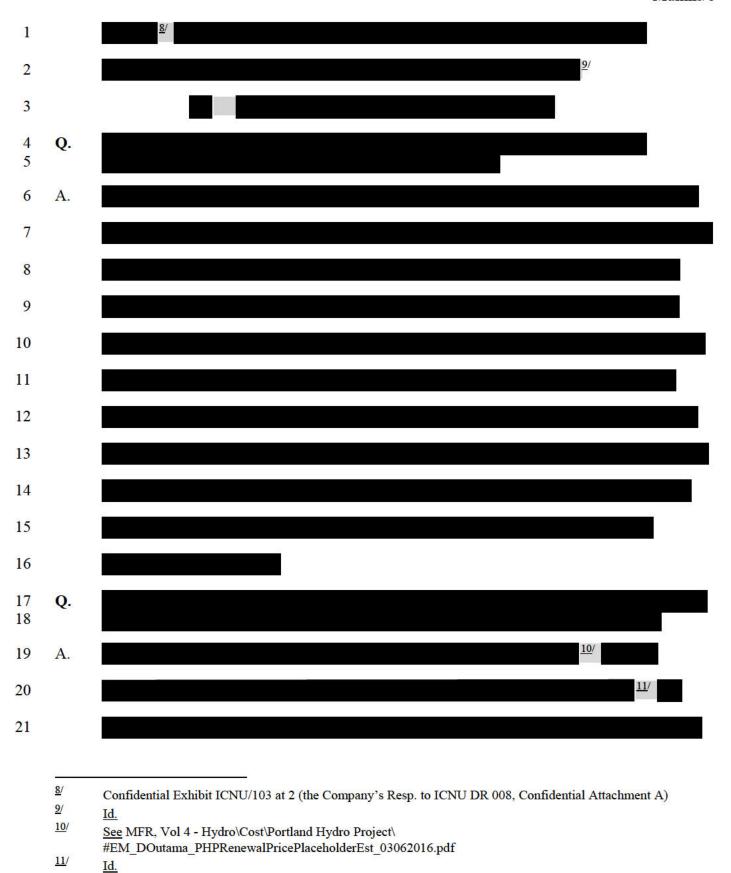
<u>See http://www.ferc.gov/industries/hydropower.asp</u> for a link to a list of active licenses, including the license dates for the Portland Hydro Project.

The description provided here is my understanding. The terms of the Contract, as provided in Exhibit ICNU/102, however, should speak for themselves.

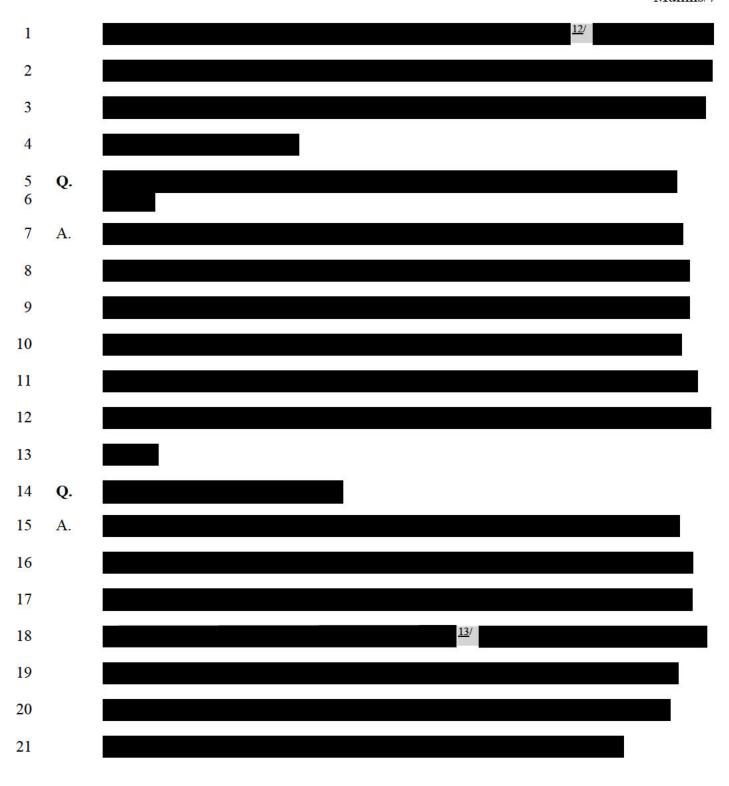


<u>See</u> the Company's Minimum Filing Requirements ("MFR") at Vol 4 - Hydro\Cost\Portland Hydro Project\
#Model 80 Purchase Price December 23, 2015.xlsx.

Confidential Exhibit ICNU/103 at 3-4 (the Company's Resp. to ICNU DR 008, Confidential Attachment 008-B).



UE 308 - Redacted Opening Testimony of Bradley G. Mullins



12/ Id.

From the Company's April 1, 2016 MONET model.

IV. ENERGY IMBALANCE MARKET BENEFITS

2 Q. WHAT IS THE COMPANY'S PROPOSED TREATMENT OF EIM BENEFITS IN THE TEST PERIOD?

The Company is expected to join the EIM in November of 2017. As a result, the Company is expected to recognize the financial benefits of the EIM in the fourth quarter of the forecast period. Notwithstanding the expectation that benefits resulting from its entrance into the EIM will outweigh the costs, however, the Company has proposed to include no benefits related to the EIM in the forecast period. The Company implies that the costs associated with participating in the EIM are roughly equivalent to the benefits expected in the fourth quarter of 2017, and accordingly, that it is not necessary to include any net benefit in the test period. 15/

Q. ARE YOU OPPOSED TO THIS TREATMENT?

Not necessarily. I do have some reservations with the fact that Oregon's investor-owned utilities seem to have promised ratepayers significant benefits as a result of their participation in California markets, such as the EIM; yet, when it comes to passing those benefits on to ratepayers in the rate setting process, utilities seem to be reluctant to include any net benefits in rates. Notwithstanding, given the fact that the EIM will only be operational for a few months in the study period, I do not oppose the Company's treatment for this case, on a non-precedential basis. To the extent other parties raise this issue, and make a compelling case that a provision for EIM benefits ought to be reflected in the Company's forecast, however, I reserve the right to modify my position on this matter at a later phase in this proceeding.

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^{14/} PGE/400 at 20:22-25.

<u>15</u>/ <u>Id.</u> at 17:15-20:25

1 Q. SHOULD THE COMPANY BE REQUIRED TO INCLUDE A PROVISION FOR EIM BENEFITS IN ITS NEXT POWER COST FILING?

A. Yes. In addition, under no circumstance should the Company be allowed to defer costs
associated with the EIM. Because the costs and benefits are assumed to be offsetting in this
proceeding, it would not be consistent with the Company's proposal to seek a deferral of any
costs associated with the EIM in the forecast period.

V. COB TRADING MARGINS

Q. DO YOU AGREE WITH THE WAY THAT THE COMPANY HAS IMPLEMENTED THE COB TRADING MARGINS ADJUSTMENT?

10 The Company's modeling of COB trading margins is based on a recommendation that I made A. on behalf of ICNU in the 2016 AUT proceeding. $\frac{16}{}$ The methodology used by the Company in 11 12 this filing is different than what I proposed in that case, and while I do not necessarily agree 13 with the methodology proposed by the Company, I am not opposing the Company's 14 methodology at this time. My general concern with the methodology is that the use of monthly 15 volumes and monthly price spreads to calculate the economics of the Company's access to the 16 market may not be the best representation of the Company's ability to sell and purchase at the COB market on an hourly basis, which will ultimately depend on the transmission availability 17 18 and price spreads in each hour. I may address this issue in a future filing.

Q. DO YOU HAVE ANY OTHER CONCERNS WITH THE COMPANY'S IMPLEMENTATION OF THE COB TRADING MARGINS ADJUSTMENT

A. Yes. The Company has proposed to impose a minor restriction on the benefits of COB margins in the fourth quarter as a result of joining the EIM. 17/1 Because no benefits associated

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See In re Portland General Electric Company, Request for a General Rate Revision, Docket No. UE 294, Opening Power Cost Testimony of Bradley G. Mullins, ICNU/100 at 3:5-11:11.

PGE/400 at 10:21-11:6; Table 1.

