BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

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In the Matter of

PACIFICORP, DBA: PACIFIC POWER,

2024 Transition Adjustment Mechanism

UE 420

CALPINE ENERGY SOLUTIONS, LLC'S HEARING EXHIBITS

Calpine Energy Solutions, LLC ("Calpine Solutions") respectfully submits its Hearing Exhibits. Based on the record and discovery provided at this time, Calpine Solutions may offer the exhibits listed below for admission to the record. Copies of the Hearing Exhibits are attached hereto, and confidential material is being filed and served via password-protected, encrypted zip file. Calpine Solutions reserves the right to supplement its proposed hearing exhibits with additional materials that may become available between now and the date of the hearing.

Pre-Filed Testimony and Exhibits

Testimony/Exhibit	Description	Date Filed or Submitted
Calpine Solutions/100-101	Opening Testimony and Exhibits of Kevin C. Higgins	June 23, 2023
Calpine Solutions/200	Rebuttal Testimony and Exhibits of Kevin C. Higgins	August 16, 2022

Hearing Exhibits

Testimony/Exhibit	Description	Date Filed or Submitted
Confidential Calpine Solutions/300	Transition Adjustment Sample Calculation from PacifiCorp's 15-	September 1, 2023
	Day Work Papers: Excerpt of	

	"Analysis" worksheet in confidential work paper "ORTAM24_Sch 30 Secondary HLH CONF"	
Confidential and Redacted	PacifiCorp's Confidential and	September 1, 2023
Calpine Solutions/301	Redacted Response to Calpine	
	Solutions' Data Request No. 2.1	
Calpine Solutions/302	Order No. 08-543, Docket No. UE 399	September 1, 2023

DATED: September 1, 2023.

RICHARDSON ADAMS, PLLC

<u>/s/ Gregory M. Adams</u> Gregory M. Adams (OSB No. 101779) Peter J. Richardson (OSB No. 066687) Richardson Adams, PLLC 515 N. 27th Street Boise, Idaho 83702 Telephone: (208) 938-2236 Fax: (208) 938-7904 greg@richardsonadams.com peter@richardsonadams.com

Of Attorneys for Calpine Energy Solutions, LLC

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on September 1, 2023, I electronically e-filed public portions of Calpine Energy Solutions, LLC's Hearing Exhibits with the Public Utility Commission of Oregon's Filing Center and filed and served the confidential exhibit(s) via e-mail of password-protected, encrypted ZIP file on the following parties qualified to receive such materials under General Protective Order No. 16-128:

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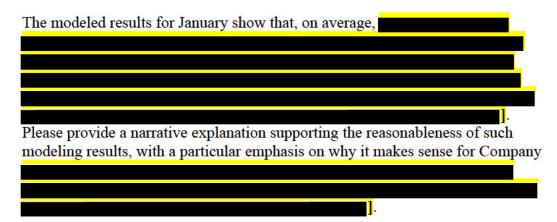
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Dated: September 1, 2023

By: <u>/s/ Gregory M. Adams</u> Gregory M. Adams Calpine Solutions Exhibit 300 is subject General Protective Order No. 16-128 and is provided only to persons qualified thereunder UE 420 / PacifiCorp August 31, 2023 Calpine Data Request 2.1

Calpine Data Request 2.1

CONFIDENTIAL REQUEST - Please refer to confidential work paper "ORTAM24_Sch 30 Secondary HLH CONF", worksheet "Analysis," rows 7-120.



Calpine Solutions has submitted this data request subject to the General Protective Order because it refers to material in confidential work papers, but requests that PacifiCorp provide a public copy of its response that only redacts the information that PacifiCorp believes to be qualified for protection, as well as non-redacted copy made available to parties qualified under the applicable protective order.

Confidential Response to Calpine Data Request 2.1

The "Analysis" worksheet in confidential work paper "ORTAM24_Sch 30 Secondary HLH CONF" is an analysis that compares two net power costs (NPC) forecasts. Between these two NPC forecasts, the change made is a change to the hourly annual profile of Company retail load, which in aggregate is a decrease to Company retail load. With this as context, the NPC forecast which has less retail load shows a lower NPC and this is reasonable.