1		with the EIM are being reflected in the test period, however, I recommend lifting this
2		restriction, resulting in an \$0.1 million reduction to NVPC. If the benefits of the EIM are to be
3		excluded from rates, all of the costs associated with the EIM, including restrictions on
4		transmission utilization to the COB market, ought to be excluded from the Company's filing.
5		VI. BNSF ROLL-OVER
6 7	Q.	PLEASE PROVIDE AN OVERVIEW OF THE ISSUE RELATED TO BOARDMAN RAIL COSTS.
8	A.	Due, in part, to relatively low prices for natural gas, Boardman is expected to be out-of-the-
9		money for a major portion of the forecast period. This causes the MONET model to dispatch
10		Boardman at a low capacity factor, notwithstanding the potential for liquidated damages
11		associated with minimum shipment requirements in the Company's rail contracts. To address
12		these minimum shipment requirements, the Company has devised a workaround in the
13		MONET model to mitigate potential minimum shipment shortfall charges by, basically, forcing
14		Boardman to run uneconomically in the test period. $\frac{18}{}$
15	Q.	DO YOU AGREE WITH THE COMPANY'S MODELING?
16	A.	While I am not opposed to the general concept underlying the Company's proposal, I do have a
17		concern with one aspect of the proposal. Specifically, I am concerned with how the Company
18		has modeled a provision of the Burlington Northern Santa Fe ("BNSF") contract allowing for
19		the use of "roll-over" tons when calculating the minimum contract tons for 2017.
20	Q.	WHAT ARE ROLL-OVER TONS?
21	A.	
22		

18/ PGE/400 at 21:17-27:4

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4 5	Q.	WHY ARE YOU CONCERNED WITH HOW THE COMPANY HAS MODELED ROLL-OVER TONNAGE?
6	A.	
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10	Q.	WHY IS THIS APPROACH PROBLEMATIC?
11	A.	The problem with this approach is that the roll-over tons into 2017 are better suited to be
12		considered as a cost applicable to operations in 2016. Similarly, the roll-over tons into 2018
13		are better suited to be considered a cost attributable to operations in 2017. The Company, for
14		example, could eliminate the roll-over tonnage into 2017 altogether by simply running
15		Boardman at a higher capacity factor in 2016. Doing so, however, would require the Company
16		to run the plant uneconomically in 2016, imposing additional cost in 2016 that would otherwise
17		flow through the Power Cost Adjustment Mechanism.
18	Q.	WHAT DO YOU PROPOSE?
19	A.	I propose to set the carry-over tons into 2017 to be equal to the carry-over tons into 2018. This
20		will eliminate any issue associated with potential cost shifting between calendar years, and
21		seems to be a fairer way to account for the roll-over provision of the BNSF contract.
22	Q.	WHAT IS THE IMPACT OF YOUR RECOMMENDATION?
23	A.	The impact of this recommendation is a reduction to NVPC of \$0.5 million.

1 VII. COYOTE SPRINGS OUTAGE RATE 2 Q. WHAT IS YOUR CONCERN WITH THE COYOTE SPRINGS FORCED OUTAGE 3 RATE? 4 In 2013, A. 5 6 $\frac{19}{1}$ In the 2016 AUT, Staff 7 witness John Crider filed testimony contesting the inclusion of the excessive 2013 outage rate in the forced outage rate calculation for Coyote Springs. 20/ The issue, however, was resolved 8 in a "black-box" settlement. 21/ Accordingly, it was not clear whether the Company would 9 continue to include the 2013 data in the outage rate calculation in future filings. In this 10 11 proceeding, the Company did, in fact, retain the excessive 2013 outage rate for Coyote Springs in the forced outage rate calculation. 12 13 WHY DID MR. CRIDER PROPOSE A MODIFICATION TO THE OUTAGE RATE Q. **CALCULATION IN THE 2016 AUT?** 14 15 A. Mr. Crider proposed to eliminate the 2013 data from the Coyote Springs outage rate calculation on the basis that it is an outlier. 22/ Using the same rationale established in Docket No. 16 UM 1355 that requires the outage rate of coal facilities to exclude outlier years, Mr. Crider 17 18 recommended calculating the outage rate for Coyote Springs in a manner that excludes 2013.^{23/} 19 According to Mr. Crider, an outlier year, such as that experienced at Coyote Springs in 2013, is 20 not necessarily representative of expected normalized conditions in the forecast period. 24/

<u>See MFR Vol 3 - Thermal\Thermal Forced Outage\Coyote Springs\</u> #CoyoteFORCalc 2017AUTApr 20150215.xlsx

Docket No. UE 294, Opening Testimony of John Crider, Staff/100.

^{21/} Docket No. UE 294, Order No. 15-356, Appen. B at 4 (Nov. 3, 2015).

^{22/} Docket No. UE 294, Staff/100 at 9:11-13.

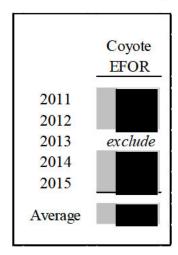
 $[\]frac{23}{}$ Id. at 10:8-20.

<u>Id.</u> at 9:14-10:7

1	Q.	DO YOU AGREE WITH MR. CRIDER'S RECOMMENDATIONS IN THE 2016 AUT?
2	A.	I generally agree with the recommendation regarding the Coyote Springs outage detailed by
3		Mr. Crider in the 2016 AUT and propose to implement his recommendation in this proceeding.
4 5 6	Q.	ARE THERE OTHER REASONS TO EXCLUDE THE 2013 OUTAGE DATA FROM THE OUTAGE RATE CALCULATION FOR COYOTE SPRINGS IN ADDITION TO IT BEING AN OUTLIER?
7	A.	Yes. The length of the outages at Coyote Springs indicate evidence of imprudence.
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9		25/
10		, the Company should to bear the burden of proof to
11		demonstrate that the outage was prudent, which the Company has not done. To the extent that
12		the outage is held to be imprudent, it should not be reflected in the outage rate calculation.
13 14	Q.	HOW DO YOU PROPOSE TO CALCULATE THE OUTAGE RATE FOR COYOTE SPRINGS IN THIS PROCEEDING?
15	A.	I propose to calculate the outage rate for Coyote Springs using the average equivalent forced
16		outage rate ("EFOR") over the four years 2011, 2012, 2014 and 2015, excluding 2013. This
17		calculation has been detailed in Table 2, below:

^{25/} Confidential Exhibit ICNU/103 at 20 (the Company's Resp. to ICNU DR 14, Attach. A)

CONFIDENTIAL TABLE 2 Proposed EFOR Calculation for Coyote Springs



1 Q. WHAT IS THE IMPACT OF MODELING THIS OUTAGE RATE FOR COYOTE SPRINGS IN THE MONET MODEL?

A. The impact of using the outage rate calculation detailed in the above table is a reduction to
 NVPC of approximately \$2.5 million.

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VIII. BPA TRANSMISSION RATES

7 Q. WHAT IS YOUR RECOMMENDATION RELATED TO BPA TRANSMISSION RATES?

October 2017, corresponding to the rate effective date of BPA's upcoming BP-18 power and transmission rate case. The BP-18 rate case is expected to be filed in November of 2016, with a final record of decision to be issued sometime in the summer of 2017. At this point, it is too uncertain to determine what the outcome of the BP-18 rate case will be for transmission rates, and accordingly, I recommend excluding the Company's provision for a BPA transmission rate increase in the fourth quarter of the forecast period.

1 Q. WHAT INFORMATION DID THE COMPANY RELY UPON TO FORECAST A BPA RATE INCREASE IN THE FORECAST PERIOD?

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A. The Company has based its forecast of a rate increase on a "reference case" scenario analysis performed as a part of a BPA-led initiative known as Focus 2028. I attended the Focus 2028 workshops where the reference case was discussed. In those workshops, BPA was clear that the projections detailed in the reference case were not intended to be a forecast of future rates. Rather, they were designed to be used to perform scenario analysis, evaluating how strategic decisions made by BPA today might impact rates in the late 2020s, corresponding to the timing of the expiration of BPA's long-term, Regional Dialogue contracts.

10 Q. HAS BPA RELEASED MORE RECENT INFORMATION REGARDING ITS EXPECTATIONS IN THE BP-18 RATE CASE?

12 A. Yes. BPA has subsequently released its Integrated Program Review ("IPR"), a cost

13 verification document that will be used to inform BPA's BP-18 initial proposal in November.

14 In that document, BPA indicated that "Transmission Services preliminary rate increase is 3 to 5

15 percent." This indicates that the Company's forecast is potentially overstated.

In addition, the percentage values presented in the IPR are representative of BPA's overall transmission revenue requirement, not the specific rates paid by the Company. It is possible that the rate increase attributable to point-to-point ("PTP") transmission rates, the type of service acquired by the Company, could be much lower relative to the initial estimate in the IPR. In fact, it is possible that PTP rates could decline as a result of the BP-18 proceeding.

See Bonneville Power Administration Long Term Financial and Rates Analysis, Reference Case Results (Oct. 2015). Available at: https://www.bpa.gov/Finance/FinancialPublicProcesses/2028/doc2028/Long-Term%20Financial%20Rates%20and%20Analysis%20Reference%20Case%20Results.pdf

Bonneville Power Administration, 2016 Integrated Program Review / Capital Investment Review Details at 91. Available at https://www.bpa.gov/Finance/FinancialPublicProcesses/IPR/2016IPRDocuments/2016-IPR-CIR-Detailed-Publication.pdf

1 Q. WHY IS IT POSSIBLE THAT PTP TRANSMISSION RATES COULD DECLINE AS A RESULT OF THE BP-18 RATE PROCEEDING?

3 A. There are a number of proposals that are expected in the BP-18 rate case which could reduce
4 PTP transmission rates.

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For example, it is likely that in the BP-18 rate case, investor-owned utilities will propose that BPA refund hundreds of millions in accumulated financial reserves to transmission customers. If adopted by the Administrator, such a proposal could materially impact transmission rates in the upcoming proceeding, relative to the information presented in the IPR. A potential framework for refunding transmission reserves, in fact, was recently discussed in a June 15, 2016 workshop on BPA's financial reserves policies. ^{28/}

Similarly, it is also expected that there will be cost allocation proposals in the case, which could reduce PTP transmission rates relative to other transmission rates (such as network integration). This potential was similarly discussed in a May 24, 2016 transmission rates workshop, where BPA was considering a cost allocation methodology option that would produce a 2.4% reduction to PTP rates, relative to existing levels.^{29/}

While both of these proposals are in preliminary stages, they demonstrate the high degree of uncertainty surrounding the outcome of the BP-18 rate case, particularly for PTP transmission customers.

See BPA, BPA Financial Reserves Workshop #3. Available at: https://www.bpa.gov/Finance/FinancialPublicProcesses/AccesstoCapital/June%2015%20BPA%20Reserves%20 Workshop%203.pdf

See BPA, BP-18 Transmission Rate Case Workshop at 21 (May 24, 2016). Available at: https://www.bpa.gov/Finance/RateCases/BP-18/Meetings/BP-18 TxRateCaseWorkshop 20160524 updated.pdf

1 Q. WHAT DO YOU RECOMMEND?

- 2 A. Because the rate change associated with the BP-18 rate case is not known and measurable at
- 3 this time, I recommend eliminating the Company's assumption of a rate increase, which will
- 4 reduce NVPC by \$1.0 million.

5 Q. DOES THIS CONCLUDE YOUR OPENING TESTIMONY?

6 A. Yes.

BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

EXHIBIT ICNU/101

QUALIFICATION STATEMENT OF BRADLEY G. MULLINS

June 20, 2016

Q. PLEASE SUMMARIZE YOUR EDUCATION AND WORK EXPERIENCE.

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- 2 I received Bachelor of Science degrees in Finance and in Accounting from the University A. 3 of Utah. I also received a Master of Science degree in Accounting from the University of 4 Utah. After receiving my Master of Science degree, I worked as a Tax Senior at Deloitte 5 Tax, LLP, where I provided tax compliance and consulting services to multi-national 6 corporations and investment fund clients. Subsequently, I worked at PacifiCorp Energy 7 as an analyst involved in regulatory matters primarily surrounding power supply costs. I 8 began performing independent consulting services in September 2013 and provide 9 consulting services to large utility customers, and independent power producers on 10 matters ranging from power costs and revenue requirement to power purchase agreement 11 negotiations.
- 12 Q. PLEASE PROVIDE A LIST OF YOUR REGULATORY APPEARANCES.
- 13 A. I have sponsored testimony in regulatory proceedings throughout the Western United
 States, including the following:
- Or.PUC, UM 1050: In the Matter of PacifiCorp, Request to Initiate an Investigation of
 Multi-Jurisdictional Issues and Approve an Inter-Jurisdictional Cost Allocation
 Protocol
- Wa.UTC, UE-152253: In re Pacific Power & Light Co., General rate increase for
 electric services

1	• wy.PSC, 20000-409-ER-13 in The Matter of the Application of Rocky Mountain
2	Power for Authority of a General Rate Increase in Its Retail Electric Utility Service
3	Rates in Wyoming Of \$32.4 Million Per Year or 4.5 Percent
4	• Wa.UTC, UE-150204: In re Avista Corporation, General rate increase for electric
5	services
6	• Wy.PSC, 20000-472-EA-15: In re the Application of Rocky Mountain Power to
7	Decrease Rates by \$17.6 Million to Recover Deferred Net Power Costs Pursuant To
8	Tariff Schedule 95 to Decrease Rates by \$4.7 Million Pursuant to Tariff Schedule 93
9	• Wa.UTC, UE-143932: Formal complaint of The Walla Walla Country Club against
10	Pacific Power & Light Company for refusal to provide disconnection under
11	Commission-approved terms and fees, as mandated under Company tariff rules
12	• Or.PUC, UE 296: In re PacifiCorp, dba Pacific Power, 2016 Transition Adjustment
13	Mechanism
14	• Or.PUC, UE 294: In re Portland General Electric Company, Request for a General Rate
15	Revision
16	• Or.PUC, UM 1662: In re Portland General Electric Company and PacifiCorp dba
17	Pacific Power, Request for Generic Power Cost Adjustment Mechanism Investigation
18	• Or.PUC, UM 1712: In re PacifiCorp, dba Pacific Power, Application for Approval of
19	Deer Creek Mine Transaction
20	• Or.PUC, UM 1719: In re Public Utility Commission of Oregon, Investigation to
21	Explore Issues Related to a Renewable Generator's Contribution to Capacity

I	• Or.PUC, UM 1623: In re Portland General Electric Company, Application for Deferral
2	Accounting of Excess Pension Costs and Carrying Costs on Cash Contributions
3	• Bonneville Power Administration, BP-16: 2016 Joint Power and Transmission Rate
4	Proceeding
5	• Wa.UTC, UE-141368: In re Puget Sound Energy, Petition to Update Methodologies
6	Used to Allocate Electric Cost of Service and for Electric Rate Design Purposes
7	• Wa.UTC, UE-140762: In re Pacific Power & Light Company, Request for a General
8	Rate Revision Resulting in an Overall Price Change of 8.5 Percent, or \$27.2 Million
9	• Wa.UTC, UE-141141: In re Puget Sound Energy, Revises the Power Cost Rate in WN
10	U-60, Tariff G, Schedule 95, to reflect a decrease of \$9,554,847 in the Company's
11	overall normalized power supply costs
12	• Wy.PSC, 20000-446-ER-14: In re The Application of Rocky Mountain Power for
13	Authority to Increase Its Retail Electric Utility Service Rates in Wyoming
14	Approximately \$36.1 Million Per Year or 5.3 Percent
15	• Wa.UTC, UE-140188: In re Avista Corporation, General Rate Increase For Electric
16	Services, RE: Tariff WN U-28, Which Proposes an Overall Net Electric Billed Increase
17	of 5.5 Percent Effective January 1, 2015
18	• Or.PUC, UM 1689: In re PacifiCorp, dba Pacific Power, Application for Deferred
19	Accounting and Prudence Determination Associated with the Energy Imbalance Market
20	• Or.PUC, UE 287: In re PacifiCorp, dba Pacific Power, 2015 Transition Adjustment
21	Mechanism.

1	• Or.PUC, UE 283: In re Portland General Electric Company, Request for a General Rate
2	Revision
3	• Or.PUC, UE 286: In re Portland General Electric Company's Net Variable Power Costs
4	(NVPC) and Annual Power Cost Update (APCU)
5	• Or.PUC, UE 281: In re Portland General Electric Company 2014 Schedule 145
6	Boardman Power Plant Operating Adjustment
7	• Or.PUC, UE 267: In re PacifiCorp, dba Pacific Power, Transition Adjustment, Five-
8	Year Cost of Service Opt-Out (adopting testimony of Donald W. Schoenbeck).

BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

	UE 308
In the Matter of)
PORTLAND GENERAL ELECTRIC COMPANY,)
2017 Annual Power Cost Update Tariff.)

EXHIBIT ICNU/102

PORTLAND HYDRO PROJECT POWER SALES AGREEMENT AND SELECT AMENDMENTS

June 20, 2016

AUDIT No. 33049

POWER SALES AGREEMENT Executed by CITY OF PORTLAND, OREGON and PORTLAND GENERAL ELECTRIC COMPANY

THIS AGREEMENT, entered into as of the 12th day of April, 1979, is between the CITY OF PORTLAND ("City"), a municipal corporation of the State of Oregon, and PORTLAND GENERAL ELECTRIC COMPANY ("Purchaser"), a corporation organized and existing under the laws of the State of Oregon.

RECITALS

City is authorized under its Charter to enter into contracts with privately-owned utilities for the transmission and sale of the capacity of, and electric power generated by, hydroelectric power generating facilities owned by City.

City has applied to the Federal Energy Regulatory Commission ("FERC") for a license to construct and to operate Project No. 2821, designated as the Portland Hydroelectric Project on the Bull Run River in Multnomah and Clackamas Counties, Oregon ("the Project"), by adding to the existing City-owned dams forming part of its Bull Run Water Supply System the structures, fixtures, equipment and hydroelectric power generating facilities for transmission and sale of electric power which license, if, as, and when issued, together with any amendments thereto, is hereinafter referred to as the "FERC License".

City has applied to the Oregon Water Policy Review Board ("WPRB") for permits to appropriate water for hydroelectric power generation at Bull Run Dams No. 1 and No. 2, which permits, if, as and when issued, together with any amendments thereto, are hereinafter referred to as the "WPRB permits".

Purchaser, a privately-owned utility, desires to purchase the power generated by the Project from City to provide service to the general populace within its service area in Multnomah and Clackamas Counties, and City desires to sell the power and energy from the Project for such purposes.

The output of the Project will be available for use by members of the public in Multnomah and Clackamas Counties and the Project will serve general public use.

City, having the responsibility for financing and constructing the Project, proposes to issue tax-exempt Revenue Bonds to finance construction.

CITY AND PURCHASER, FOR AND IN CONSIDERATION OF THE FOLLOWING MUTUAL COVENANTS AND AGREEMENTS, AGREE AS FOLLOWS:

SECTION 1. Term of Agreement. This Agreement shall be in full force and effect from the date of its execution until midnight of August 31, 2017, or until the Revenue Bonds as defined in the Bond Ordinance and the Mortgage and Indenture of Trust ("Trust Indenture") thereby authorized and approved are paid or provision is made for their retirement, whichever is later.

SECTION 2. Definitions and Explanations of Terms.