However, by nature of the Company's NPC forecasting, each of the two NPC forecasts are separate counterfactual analyses and each counterfactual analysis represents system dispatch that is disconnected (by nature of them being separate) from the other counterfactual analysis. Specifically, the production cost model used to create these counterfactual analyses (NPC forecasts) has perfect foresight, perfect efficiency, and optimizes the entire annual system dispatch in one stage (no multiple time horizons) and in one go (one single model run looking at the entire year all at once). No hour or month can be considered in isolation, and each hour of the year is impacted by all hours of the year because the entire year is constrained simultaneously,

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.

Because of this type of optimization (analysis), a butterfly effect¹ is observed for each counterfactual change and under this paradigm it is not unexpected for the complete redispatch of a counterfactual system to realize both increases and decreases in market and/or generation activity resulting from a change (aggregate decrease) in the annual customer load profile.

For example, in the 2023 transition adjustment mechanism (TAM), the 2022 TAM, the 2021 TAM, going back a decade to the 2013 TAM and even further back, similar set of counterfactual direct access analyses have resulted in a subset of generation increasing during certain months in response to a reduction in Company retail load.

Furthermore, in the Reply Testimony / July 2023 NPC Update in this 2024 TAM, the Company proposed a modeling change titled "Thermal Generation Marginal Costs" which renders obsolete the specific direct-access-related megawatt-hour (MWh) variances in the confidential work papers provided with the Company's response to TAM Support Set 3 (15-calendar day work papers) and the confidential work papers provided with the Company's response to TAM Support Set 4 (30-calendar day work papers). Details on this modeling change is discussed in the reply testimony of Company's witness, Ramon J. Mitchell, specifically Exhibit PAC/400, page 12, lines 14 through 20.

Confidential information is designated as Protected Information under Order No. 16-128 and may only be disclosed to qualified persons as defined in that order.

¹ The butterfly effect is a phenomenon wherein a small change in starting conditions can lead to vastly different outcomes.

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.

ENTERED 11/12/08

BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UE 199

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In the Matter of
PACIFICORP, dba PACIFIC POWER,
2009 Transition Adjustment Mechanism
Schedule 200, Cost-Based Supply Service.

ORDER

DISPOSITION: STIPULATION ADOPTED

I. INTRODUCTION

On April 1, 2008, PacifiCorp, dba Pacific Power ("Pacific Power" or the "Company") filed revised tariff sheets for its 2009 Transition Adjustment Mechanism (TAM), to be effective January 1, 2009. The purpose of the TAM filing is to update Net Power Costs (NPC) to set transition adjustments for the Company's Oregon customers who may choose direct access service in the November 2008 open enrollment window.

Concurrently with its TAM application, Pacific Power filed its Renewable Adjustment Clause (RAC), docket UE 200. The subject matters of the two proceedings overlap in material aspects.

In its 2009 TAM filing, Pacific Power estimated total forecasted normalized system-wide NPC for the test period (12 months ending December 31, 2009) of about \$1.129 billion. That amount is approximately \$148.9 million higher than the \$980.2 million included in rates set in Pacific Power's 2008 TAM proceeding (Docket UE 191).

On an Oregon-allocated basis the amount was about \$41.2 million higher than the \$247.4 million NPC currently included in Pacific Power's Oregon rates. That amount would result in an overall increase its Oregon rates of about 4.4 percent.

On July 25, 2008, Pacific Power filed an update and corrections to its April 1, 2008 filing. The updates and corrections resulted in an increase in the Company's forecasted normalized NPC for the calendar year 2009 on an Oregonallocated basis to \$304.3 million, an increase of \$15.7 million from the earlier filing.

The updated amount would result in an overall increase to Oregon rates of about 6 percent.

A prehearing conference was held on April 25, 2008 and a schedule adopted. The target date for a Commission decision was set for October 24, 2008.

Testimony was filed by Pacific Power, the Staff of the Public Utility Commission of Oregon (Staff), the Industrial Customers of Northwest Utilities (ICNU) and Sempra Energy Solutions LLC (Sempra).

The parties convened a settlement conference on August 15, 2008, and the settlement discussions continued on August 19, 2008. All parties participated in the settlement discussions. As a result of their settlement discussions, the parties reached a comprehensive settlement in this docket.