- (a) "Annual Power Cost" means the sum of all of City's costs resulting from the ownership of, and renewals and replacements to, the Project, including, but not limited to, the items hereinafter mentioned in this subsection 2(a) that are incurred or paid by City during each Contract Year in connection with the project, to wit:
 - (1) The amount required by the Trust Indenture to be set aside by City for the payment of Debt Service;
 - (2) Any amount required by the Trust Indenture to maintain the Bond Reserve Fund at the level specified in such Trust Indenture;
 - (3) An amount equal to 1.25 percent $(1\frac{1}{4}\%)$ of the Cost of Acquisition and Construction less those portions described in Subsections 2(g)(1), 2(g)(2) and 2(g)(5) hereof as adjusted by the ratio which the then current calendar year's Construction Cost Index bears to the Construction Cost Index for the year in which Completion of Construction occurred, which amount, as adjusted, shall be placed in the Renewal and Replacement Fund to be disbursed in accordance with Subsection 7(c) hereunder and the terms of the Trust Indenture; provided that in no event shall the amount in the Renewal and Replacement Fund at any time during the term of this Agreement exceed twelve percent (12%) of the Cost of Acquisition and Construction, less those portions described in Subsections 2(g)(1), 2(g)(2) and 2(g)(5), as adjusted by the ratio which the then current calendar year's Construction Cost Index bears to the Construction Cost Index for the year in which Completion of Construction occurred.
 - (4) An amount equal to City's reasonable costs of administration in connection with the Project which costs may include, among others, fees payable to the Consulting Engineer for services performed pursuant to this Agreement during any Contract Year;
 - (5) An amount equal to City Bureau of Water Works' reasonable costs for water quality testing and control in connection with the Project;

- (6) An amount equal to the sum of all permit or license fees (excluding those imposed by City) including considerable and the sum of all permit or license fees (excluding those imposed by City) including considerable and the sum of all permit or license fees (excluding those imposed by City) including considerable and the sum of all permit or license fees (excluding those imposed by City) including considerable and the sum of all permit or license fees (excluding those imposed by City) including considerable and the sum of all permit or license fees (excluding those imposed by City) including considerable and the sum of all permit or license fees (excluding those imposed by City) including considerable and the sum of all permit or license fees (excluding those imposed by City) including considerable and the sum of all permit or license fees (excluding those imposed by City) including considerable and the sum of all permit or license fees (excluding those imposed by City) including considerable and the sum of all permit or license fees (excluding those imposed by City) including considerable and the sum of all permit or license fees (excluding those imposed by City) including the sum of all permit or license fees (excluding those imposed by City) including the sum of or expenses to carry out obligations imposed by a government agency as a condition of such permit or license and all taxes which City may be required to pay in connection with the Project; and
- (7) An amount equal to the sum of insurance premiums payable for insuring against the risks specified in Section 12 of this Agreement.
- (b) "Bond Ordinance" means the ordinance adopted by the Council of City authorizing the sale of Revenue Bonds to finance or to refinance the Cost of Acquisition and Construction and other costs in connection with the Project and authorizing and approving the Trust Indenture and the terms and conditions therein, receipt of a certified copy of
- (c) "Completion of Construction" means the date the latter of the Project generating units to be completed shall have been installed, and, in the written opinion of the Consulting Engineer effective upon delivery of a copy of such opinion to City and Purchaser, is capable of continuous operation. This definition of the term "Completion of Construction" shall be applicable only to this Agreement and need not necessarily apply to such term where used in the Bond Ordinance or in any Construction Contract documents.
- (d) "Consulting Engineer" means the professional engineering firm engaged by City, which firm, as of the date of this Agreement, is CH2M Hill, Inc., as evidenced by that Agreement dated November 12, 1976 between CH2M Hill, Inc., and City, Purchaser hereby acknowledges receipt of a copy of that Agreement.
- (e) "Construction Cost Index" means the indicator published from time to time by Engineering News-Record or a substitute indicator mutually agreed upon. Adjustments required by this Agreement to be made for the Construction Cost Index shall be made once annually and, with respect to any given year, the Index shall be the median value determined with respect to all Indices published for such year.
- (f) "Contract Year" means a fiscal period under this Agreement from and after "Completion of Construction." "Contract Year" includes a 12-month period commencing at 12:01 a.m. on September 1 of each year, provided, however, that the first Contract Year hereunder shall commence on the date of Completion of Construction and shall end
- (g) "Cost of Acquisition and Construction" means all of City's costs of acquisition, construction, and financing of the Project, heretofore or hereafter paid or accrued by City, including but not limited to:
 - (1) The Bond Reserve Fund in an amount specified in the Trust Indenture not to exceed the maximum amount required for payment of Debt Service in any single future year the Revenue Bonds are outstanding;
 - (2) Interest accruing on the Revenue Bonds prior to and during construction of the Project, but in no event after October 1, 1982;
 - (3) All fees and expenses properly paid or incurred in connection with the Project whether paid or incurred prior to or during construction of the Project, which fees and expenses may include, among others, the cost of preliminary surveys, investigations, bond discount, legal and financing costs and engineering;
 - (4) The cost of all facilities included in the Project; and
 - (5) The Renewal and Replacement Fund in an amount specified in the Trust Indenture not to exceed 1.25 percent of the sum of the amounts of Subsection 2(g) (3) and 2(g) (4) hereof.
- (h) "Debt Service" means with respect to any period the amount to be paid or accrued during said period to retire the principal of and pay the interest and premium, if any, on all Revenue Bonds or other evidences of indebtedness issued at any time by City for the purpose of paying the Cost of Acquisition and Construction and on all bonds issued pursuant to the Bond Ordinance in the amount provided in such Ordinance.
- (i) "Initial Date of Delivery" means 12:01 a.m. of the day City first delivers power and energy to Purchaser hereunder from a Project generating unit which date, whether during or after testing of such unit, shall be certified
- (j) "Initial Delivery Period" means the period of time commencing on the Initial Date of Delivery and ending on the date of Completion of Construction (which latter date coincides with the date of commencement of the first Contract Year hereunder).
 - (k) "Month" means a calendar month.
- (1) "Project" means those properties and facilities constructed or owned by City and financed by proceeds of the Revenue Bonds consisting of, among others, powerhouses, turbines, generators, Power Plants Nos. 1 and 2, substations and switchyards and all associated transmission facilities owned by City interconnecting the Project facilities with facilities of Purchaser used in generating power and energy hereunder, but excluding dams, reservoirs, water conduits and other properties and facilities installed prior to the date of this Agreement.
- (m) "Project Output" means the amount of power and energy produced by the Project during the term of this contract as metered at the point of delivery.
- (n) "Revenue Bonds" means the bonds issued by City to finance or to refinance the Cost of Acquisition and Construction and other costs in connection with the Project, which Revenue Bonds shall be payable solely from the revenues derived from the sale of power and energy under the terms of this Agreement, all as authorized by the Bond

- (o) "Uncontrollable Forces" means any cause beyond the control of either party hereto affecting such party's performance, and which by the exercise of due diligence, the party is unable to prevent or overcome, including, but not limited to, an act of God, fire, flood, explosion, strike, sabotage, an act of the public enemy, civil or military authority, court orders, injunctions, and orders of government agencies with proper jurisdiction, insurrection or riot, an act of the elements, failure of equipment, or inability to obtain or to ship materials or equipment because of the effect of similar causes on suppliers or carriers.
- (p) "Uniform System of Accounts" means the Uniform System of Accounts prescribed by FERC for Electric Utilities and Licensees in effect at the time this Agreement is executed, and as thereafter may be amended from time to time by FERC.
- SECTION 3. Amount of Energy and Power Sold. City agrees to sell to Purchaser, and Purchaser agrees to purchase, the entire Project Output.

SECTION 4. Payment for Power Sold.

- (a) Purchaser agrees to pay City, in monthly installments, for each Contract Year, regardless of the amount of power or energy delivered hereunder, the sum of
 - (1) an amount equal to the Annual Power Cost, plus
 - (2) an amount equal to the product of the actual annual Project Output in kilowatt-hours of energy, divided by 108,700,000 kilowatt-hours, multiplied by
 - (i) \$305,000, or
 - (ii) ten percent (10%) of the annual amount required by the Trust Indenture to be set aside by City for the payment of Debt Service,

whichever is greater, plus

(3) an amount, designated the "Share the Savings Element", equal to fifty percent (50%) of the difference by which the Annual Power Cost (increased by costs of operation and maintenance) for such Contract Year is less than the normalized average cost per kilowatt-hour for such Contract Year of the most recently completed Purchaser-related thermal unit which shall have been put into commercial operation prior to such Contract Year, times the number of kilowatt-hours actually delivered to Purchaser by City during such Contract Year,

which sum of amounts shall be the "Annual Purchase Price." In the event that in any Contract Year there is a <u>negative Share</u> the Savings Element because the Annual Power Cost (increased by costs of operation and maintenance) for such Contract Year is more than the normalized average cost per kilowatt-hour of the most recently completed Purchaser-related thermal unit which shall have been put into commercial operation prior to such Contract Year, times the number of kilowatt hours actually delivered to Purchaser by City during such Contract Year, then the amount of the negative Share the Savings Element for such contract year shall be an offset against the Share the Savings Element for any future Contract Year or Years so that <u>only the net positive Share the Savings Element for the future Contract Year or Years</u> shall be included in the Annual Purchase Price for such future Contract Year or Years.

For purposes of this Subsection 4(a)(3):

the term "cost of operation and maintenance" means those costs paid by Purchaser pursuant to Subsection 4(i),

the term "normalized average cost per kilowatt-hour" means the cost of normal operation of such thermal plant (initially at seventy-five percent (75%) capacity factor, subject to adjustment annually under Section 11 of this agreement to reflect the national industry average for comparable units. For purposes of this agreement, the adjusted capacity factor is defined as the actual total gross generation in megawatt hours plus additional credit for all voluntary cutbacks, the sum divided by the average gross dependable unit capacity times the hours in the period under consideration.) computed in accordance with commonly accepted utility industry principles, and

the term "Purchaser-related thermal-unit," means any generating unit having a nameplate rating of 500,000 kilowatt capacity or greater, whether fueled by fossil fuels or by nuclear energy, upon any portion of the output of which unit (except for "spot purchases") Purchaser relies to meet its base load.

- (b) On or before one hundred twenty (120) days prior to the estimated date of Completion of Construction, and on or before May 1 of each Contract Year thereafter, City shall prepare and mail to Purchaser a pro forms statement showing:
 - (1) The estimated date of Completion of Construction of the Project. This need not be shown after the first statement; provided, that City shall keep Purchaser advised at all times of changes in such estimated date.
 - (2) A detailed estimate of the Annual Power Cost of the Project for the following Contract Year, plus the net positive Share the Savings Element, together hereinafter called the "Estimated Annual Purchase Price"; and
 - (3) The amount of the equal monthly payments to be made by Purchaser to pay the Estimated Annual Purchase Price during such Contract Year.

This statement shall be in lieu of the issuance of monthly bills to Purchaser by City.

- (c) In the event of a change in costs or Project Output affecting the Estimated Annual Purchase Price by more than ten percent (10%) during any Contract Year, City shall prepare and mail to Purchaser a revised Estimated Annual Purchase Price together with detailed descriptions and computations of such revised estimate which shall supersede the previous Estimated Annual Purchase Price as a basis for Purchaser's monthly payments for the balance of that Contract Year.
- (d) These monthly payments are due and payable at the office of United States National Bank of Oregon, Corporate Trusts and Agencies. P.O. Box 3850, Portland, Oregon 97208, (Trustee), on the twentieth day of the month following the month in which the date of Completion of Construction occurs, and the twentieth day of each month thereafter, whether or not the Project is then operating; provided, that for the first month in which payment is due, Purchaser may reduce the payment to an amount equal to the Estimated Annual Purchase Price divided by the number of days in the first Contract Year and multiplied by the number of days in the first month included within that Contract Year.
- (e) If payment in full is not made on or before the close of business on the twentieth day of the month, a delayed-payment charge of one and one-half percent $(1\frac{1}{2}\%)$ per month or part thereof thereafter of the unpaid amount due will be made. If the twentieth day of the month is a Saturday, Sunday or a federal holiday, the next following business day shall be the last day on which payment may be made without the addition of the delayed-payment charge.
- (f) On or before one hundred twenty (120) days after the end of each Contract Year, City will submit to Purchaser a detailed statement of the actual Annual Purchase Price for said Contract Year, based on the annual audit of the accounts of the Project provided for in Section 10 hereof, and will compare the actual Annual Purchase Price with the Estimated Annual Purchase Price for the Contract Year. If the actual amount exceeds the estimated amount, City shall bill Purchaser for an amount equal to the excess and Purchaser agrees to pay the bill within 20 days of receipt of the bill. If the actual amount is less than the estimated amount, City shall give credit to Purchaser against the current charges for power of an amount equal to the difference between the actual amount and the estimated amount provided, that if the comparison is made following the expiration of this Agreement, City shall make a cash refund of that amount to Purchaser.
- (g) Purchaser shall be entitled to receive during the Initial Delivery Period all of the Project Output, without charge.
- (h) Purchaser agrees to pay City at the office of United States National Bank of Oregon, Corporate Trusts and Agencies, P.O. Box 3850, Portland, Oregon 97208, (Trustee), in the event the first Contract Year shall not commence until October 1, 1982 or later, on the twentieth day of each month subsequent to September 30, 1982 through the month in which completion of construction occurs, an amount equal to one-sixth (1/6) semi-annual interest and one-twelfth (1/12) annual principal payment required on the Revenue Bonds for each month thereafter until the first Contract Year shall commence.
- (i) City and Purchaser acknowledge that the Annual Purchase Price is net of any costs of operation and maintenance (except as these costs are used in calculating the Share the Savings Element), which costs of operation and maintenance Purchaser assumes and agrees to pay.
- SECTION 5. Scheduling and Dispatching of Generation and Water Quality Requirements.
- (a) City and Purchaser shall agree upon the scheduled release of water from the reservoirs behind the dams as limited by the requirements of the FERC License and any applicable restrictions imposed by the State of Oregon and the requirements of this Section 5. Purchaser has the sole right to schedule and to dispatch the generation at the Project subject only to the water quality restrictions set forth in Subsection 5(b) and the dispatch restrictions set forth in Subsection 5(c).
- (b) The operation of the Project shall be subject to the requirements of City when water supply, water quality or protection and maintenance of City's water works and property may be adversely affected by such operations.

Purchaser shall notify City 48 hours in advance of projected generation; provided, that a shorter notice, but no less than 8 hours, may be given during periods of heavy runoff to provide optimization of the available water resource for generating purposes.

City shall designate an official of its Water Bureau who shall have the authority, without advance notice, to terminate or to defer the generation of electrical power when in his/her judgment such generation would contribute to a degradation in water quality, a depletion in the storage requirements or would endanger property or interfere with necessary maintenance of City's facilities.

City will take into consideration the needs of Purchaser to optimize energy utilization from the generating plants and will advise Purchaser, as far in advance as reasonably possible, of any interference with generation schedules.

Except as necessary to protect water quality or quantity, fluctuation of the reservoirs shall be limited to between elevation 1034 and the spillway crest at Dam No. 1, and to between elevation 858 and the spillway crest at Dam No. 2.

(c) Purchaser covenants that it shall design and operate its system so that electric energy received from the Project will be confined to providing electric service to the general populace within the two contiguous counties of Clackamas and Multnomah, Oregon during the term of this Agreement. Attached hereto, as "Exhibit A" to this Agreement and by this reference made a part of this covenant, is a System Design Diagram and Operational Instructions which Purchaser shall implement to confine electric energy received from the Project to such two contiguous counties. Purchaser shall not amend such Diagram or Instructions, or implement such amendment, without first having certified to City in writing that such proposed amendment will continue to confine the electric energy received from the Project



to providing electric service to the general populace within the two contiguous counties of Clackamas and Multnomah, Oregon.

- (d) City shall have the right to obtain independent certification by Consulting Engineer, or hy other professional engineers selected by City, that the System Design Diagram and Operational Instructions set forth in Exhibit A to this Agreement, or any proposed amendment thereto, will result, when implemented, in confining the electric energy received from the Project to providing electric service within the contiguous counties of Clackamas and Multnomah, Oregon.
- (e) Purchaser shall certify to City in writing that it has installed the necessary equipment and issued appropriate orders to its personnel to implement the System Design Diagram and Operational Instructions set forth in Exhibit A, receipt of which written certification is a condition precedent to City's obligation to delivery of power and energy on the Initial Date of Delivery.
- (f) Purchaser shall defend and hold City harmless from all claims (including but not limited to any additional interest costs required under the terms of the Trust Indenture) against City resulting from or in any way arising out of a determination that interest on the Revenue Bonds was not, is not or will not be, exempt from Federal income tax and from Oregon personal income tax due to or caused by Purchaser's act or omission.
- SECTION 6. Point of Delivery. Electric power and energy to be delivered hereunder shall be made available to Purchaser at the point in Purchaser's Bull Run substation where the 57-kV transmission facilities of the Project are connected to the facilities of Purchaser.

SECTION 7. Operation and Maintenance of the Project; Renewal and Replacement Fund.

- (a) Purchaser shall operate and maintain the Project from the Initial Date of Delivery until the termination of this Contract.
- (b) Purchaser shall operate and maintain the Project in accordance with the highest current standards of the electric power industry and shall perform all operational and maintenance procedures specified in the Operations and Maintenance Manuals furnished by City and approved by Purchaser with respect to all facilities in the Project, which approval will not be unreasonably withheld. City may, at any time, cause its Consulting Engineer to inspect the operation and maintenance of the Project and, in the case of any such inspection, shall furnish a copy of any inspection report to Purchaser promptly after it has been prepared. Purchaser shall remedy any deficiencies in a timely manner.
- (c) The Trust Indenture shall provide for a Renewal and Replacement Fund established thereunder to be administered as follows: Any item of equipment determined by mutual agreement to need replacement or renewal shall be replaced or renewed at the expense of the Fund, to the extent of any balance in such Fund. In no event shall any costs of repair or normal routine maintenance be charged to the Fund but rather such costs are payable by Purchaser in accordance with Subsection 4(i) herein.
- (d) Except in the event of emergency requiring immediate action. City shall give Purchaser reasonable notice, in no event less than thirty (30) days, whenever it proposes to replace items of major equipment.

SECTION 8. Character and Continuity of Service.