On September 4, 2008, the parties filed their Stipulation and joint testimony in support of the Stipulation. Parties to the Stipulation (Joint Parties) are Pacific Power, Staff, ICNU, Sempra and the Citizens' Utility Board of Oregon (CUB). On October 29, 2008, Pacific Power submitted an amended version of the Stipulation. The changes to the Stipulation are not substantive; the only changes are to the scheduled dates, reflecting a delay in the issuance of the final order in UE 200. The amended Stipulation is attached to this order. The parties' signatory pages to the original Stipulation are attached.

II. STIPULATION

The net effect of the settlement is to reduce Pacific Power's proposed increase in NPC from \$56.9 million to \$34.2 million (on an Oregon-allocated basis). That amount will be updated for certain NPC elements on November 7, 2008, and November 14, 2008, with a contract "lock-down" date of November 1, 2008. For rate design purposes, the final NPC will be decreased by \$10.2 million to account for increased revenues due to forecast sales growth from 2007 to 2009. The resulting rate increase is expected to be about 2.4 percent. The effective date of the new rates will be January 1, 2009.

Attached to the Stipulation are exhibits that show the calculation of: the NPC increase (Exhibit A); the rate spread (Exhibit B); the adjustment for sales growth (Exhibit C); and the 2009 energy forecast by rate schedule (Exhibit D).

The Joint Parties propose to spread the rate increase to each rate schedule, based on the ratio of each schedule's present Schedule 200 (Cost-Based Supply Service) revenues to total Schedule 200 present revenues. The TAM Adjustment Rates in cents per kilowatt hour will be calculated by dividing each rate schedule's total allocated TAM Revenue Adjustment by the forecast 2009 energy for that rate schedule.

The November Updates include the following:

a. The Company will update its NPC on November 7, 2008, for (1) the September 30, 2008, forward price curve for electricity and natural gas; and (2) contracts executed on or before November 1, 2008. (Such contracts include long-term and short-term wholesale electric contracts and natural gas supply contracts.)

b. The Company will update its NPC on November 14, 2008, using the forward price curve for electricity and natural gas prices developed on November 4, 2008. The Company will use the new forward price curve to reshape hydro energy in its Generation and Regulation Initiatives Decision Tools (GRID) model.

The Joint Parties agree there is no cap on the November Updates.

The Joint Parties agree to defer the resolution of certain issues related to Pacific Power's Glenrock and Rolling Hills wind resources to the RAC proceeding (UE 200). Although Pacific Power objects to any such adjustment, the Joint Parties understand that the Commission may order in the RAC proceeding that the capacity factors or generation profiles be changed through an NPC adjustment in this proceeding in the November updates.

The Joint Parties agree that the Seven Mile Hill II and Glenrock III wind resources will remain in the NPC dispatch stack for purposes of calculating the November 2008 TAM updates. The Joint Parties further agree that the Company will exclude the non-NPC related costs of these two resources from the RAC for 2009. Pacific Power will file deferral applications, such that the deferral will be effective January 1, 2009, or when the resource is on line, whichever comes later.

Pacific Power agrees to not file for deferred accounting for 2009 for the fixed costs of either the Chehalis or Lake Side power plants. The Joint Parties agree that the Chehalis power plant should not be reflected in the Company's November updates.

The Joint Parties agree to modify the calculation of the Transition Adjustment for direct access in two ways: (1) Pacific Power will relax the market cap limitations in the GRID model by 15 MW at Mid-Columbia and 10 MW at COB to determine the value of the freed-up power; and (2) any remaining monthly thermal generation that is backed down for assumed direct access load will be priced at the simple monthly average of the COB price, the Mid-Columbia price, and the avoided cost of thermal generation as determined by GRID.

The Joint Parties agree that any party may raise the issue of forced outage rates for hydroelectric generating units in Docket UM 1355. If the Commission has not resolved this issue prior to Pacific Power filing its next general rate case, the Company will raise the issue in its rate case.

The Stipulation includes provisions relating to certain elements in Pacific Power's future TAM proceedings. If the parties cannot agree regarding the elements of TAM updates, revenue growth adjustments, and filing requirements, Pacific Power will initiate a proceeding before the Commission to resolve issues.

Pacific Power agrees to provide access to its GRID model to parties who enter into a confidentiality agreement or are subject to a protective order.

Pacific Power commits itself to provide workpapers for its original TAM filing and updates. Pacific Power agrees to provide parties a "forty-year hydro data set" applicable to the test year in the TAM proceeding and the data necessary to calculate forced outages using a weekday/weekend split.