- (a) Power and energy supplied hereunder shall be approximately 57-kV, three-phase, alternating current, at approximately sixty Hz. In addition to the occasions specified in Subsection 5(b), City may temporarily interrupt or reduce deliveries of electric energy to Purchaser if City determines that the interruption or reduction is necessary in case of emergencies. In order to install equipment in, make repairs to, replacements, investigations and inspections of, or perform other maintenance work on the Project, and in order that operations of the Project will not be unreasonably interrupted or interferred with, either City or Purchaser, after consulting with each other regarding any such planned interruption or reduction, giving the reason therefor and stating the probable duration thereof, will to the best of its ability schedule such interruption at a time which will cause the least interference to the operations of the Project.
- (b) Except as interrupted by Uncontrollable Forces or as provided in Subsection 5(b) or otherwise by this Agreement, power and energy shall be made available in accordance with this Agreement at all times during the term of this Agreement commencing with the Initial Date of Delivery.

SECTION 9. Metering and Transmission Losses.

- (a) City shall provide suitable meters in each power house of the Project to indicate and to record generation. Purchaser shall provide suitable metering at the point of delivery specified in Section 6 hereof. Meters shall be read by City or an agent of City and records thereof shall be made available to Purchaser as may be reasonably required.
 - (b) All deliveries of power and energy hereunder shall be measured at the point of delivery.

SECTION 10. Accounts.

(a) City agrees to keep accurate records and accounts of the Project in accordance with the Uniform System of Accounts, separate and apart from its other accounting records. Such records and accounts shall be the subject of an annual audit by a firm of certified public accountants, experienced in electric utility accounting to be employed by City. The cost of the audit shall be part of the cost of administration within the meaning of Subsection 2(a) (4) of this Agreement. The transactions with respect to each Contract Year shall be subject to such an audit.

- (b) A copy of each such audit, including all recommendations of the accountants, shall be furnished by City to Purchaser promptly after the same shall have been prepared.
- (c) Purchaser agrees to keep accurate records and accounts of costs which it incurs in the course of operating and maintaining the Project. Purchaser agrees to supply the data, records and accounts necessary to make the determinations referred to in Subsection 4(a) (3) herein to the extent Purchaser is reasonably able to provide such data. All such data, records and accounts shall be the subject of an annual audit as provided in Subsections 10(a) and (b) herein.
- (d) Records and acounts required hereunder shall be available for inspection by City or Purchaser, as the case may be, during reasonable business hours.

SECTION 11. Arbitration.

- (a) Any matter described in Subsection 11(b) hereof, which is not settled by mutual agreement of Purchaser and City within sixty (60) days of having been presented in writing to either party, shall be submitted to a board of arbitrators. The board of arbitrators shall be composed of three (3) persons, one of whom shall be appointed by the City, one of whom shall be appointed by Purchaser, and the third person to be appointed by the two persons so appointed. In the event the two members cannot agree upon the appointment of a third person, then the third person shall be appointed by the Presiding Judge of the Circuit Court of the State of Oregon for the County of Multnomah. The procedure for arbitration shall be governed by the laws of the State of Oregon. Insofar as the parties hereto may legally do so, they agree to abide by the decision of the board.
- (b) The matters which may be arbitrated in accordance with Subsection 11(a) hereof shall consist of all matters pertaining to maintenance and operation of the Project, equipment renewal and replacement and charges to the Renewal and Replacement Fund, insurance to be carried in connection with the Project (which in no event shall be less than that required under the terms of the Trust Indenture), computation of the "Share the Savings Element", including without limitation the computation of the thermal unit adjusted capacity factor, reasonableness of City's costs of administration and of water quality testing and control and whether those costs were incurred in connection with the Project, and any other matter which Purchaser and City agree to refer to arbitration, except those matters which are by law vested exclusively in the discretion of City.
- (c) In the event this Section 11 or any paragraph, sentence, clause, or phrase thereof shall be adjudicated by a court of last resort and of competent jurisdiction to be invalid or illegal, the remainder of this Agreement shall be unaffected by such adjudication, and all other provisions of this Agreement shall remain in full force and effect as though this section or such part thereof so adjudicated to be invalid had not been included herein.
- SECTION 12. Insurance. City agrees to obtain and maintain in full force and effect during the term of this Agreement, adequate insurance with responsible insurers with policies payable to City for the benefit of City and Purchaser as their respective interests may appear, against:
 - (a) Physical loss or damage to the Project on replacement cost basis; and
 - (b) Any other risk mutually agreed upon by Purchaser and City.
- SECTION 13. Liability of Parties. City and Purchaser each assumes full responsibility and liability for the maintenance and operation of its respective properties, or the other's properties if expressly assumed in this Agreement, and shall indemnify and save harmless the other party from all liability and expense on account of any and all damages, claims or actions, including injury to or death of persons, arising from any act or accident in connection with the installation, presence, maintenance and operation of the property and equipment of the indemnifying party or for which the indemnifying party has assumed responsibility under this Agreement.

Purchaser shall maintain liability insurance covering the risks for which Purchaser is responsible under this Section in the principal amount of not less than \$30,000,000 for any one occurrence, less any applicable reasonable deductible, which principal amount shall be subject to reasonable increases to reflect social and economic changes. Purchaser's insurance policy shall name City, its officers, agents and employees as additional insureds, and Purchaser shall provide City with a Certificate of Insurance requiring ninety (90) days' advance notice to City in event of cancellation.

SECTION 14. Default.

- (a) In the event Purchaser shall default in its obligation to pay the Annual Purchase Price under this Agreement, City shall have the right to offset any amount owed Purchaser by City as a customer of Purchaser for electric power to the extent of such default. Default, for the purposes of this Subsection 14(a) is defined to be delinquency for more than thirty (30) days in payment of any sum payable under this Agreement.
- (b) Any waiver at any time by either party to this Agreement of its rights with respect to any default of the other party, or with respect to any other matter arising in connection with this Agreement, shall not be considered a waiver with respect to any subsequent default or matter.
- (c) Time is of the essence of this Agreement. Except as otherwise provided, any delinquency in performance of an obligation within a time specified herein shall be deemed a default.
- (d) In the event of a default by either Purchaser or City of any obligation under this Agreement, the non-defaulting party may seek any judicial remedy available at law or in equity without prior notice to the other party.

In the event judicial remedy is sought, the prevailing party shall be entitled to payment of its attorney fees within twenty (20) days of entry of final judgment or decree.

(e) In addition to any other remedy available either party shall have the right to obtain specific performance of any provision of this Agreement.

SECTION 15. Construction and Financing Contracts. Consulting Engineer is preparing the plans and specifications for the Project, copies of which shall be provided Purchaser. Purchaser shall have the right to approve the same, which approval will not be unreasonably withheld. If Purchaser disapproves any item, it shall do so within ten days of the receipt by it of the plan or specification. Purchaser shall state in writing its reasons for disapproval and what alternate is acceptable to it. Items not so identified shall be deemed approved. The Project shall be constructed at the lowest reasonable cost and in a prudent and skillful manner in accord with standards prevailing in the utility industry for similar projects, with applicable laws and in accordance with this Agreement. City, upon adoption of the plans and specifications, agrees that it will not (without the consent of Purchaser) modify, amend, or waive full compliance with, such plans and specifications, in any material respect, insofar as such plans and specifications pertain to the manufacture, installation, testing, and acceptance of all items of major equipment (turbines, generators, governors, and transformers).

SECTION 16. Completion of Construction. City agrees to proceed diligently with the financing and construction of the Project and, subject to Uncontrollable Forces, plans, but is not obligated, to complete the Project by January 1, 1982.

SECTION 17. Notices and Computation of Time. Any notice or demand, except those provided for in Section 5 hereof, by Purchaser under this Agreement to City shall be deemed properly given if mailed postage prepaid and addressed to the City Auditor, City Hall, Portland, Oregon 97201, and to United States National Bank of Oregon, Corporate Trusts and Agencies, P.O. Box 3850, Portland, Oregon 97208, (Trustee). Any notice or demand, except those provided for in Section 5 hereof, by City to Purchaser under this Agreement shall be deemed properly given if mailed postage prepaid and addressed to Portland General Electric Company, 121 S.W. Salmon Street, Portland, Oregon, 97204, Attention: President, and to United States National Bank of Oregon, Corporate Trusts and Agencies, P.O. Box 3850, Portland, Oregon 97208, (Trustee). In computing any period of time from such notice by either party, such period shall commence at 12:01 a.m. (midnight) on the date notice is mailed. The designations of the name and address to which any such notice or demand is directed may be changed at any time and from time to time by either party giving notice as above provided.

SECTION 18. Modification of Agreement Terms. It is recognized by the parties that, by virtue of the Bond Ordinance, this Agreement cannot be amended, modified, or otherwise altered by agreement of the parties in any manner that will impair or adversely affect the security afforded bondholders by the provisions of this Agreement for the purchase and sale of power for the payment of the principal of, and interest and premium, if any, on any bonds issued thereunder as they respectively become payable, so long as any of the bonds are outstanding and unpaid or until provision is irrevocably made for their payment.

SECTION 19. City's Bond Resolution and License. It is recognized by the parties that Purchaser in its operation of the Project must comply with the requirements of the Bond Ordinance, the Trust Indenture, the FERC License, and the WPRB permits, and it is therefore agreed that this Power Sales Agreement is made subject to the terms and provisions of the Bond Ordinance, the Trust Indenture, the FERC License and the WPRB permits. City has furnished or will furnish Purchaser a copy of each document above mentioned. Delivery of this Agreement is not complete until Purchaser has certified in writing that none of these documents materially impairs its rights under this Agreement. City shall not, without the written consent of Purchaser, amend, modify, or otherwise change the Bond Ordinance or the Trust Indenture if such amendment, modification, or change would be to the disadvantage of Purchaser.