III. DISCUSSION

In their testimony, the Joint Parties explain and defend the terms of their Stipulation. They identify issues not resolved in the Stipulation, including issues deferred to Docket UE 200, the RAC proceeding. They explain the November 2008 update factors and how the deferred issues will be accounted for in the November updates. They describe their proposed rate design and set out their intentions for future TAM proceedings.

As noted by the Joint Parties, in its filings Pacific Power requested an increase of about \$56.9 million. In their Stipulation, the Joint Parties agree to a nominal increase of \$34.2 million, to be adjusted downward by \$10.2 million to reflect load growth. They do not explain what adjustments were made to reach the amount of their proposed increase.

The difference in the amount requested by Pacific Power and the amount adopted by the Joint Parties in their Stipulation is \$22.7 million, with the additional \$10.2 million to account for load growth. In their joint testimony the Joint Parties do not address the derivation of these figures.

In its direct testimony, Staff proposed to reduce Pacific Power's request by \$18.4 million, including a reduction of \$12.6 million to account for customer load growth. In its surrebuttal testimony, Staff proposed to increase one of its proposed adjustments by about \$920 thousand.

Staff's proposed adjustments included the following:

(1) A reduction of \$12,566,029 to account for load growth;

(2) A reduction of \$524,595 to account for changes in net ancillary service revenue;

(3) A reduction of \$623,477 to account for increased revenue associated with the Little Mountain gas facility steam sales;

(4) A reduction of \$189,093 for the wind integration charge associated with the Pacific Power wind storage contracts;

(5) A reduction of \$800,605 for the wind integration charge associated with Pacific Power owned wind facilities;

(6) A reduction of \$2,922,698 to account for the new forced outage rate methodology for hydro facilities; and

(7) A reduction of \$789,034 to account for a change in capacity factor for the Rolling Hills wind generation project.

In its rebuttal testimony Staff proposed to increase the Rolling Hills capacity factor adjustment to \$1.7 million, "taking into account [Pacific Power's] updated GRID model."

In its direct testimony, ICNU proposed 19 adjustments to Pacific Power's GRID study. ICNU found that Pacific Power had overstated its total company NPC by \$55.7 million and recommended a reduction in the allocation to Oregon of \$12.8 million. ICNU proposed an additional reduction of \$12.6 million to account for load growth.

In its direct testimony, Sempra addresses the calculation of the Transition Adjustment as applied to Pacific Power's Schedules 294 (Transition Adjustment) and 295 (Transition Adjustment Opt Out). Sempra recommends that the Commission direct Pacific Power to calculate the Schedules 294 and 295 adjustments "in a manner that applies market prices to <u>all</u> megawatt-hours associated with the decrement of direct access load being evaluated.

The adjustment for load growth (\$10.2 million) is less than the \$12.6 million proposed by Staff and ICNU, but well within the range of reasonable outcomes for settling such an issue. We approve this provision of the Stipulation.

In all other respects the terms of the Stipulation explain and improve the TAM process. The stipulation is in the public interest and should be approved.

ORDER NO. 08-543

ORDER

IT IS ORDERED that:

- 1. Advice No. 08-006, filed by PacifiCorp, dba Pacific Power, on April 1, 2008, is permanently suspended.
- 2. The Stipulation, as amended by and between PacifiCorp, dba Pacific Power, the Public Utility of Oregon Commission Staff, the Industrial Customers of Northwest Utilities, Sempra Energy LLC and the Citizens' Utility Board of Oregon, is approved and is attached as Appendix A.
- 3. Pacific Power shall update its net power costs (NPC) to reflect the provisions of the Stipulation to establish its Transition Adjustment Mechanism NPC for the calendar year 2009, to tariffs to be effective January 1, 2009.

NOV 1 2 2008 Made, entered, and effective Lee Beyer John Savage Chairman Commissioner Ray Baum Commissioner

A party may request rehearing or reconsideration of this order pursuant to ORS 756.561. A request for rehearing or reconsideration must be filed with the Commission within 60 days of the date of service of this order. The request must comply with the requirements in OAR 860-014-0095. A copy of any such request must also be served on each party to the proceeding as provided by OAR 860-013-0070(2). A party may appeal this order by filing a petition for review with the Court of Appeals in compliance with ORS 183.480-183.484.