SECTION 20. Conflict of Laws. The parties agree that this contract shall be governed by the laws of the State of Oregon.

SECTION 21. Assignment of Agreement. Purchaser may not assign its interest in this Agreement without the written consent of City, which consent will not be unreasonably withheld. Subject to such consent having been given, this Agreement shall inure to the benefit of, and shall be binding upon the respective successors and assigns of the parties to this Agreement. No assignment or transfer of this Agreement shall relieve the parties hereto of any obligation incurred hereunder.

APPROVED AS TO FORM:	
CHRISTOPHER P. THOMAS	
City Attorney	
	CITY OF PORTLAND, OREGON
(SEAL)	By NEIL GOLDSCHMIDT
	Mayor
ATTEST:	By FRANCIS J. IVANCIE Commissioner of Public Utilities
•	
By GEORGE YERKOVICH City Auditor	
	PORTLAND GENERAL ELECTRIC COMPANY
(SEAL)	By GLEN BREDEMEIER
	Vice President
ATTEST:	
	•

WARREN HASTINGS Asst. Secretary

EXHIBIT A

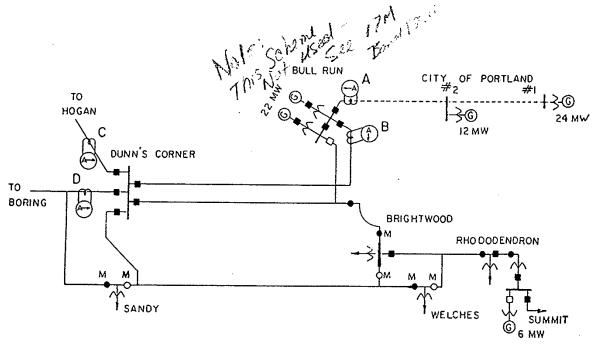
SYSTEM DESIGN DIAGRAM AND OPERATIONAL INSTRUCTIONS

Purchaser's system configuration, upon completion of the Project but prior to initial Date of Delivery, will be as described herein. Purchaser and City are aware that there is substantial electrical load within the counties of Clackamas and Multnomah, Oregon which requires import of electric energy from other sources in addition to any local generation. There is a minor load in Hood River County which is supplied by means of a 13kV feeder from Purchaser's Summit Substation. The only condition under which such minor load could be dispatched from the Project to such load would be during the period when Purchaser's power supply, including its Bull Run generation, is less than such load. Accordingly, Purchaser will have installed the necessary relay/computer equipment to sense and to respond to that situation. The directional power flows will be determined at the points shown in the diagram made a part hereof.

So long as any of the following conditions exist, the maximum Hood River County load, "L", will continue to be served from generation other than the Project:

- 1. $B A \ge L$
- 2. $C \ge L$
- 3. $D \ge L$

If none of the above exist, Purchaser's Summit generators will start automatically, in accordance with programming instructions implemented by Purchaser. If, for any reason, the Summit generators do not operate, Purchaser's operators will have been instructed to take immediate steps either to restore other sources of generation, or remove the Project from the line.



LEGEND

SWITCH -O- OPEN SWITCH -- CLOSED

BREAKER -O- OPEN

BREAKER -- CLOSED

M MOTOR OPERATED SWITCH

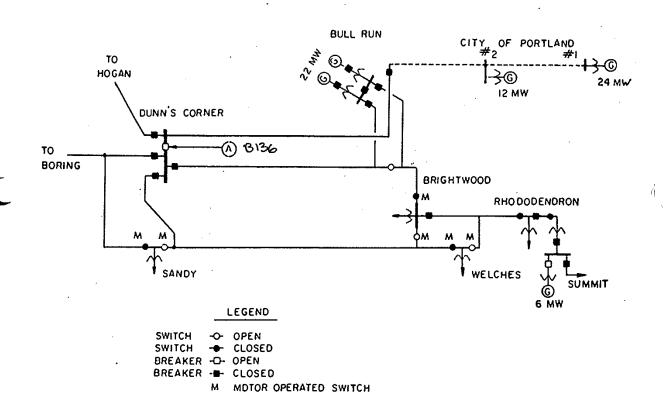
EXHIBIT A

AMENDMENT NO. 1

SYSTEM DESIGN DIAGRAM AND OPERATIONAL INSTRUCTIONS

Purchaser's system configuration, upon completion of the Project but prior to initial Date of Delivery, will be as described herein. Purchaser and City are aware that there is substantial electrical load within the counties of Clackamas and Multnomah, Oregon which requires import of electric energy from other sources in addition to any local generation. There is a minor load in Hood River County which is supplied by means of a 13 kV feeder from Purchaser's Summit Substation, which load is currently served by the line shown on the diagram below as going from Dunn's Corner to PGE's Bull Run plant and Summit.

Upon completion of the Project but prior to the initial Date of Delivery, Purchaser will have configured Dunn's Corner Substation as shown in the diagram below. Circuit breaker A shown as normally open, if installed, cannot be closed unless either (1) the Purchaser's generators are in operation at Summit, or (2) the City's generating plant is disconnected from the system.



Mud. 99-175-120

OFFICE OF

AUDITOR OF THE CITY OF PORTLAND

PORTLAND, DREGON 97204

ROOM SOS

COPY CERTIFICATE

STATE OF OREGON, County of Multnomah, CITY OF PORTLAND,

GEORGE YERROVICH Auditor of the City of Portland, do hereby certify that I have compared the following copy of ORDINANCE NO. 147507, passed by the Council April 11, 1979, being "An Ordinance authorizing an Agreement with Portland General Electric Company for the sale of power from the City of Portland Hydroelectric Project, and declaring an emergency",

with the original thereof, and that the same is a full, true and correct copy of such original

ORDINANCE NO. 147507

and of the whole thereof as the same appears on file and of record in my office, and in my care and custody.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the City of Portland affixed this 11th day of April, 1979.

George Yerkovich

Auditor of the City of Portland

Edna Cervera

Deputy

ORDINANCE No. 147507

An Ordinance authorizing an Agreement with Portland General Electric Company for the sale of power from the City of Portland Hydroelectric Project, and declaring an emergency.

The City of Portland ordains:

Section 1. The Council finds:

- (1) Pursuant to Ordinance 144455, the City applied to the Federal Energy Regulatory Commission for a license to construct and operate the Portland Hydroelectric Project.
- (2) The Commission has issued License #2821 to the City for the construction and operation of the Portland Hydroelectric Project, and the City will accept the License.
- (3) The City intends to finance the construction of the Project through the sale of tax-exempt revenue bonds, with the revenue to consist of proceeds from sale of the power.
- (4) Portland General Electric Company is willing to enter into an agreement with the City to purchase power from the Project in a manner that will provide sufficient revenues to make required bond payments and generate additional revenues to the City.

NOW, THEREFORE, the Council directs:

(a) The Mayor and Commissioner of Public Utilities shall execute a Power Sales Agreement with Portland General Electric Company, which Agreement shall be substantially in the form attached to the original only hereof as Exhibit A.

Section 2. The Council declares that an emergency exists because a delay in execution of the Power Sales Agreement will result in a delay in the sale of revenue bonds to finance the Portland Hydroelectric Project and a resultant delay in construction of the Project and in the availability of power from the Project; therefore, this ordinance shall be in force and effect from and after its passage by the Council.

Passed by the Council, APR 1 1 1979

Commissioner Ivancie March 8, 1979 CPThomas:mc Mayet of the City of Portland

Attest

Auditor of the City of Portland

DUPLICATE

22724

DEC 26 1985

AGREEMENT REGARDING PORTLAND HYDROELECTRIC PROJECT (BULL RUN RIVER) POWER SALES AGREEMENT (City of Portland/Portland General Electric Company)

This Agreement is between the City of Portland, Oregon (City) and Portland General Electric Company (Purchaser).

RECITALS:

- 1. The City has constructed the Portland Hydroelectric Project on the Bull Run River and has entered into a Power Sales Agreement with the Purchaser for the sale of power generated by the Project.
- 2. There have arisen a number of questions about the meaning of provisions of the Power Sales Agreement and about other matters related to the Project.
- 3. The City and the Purchaser have reached an agreement on the resolution of the questions and desire to put the agreement in written contract form.

AGREEMENT:

1. Obligation to Take Power: The parties agree to interpret Sections 3, 4(a)(2), 4(a)(3), and 5(a) of the Power Sales Agreement as requiring the Purchaser to pay the City each contract year for exactly 95 percent of the power the Project "could have generated" during that year. The amount of power the Project "could have generated" shall be the actual kilowatt hours measured as Project Output at the Bull Run substation. The Purchaser shall operate the Project at all times when water is available and the Project is operable subject to the constraints of (a) Section 5 of the Power Sales Agreement; (b) forced outages; and (c) periods when the Project is not in operation due to the need for preventative maintenance, to be agreed upon between the Purchaser and the City. This interpretation shall apply to contract years beginning September 1, 1984 and thereafter. The agreement contained in this section shall not in any way affect the Purchaser's obligation under Section 4(a)(1) of the Power Sales Agreement to pay to the City an amount equal to the Annual Power Cost for each Contract Year.