ORDER NO. 08-543

	1	BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON		
	2	UE 199		
	3	In the Matter of: AMENDED STIPULATION		
	4	PACIFICORP, dba PACIFIC POWER		
	5 6	2009 Transition Adjustment Mechanism Schedule 200, Cost-Based Supply Service		
	7	This Stipulation is entered into for the purpose of resolving the issues among the		
	8	parties to this Stipulation related to PacifiCorp's (or the "Company") proposed transition		
	9	adjustment mechanism ("TAM") for direct access that updates the Company's net power costs		
	10	("NPC") in rates. The Stipulation also addresses certain issues in the Company's Renewable		
	11	Adjustment Clause ("RAC") case, Docket No. UE 200.		
	12	PARTIES		
	13	1. The parties to this Stipulation are PacifiCorp, Staff of the Public Utility		
	14	Commission of Oregon ("Staff"), the Citizens' Utility Board ("CUB"), the Industrial Customers		
	15	of Northwest Utilities ("ICNU"), and Sempra Energy Solutions LLC ("Sempra") (together, the		
	16	6 "Parties").		
	17	BACKGROUND		
	18	2. On April 1, 2008, PacifiCorp filed revised tariff sheets for Schedule 200:		
	19	PacifiCorp's 2009 Transition Adjustment Mechanism, to be effective January 1, 2009. The		
3	20	purpose of the TAM filing is to update NPC for 2009 and to set transition adjustments for		
	21	Oregon customers who choose direct access in the November 2008 open enrollment window.		
	22	The Company's RAC was filed concurrently with the TAM filing.		
	23	3. The April 1, 2008 TAM filing reflected total forecasted normalized system-wide		
	24 NPC for the test period (12 months ended December 31, 2009) of approximately \$1.129			
	25	billion. This amount is approximately \$148.9 million higher than the \$980.2 million included in		
	26	rates through the 2008 TAM (Docket UE 191). On an Oregon-allocated basis, the forecasted		
F	age	AMENDED STIPULATION: UE 199		
		APPENDIX PAOE OF		

1	normalized NPC for 2009 are approximately \$288.6 million. This is approximately		
2	\$41.2 million higher than the \$247.4 million NPC currently included in Oregon rates. This		
3	amount would result in an overall increase to Oregon rates of approximately 4.4 percent.		
4	4. On July 25, 2008, the Company filed an update and corrections to the April 1,		
5	2008 filing. The updates and corrections increased the Company's forecasted normalized		
6	NPC for the calendar year 2009 on an Oregon-allocated basis to \$304.3 million. This reflects		
7	an increase of \$15.7 million from the April filing of \$288.6 million. This updated amount would		
8	result in an overall increase to Oregon rates of approximately 6 percent.		
9	5. The Parties convened a settlement conference on August 15, 2008. The Parties		
10	continued the settlement conference via conference call on August 19, 2008. All parties to the		
11	docket participated in the settlement conferences.		
12	AGREEMENT		
13	6. As a result of the settlement conferences, the Parties have reached a		
14	comprehensive settlement in this case. The net effect of the Stipulation reduces PacifiCorp's		
15	proposed increase in NPC to \$34,216,174 on an Oregon-allocated basis. This amount will be		
16	updated for the NPC elements described in this Stipulation on November 21, 2008, and		
17	December 2, 2008, with a contract lock-down date of November 14, 2008 (collectively the		
18	"November/December Updates.") For purposes of designing rates, the final increase to NPC		
19	will be decreased by \$10,216,174 to account for increased revenues due to forecast sales		
20	growth from 2007 to 2009. The overall rate increase prior to the November/December		
21	Updates resulting from this Stipulation is expected to be approximately 2.4 percent. The		
22	Parties retain all procedural and substantive rights to challenge the November/December		
23	Updates in the compliance filing in the proceeding. The effective date of the new rates will be		
24	January 1, 2009.		
25	7. The Parties agree to submit this Stipulation to the Commission and request that		
26	the Commission approve the Stipulation as presented. The Parties agree that the		

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adjustments and the rates resulting from their application are sufficient, fair, just, and

2 reasonable.

8. Exhibit A to this Stipulation contains the calculation that will be used to determine 3 the NPC increase in this docket, the Total Company NPC approved in this docket, and the 4 Oregon-allocated NPC baseline in rates resulting from this docket. Exhibit B shows the 5 calculation that will be used to determine the spread of the stipulated rate increase to rate 6 schedules and to determine the TAM rate adjustments by rate schedule. Exhibit C shows the 7 calculation of the adjustment for revenues resulting from sales growth. Exhibit D shows the 8 calculation that was used to determine the 2009 energy forecast by schedule and the 9 10 Schedule 200 present revenues. Calculation of NPC Increase and Baselines: The Parties agree to a TAM NPC 11 9. increase for 2009 that is calculated as described below and as shown in Exhibit A to this 12 Stipulation: 13 Step One: Calculate the Adjusted Oregon-allocated NPC Baseline in Rates for the July 2008 14 TAM filing by adding \$34,216,174 to the Oregon-allocated NPC Baseline in Rates from UE 15 191 of \$247,421,525 to obtain the Adjusted Oregon-allocated NPC Baseline in Rates of 16

17 \$281,637,699.

Step Two: Calculate the Final Oregon-allocated NPC Increase and 2009 Baseline in Rates: 18 Using the December 2, 2008 Update, calculate the difference between the November Oregon-19 allocated NPC and the July 2008 Oregon allocated NPC. Add this difference (either positive 20 or negative) to the stipulated \$34,216,174 increase. The result is the Final Oregon-allocated 21 NPC Increase. Next, add the difference to the Adjusted Oregon-allocated NPC Baseline in 22 Rates of \$281,637,699 to obtain the Final Oregon-allocated 2009 NPC Baseline in Rates. 23 The Final Oregon-allocated 2009 NPC Baseline in Rates will be compared against the 2010 24 Oregon-allocated NPC Baseline in Rates to determine the NPC increase/decrease in the 2010 25 TAM proceeding. 26

Page 3 - AMENDED STIPULATION: UE 199

Nothing in this paragraph shall be construed as eliminating the need for an adjustment to 1 the 2010 NPC increase/decrease to capture the effects of revenues resulting from sales 2 3 growth if the 2010 TAM proceeding is filed outside of a general rate case proceeding.

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10. Adjustment for Revenues Resulting from Sales Growth: The Parties agree that 5 the Final Oregon-allocated NPC Increase will be reduced by \$10,216,174 as shown on Exhibit 8. This adjustment is computed as shown in Exhibit C. 6

11. <u>Revenue Allocation and Rate Design</u>: The Parties agree that the Final Oregon-7 allocated NPC Increase and the adjustment for revenues resulting from sales growth will be 8 spread to rate schedules through changes to Schedule 200 rates and the adjustments to 9 Schedule 200 rates (TAM Adjustment Rates) will be calculated based on a forecast 2009 rate 10 design test year. The 2009 forecast energy by rate schedule is shown in column 3 of Exhibit 11 B and was determined by spreading the 2009 forecast energy (MWh) by class to each rate 12 schedule by class, voltage level, and rate tier based on the forecast 2007 billing determinants 13 from the last general rate case, Docket UE 179. This calculation is shown in Exhibit D and 14 15 summarized in column 3 of Exhibit B. The 2009 forecast energy by schedule has been multiplied by the present Schedule 200 rates to calculate the present Schedule 200 revenues. 16 This calculation is shown in Exhibit D and summarized in column 4 of Exhibit B. The Final 17 18 Oregon-allocated NPC Increase and the agreed adjustment for revenues resulting from sales growth of (\$10,216,174) will be spread to each schedule based on the ratio of each schedule's 19 present Schedule 200 revenues to total Schedule 200 present revenues. Columns 5, 6, and 7 20 of Exhibit B show the spread of these three elements. Column 6 currently shows a zero 21 adjustment, but will be updated with the November/December Updates. The three revenue 22 elements will then be added by rate schedule to obtain a total TAM Revenue Adjustment by 23 rate schedule. The TAM Adjustment Rates in cents per kilowatt-hour will then be calculated 24 by dividing each schedule's total TAM Revenue Adjustment by the forecast 2009 energy for 25 that rate schedule. This process is shown in Exhibit B, although the rates in the Exhibit are 26

- AMENDED STIPULATION: UE 199 Page 4

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not final and are subject to change with the November/December Updates as set forth in this
Stipulation. The final TAM adjustment rates calculated including the November/December
Updates will be added to the present Schedule 200 rates to arrive at the final Schedule 200
rates for this docket.