2. Normalized Average Cost Per Killowatt-Hour:

(a) Capacity factor: For contract years beginning September 1, 1984 and thereafter, the capacity factors used under Section 4(a) to compute "normalized average cost per kilowatt-hour" shall be 70 percent. This percentage shall apply for 10 years, at which time it shall be subject to adjustment under Section 11 of the Power Sales Agreement to reflect the national industry average for comparable units.

Any adjustment or continuation of the 70 percent figure at that time, and any adjustment or continuation of an adjusted or continued percentage thereafter, shall apply for additional 10 year increments.

- (b) Point of Measurement: The point of measurement used under Sections 2(m) and 4(a) shall be the Bull Run substation.
- (c) For all contract years, the parties shall compute "normalized average cost per kilowatt-hour" using a Levelized Annual Revenue Requirement method:
- 3. Section 4(a) (2) Payment: The parties agree that the annual proforms statement that the City prepares under Section 4(b) of the Power Sales Agreement shall include an estimate of the amount to be due from the Purchaser under Section 4(a)(2) of the Power Sales Agreement (Power Production Payment) for the following Contract Year. The parties further agree to interpret Section 4 of the Power Sales Agreement as not requiring monthly payment of the Power Production Payment during the Contract Year but rather as requiring billing and payment annually under Section 4(f) of the Power Sales Agreement.
- 4. <u>Completion of Construction</u>: The parties agree that the Completion of Construction date is February 17, 1982.
- 5. Payment for Power Taken: The parties agree that the Purchaser owes the City the amount of \$428,962.43 plus interest for power taken but not paid for after February 17, 1982 (contract year beginning September 1, 1981) through August 31, 1982. The parties also agree that the City owes the Purchaser a credit in the amount of \$64,550.54 plus interest for the contract year ending August 31, 1983. The parties agree that the net amount the Purchaser owes the City shall be calculated as follows:
- (a) The parties shall calculate interest on the principal amount of \$427,374.25 at one and one-half percent per month from December 29, 1982 to December 31, 1983.
- (b) The amount of \$64,550.54 shall be subtracted from the total principal and interest calculated under subparagraph (a).
- (c) The Purchaser shall pay to the City the balance calculated under subparagraph (b) plus interest thereon at one and one-half percent per month from December 31, 1983 until paid.

The parties agree that these payments shall complete all payments due from the Purchaser for power taken during those contract years and that no payments shall be due from the Purchaser for power not taken during those contract years. Payment shall be in the manner set out in Section 9 hereof.

6. Purchaser's Capitalized Construction Costs: The parties agree that the City shall pay to the Purchaser the sums of \$163,738.28 plus interest at nine percent per year from March 15, 1982 until paid and \$134,057.76 plus interest at nine percent per year from May 15, 1985 until paid as reimbursement for capitalized start-up costs incurred by the Purchaser prior to February 17, 1982. The parties agree that this payment shall complete all payments due for the Purchaser's start-up costs. Payment shall be in the manner set out in Section 10 hereof.

- 7. Metric Fasteners: The City hereby assigns to the Purchaser all of the City's rights under the Deposit Agreement dated September 5, 1980 between the City, the Bank of Tokyo, Ltd., and Nissho-Iwai American, including the City's right to receive funds from the Bank on the City's direction. The City shall execute any appropriate separate document as the Purchaser reasonably may require in order to effectuate this assignment. The Purchaser shall hold harmless and defend the City against any claim by Nissho-Iwai American, its parent or affillate corporations or entities, or its contractors or subcontractors, arising out of the Project or the matters covered by the Deposit Agreement.
- 8. Renewal and Replacement Fund: The parties agree that on expiration of the term of the Power Sales Agreement, the monies in the Renewal and Replacement Fund shall be divided equally between the City and the Purchaser, if the resultant of the aggregate Share the Savings element less any Share the Savings Element remaining to be offset is a positive number. If the resultant is a negative number, then sufficient monies in the Renewal and Replacement Fund shall be paid to the Purchaser to offset the negative number and the balance in the Fund shall be divided equally between the City and the Purchaser.
- 9. Manner of Payment. On a date mutually agreed to by the City and the Purchaser, but not later than June 30, 1986, the Purchaser shall pay to the City the net amount due under Section 5 hereof.
- 10. <u>Surplus Fund</u>. The parties agree that the City, at such time as the City in its sole discretion deems appropriate, may direct the Project Trustee to pay to the City up to the amount of \$2,361,194.56 from the Project Surplus Fund, to be used for purposes deemed appropriate by the City. The City shall direct the Trustee to apply the balance of the Surplus Fund as follows:
- (a) Pay to the Purchaser therefrom the amount due under Section 6 hereof; and
- (b) Apply the balance to pay principal on the bonds issued by the City to finance the Project including purchasing the bonds on the market, according to such instructions as the Purchaser in

Exercised funds

its sole discretion may determine appropriate, provided that the instructions are consistent with the requirements of the Internal Revenue Service for maintaining the tax exempt status of the bonds. The City shall execute such documents as may be necessary in order to communicate the necessary instructions to the Trustee.

by the Trustee to the City of up to the \$2,361,194.56 referred to in Section 10 hereof, the Purchaser shall be entitled to deduct each year from the amount due to the City under Section 4(a)(2) of the Power Sales Agreement (Power Production Payment) the amount needed to reimburse the Purchaser for that amount of debt service the Purchaser is paying under the second bond issue for the Project to cover the portion of the Annual Power Cost allocable to the up to \$2,361,194.56. In the event the Power Production Payment for any Contract Year is less than the amount of debt service the Purchaser is paying to cover the up to \$2,361,194.56, then the amount of the difference shall be an offset against the Power Production Payment for any future Contract Year or Years. The agreements contained in this section shall not in any way affect the Purchaser's obligation under Section 4(a)(1) of the Power Sales Agreement to pay to the City an amount equal to the Annual Power Cost for each Contract year.

. 12. Effective Date: This Agreement shall be effective on execution by the parties.

Abbroved ASTO FORM.

CITY ATTORNEY

CITY OF PORTLAND

By Nama Sest for Jewel Lansing

ATTEST:

Assistant Secretary

PORTLAND GENERAL ELECTRIC COMPANY

Profiden

STO FORM

158106

12-26-88

4/6/89 Existing Audit No 37333

ORDINANCE No. 158106

to be revised to 33049

An Ordinance authorizing an agreement with Portland General Electric . Company, and declaring an emergency.

The City of Portland ordains:

Section 1. The Council finds:

- 1. On April 12, 1979, the City and Portland General Electric Company (PGE) entered into a Power Sales Agreement providing for the sale by the City to PGE of electricity produced by the Bull Run Hydroelectric Project.
- There have been a number of disputes between the City and PGE about the interpretation of the Power Sales Agreement, and there are a number of ambiguities in the Agreement that the City and PGE wish to clarify.
- The City and PGE have reached an agreement resolving their disputes and clarifying the ambiguities.

. NOW, THEREFORE, the Council directs:

a. The Mayor and Auditor are authorized to execute on behalf of the City an agreement substantially similar in form to Exhibit "A" hereto.

Section 2. The Council declares than an emergency exists in the immediate execution of the agreement will allow the City to maximize its revenues therefrom; therefore, this Ordinance shall be in force and effect from and after its passage by by Council.

Passed by the Council, DEC 2 6 1985

Commissioner Bogle C.P. Thomas/jr.
December 19, 1985
BUC # 63700011

Jewel Lansing
Auditor of the City of Portland

Auditor of the City of Portland

Deputy

BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

CONFIDENTIAL EXHIBIT ICNU/103 RESPONSES TO ICNU DATA REQUESTS

June 20, 2016

(REDACTED VERSION)

May 9, 2016

TO: Tyler Pepple

Bradley Van Cleve

Davison Van Cleve, P.C.

FROM: Patrick Hager

Manager, Regulatory Affairs

PORTLAND GENERAL ELECTRIC UE 308 PGE Response to ICNU DR No. 008 Dated April 25, 2016

Request:



Response:

Attachment 008-A provides PGE's response.

Attachment 008-B provides an estimate from the City of Portland.

Attachments 008-A and 008-B are protected information subject to Protective Order No. 16-137.

Pages 2 – 4 of Exhibit ICNU/103 contain Protected Information Subject to Protective Order No. 16-137 and have been redacted in their entirety.

June 10, 2016

TO: Tyler Pepple

Bradley Van Cleve

Davison Van Cleve, P.C.

FROM: Patrick Hager

Manager, Regulatory Affairs

PORTLAND GENERAL ELECTRIC UE 308 PGE Response to ICNU DR No. 014 Dated June 7, 2016

Request:

Please provide a copy of any root cause analyses, or other similar documentation, for the major outage at Coyote Springs that occurred in 2013.

Response:

Attachments 014-A through 014-D provide a four-part, comprehensive root cause analysis performed by Alstom Power regarding the Coyote Springs steam turbine coupling failure that resulted in a 2013 extended forced outage. Attachment 014-E provides a summary analysis provided by the turbine manufacturer, General Electric.

Attachments 014-A through 014-E are protected information subject to Protective Order No. 16-137.

Pages 6 - 45 of Exhibit ICNU/103 contain Protected Information Subject to Protective Order No. 16-137 and have been redacted in their entirety.