5

12. Scope of November/December Updates:

The Company will update its NPC on November 21, 2008, for only: (1) 6 a. the November 4, 2008 forward price curve for electricity and natural gas; and (2) contracts 7 executed on or before November 14, 2008. These contracts include: (a) wholesale electric 8 sales and purchase contracts that are for long term firm sales and purchases, short term firm 9 sales and purchases, or exchanges and storage with and without energy or capacity prices; 10 and (b) natural gas sales and purchases contracts. These transactions may have fixed prices 11 or prices linked to market indexes. They may require physical deliveries or be settled 12 financially (e.g., swaps). 13

b. The Company will update its NPC on December 2, 2008 using the
forward price curve for electricity and natural gas prices developed on November 17, 2008.
The Company will reshape hydro energy in the GRID model resulting from the use of the new
forward price curve. The Company agrees to provide work papers and other documentation
supporting the changes to GRID inputs resulting from the forward price curve comparable to
those provided for the July update, with the additional detail provided in the response to Staff
on-site data request 1 for electric swaps.

c. The amount of the November/December Updates may be positive or
negative, depending on whether the November/December Updates result in an increase or
decrease to NPC. The Parties agree that there is no cap on the November/December
Updates. The Parties reserve their rights to challenge: (1) the forward price curve for
electricity and natural gas developed on November 17, 2008; (2) new contracts included in the

Page 5 · AMENDED STIPULATION: UE 199

many /

November/December Updates; and 3) whether any updates are consistent with this
 Stipulation.

d. PacifiCorp agrees to provide information on new contracts that will be
included in the November/December Updates as soon as practical after execution. The
Company will track the contracts and produce them in groups as their total number or value
become material. For short-term firm contracts, the Company agrees to provide detail
comparable to the first supplemental response to ICNU data request No. 18.24.

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13. Wind Resource-related Issues:

The Parties agree to litigate the adjustments associated with the Rolling a. 9 Hills and Glenrock resources in the RAC proceeding. Although PacifiCorp objects to such an 10 adjustment, the Parties understand that the Commission may order in the RAC proceeding 11 that the capacity factors or generation profiles be changed through an NPC adjustment in this 12 proceeding in the November/December Updates. The Parties agree that the only capacity 13 factors and generation profiles or both that are subject to the November/December Updates 14 are those ordered by the Commission. The Parties agree they will not further advocate for 15 updates to the 2009 TAM for capacity factors or generation profiles of other wind resources. 16

The Parties agree that the Seven Mile Hill II and Glenrock III resources b. 17 will remain in the NPC dispatch stack for purposes of calculating the November 2008 TAM 18 updates. The Parties further agree that the Company will exclude the non-NPC related costs 19 of these two resources from the RAC for 2009. The Parties agree that PacifiCorp may 20 request and no party will oppose deferred accounting for each resource. PacifiCorp will file 21 deferral applications such that the deferral would be effective January 1, 2009 or when the 22 resource is on line, whichever comes later. The applications would request deferral of (1) the 23 revenue requirement associated with the non-NPC related costs of the resource and (2) the 24 decrease to NPC that is associated with the resource as reflected in the November/December 25 Updates. The decrease to NPC would be reflected in the deferral so that the Company could 26 - AMENDED STIPULATION: UE 199 Page 6

THENDER

later seek to recover the associated NPC decrease included in the 2009 TAM should the 1 Commission later disallow costs of the resource in a prudence determination. No Party 2 waives any arguments or rights during the amortization phase of such deferred accounting. 3 14. Deferral Applications for Lake Side and Chehalis: The Company agrees to not 4 file for deferred accounting for 2009 for the fixed costs of either the Lake Side power plant or 5 the Chehalis power plant or both. Likewise, the Parties agree that the Chehalis power plant 6 should not be reflected in the Company's November/December Updates. 7 15. Transition Adjustment: The Parties agree to modify the calculation of the 8 Transition Adjustment for direct access in two ways: (1) the Company will relax the market 9 cap limitations in the GRID model by 15 MW at Mid-Columbia and 10 MW at COB to 10 determine the value of the freed up power; and (2) any remaining monthly thermal generation 11 that is backed down for assumed direct access load will be priced at the simple monthly 12 average of the COB price, the Mid-Columbia price, and the avoided cost of thermal generation 13 as determined by GRID. The monthly COB and Mid-Columbia prices will be applied to the 14 heavy load hours or light load hours separately. The existing balancing account mechanisms 15 will remain in effect. 16 16. Hydro Forced Outage Rate: Any Party may raise the issue of forced outage 17 rates for hydroelectric generating units in Docket UM 1355. If the Commission has not 18 resolved this issue prior to the Company's filing of its next general rate case, the Company will 19 20 raise the issue in the rate case. 17. Future Stand-alone TAM Filings: 21 Adjustment for Revenue Growth: The Company agrees that its future a. 22 stand-alone TAM filings should be designed to recover the Company's Oregon-allocated NPC. 23 including consideration of increased/decreased revenues due to load growth/loss. 24

25b.Workshops:PacifiCorp will convene a series of workshops prior to filing26its next general rate case in Oregon for the purpose of seeking consensus on the specific

Page 7 - AMENDED STIPULATION: UE 199

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PRIMARY PROPERTY

1	elements of any future TAM proceeding including, but not limited to, cost elements to be
2	included in the initial filing and each update, filing requirements for the content and timing of
3	workpapers, and the mechanism for implementing Section 18.a above. These workshops will
4	be convened to provide sufficient time for the Company to consider incorporating
5	recommendations into its next general rate case filing. PacifiCorp agrees that if the Parties
6	cannot reach consensus on the elements of TAM updates, revenue growth adjustments, and
7	filing requirements in the workshops, the Company will initiate a proceeding before the
8	Commission to resolve these issues. The Company will initiate this proceeding by January
9	15, 2009 to provide the Commission the ability to resolve the proceeding prior to June 1,
10	2009, or in time to be implemented in the Company's first update for the 2010 TAM.
11	c. <u>GRID Model</u> : The Company will provide access to the GRID model to
12	Parties when it makes its initial TAM filing or general rate case, provided that the Party has
13	entered into a confidentiality agreement with the Company applicable to the GRID model or is
14	subject to a Protective Order applicable to the relevant TAM proceeding or general rate case.
15	d. <u>Workpapers</u> : The Company commits to providing workpapers for its
16	original TAM and updates. These workpapers will include all input files the Company relied
17	upon in preparing the final GRID run used in the filing. The Parties will endeavor to define this
18	concept with more specificity in the TAM workshops. The Company agrees to provide Staff
19	and intervenors that have executed a relevant confidentiality agreement with the Company or
20	are subject to a relevant Commission Protective Order with the following data that the
21	Company has used in proceedings in other states: a forty-year hydro data set applicable to
22	the test year in the TAM proceeding and the data necessary to calculate forced outages using
23	a weekday/weekend split. The Company's agreement to provide this data does not imply its
24	agreement to adjustments proposed by Staff or intervenors relying upon this data.
25	18. Tariff: Upon approval of this Stipulation and after the Company files its
26	November/December Updates, PacifiCorp will file revised Schedule 200 rates and revised
Page 8	AMENDED STIPULATION: UE 199

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s.

effective January 1, 2009, reflecting rates designed as agreed in this Stipulation. 2 19. This Stipulation will be offered into the record of this proceeding as evidence 3 pursuant to OAR 860-014-0085. The Parties agree to support this Stipulation throughout this 4 proceeding and any appeal, (if necessary) provide witnesses to sponsor this Stipulation at the 5 hearing, and recommend that the Commission issue an order adopting the settlements 6 contained herein. 7 20. If this Stipulation is challenged by any other party to this proceeding, the Parties 8 agree that they will continue to support the Commission's adoption of the terms of this 9 Stipulation. The Parties agree to cooperate in cross-examination and put on such a case as 10 they deem appropriate to respond fully to the issues presented, which may include raising 11 issues that are incorporated in the settlements embodied in this Stipulation. 12 21. The Parties have negotiated this Stipulation as an integrated document. If the 13 Commission rejects all or any material portion of this Stipulation or imposes additional material 14 conditions in approving this Stipulation, any Party disadvantaged by such action shall have the 15 rights provided in OAR 860-014-0085 and shall be entitled to seek reconsideration or appeal 16 of the Commission's Order. 17 22. By entering into this Stipulation, no Party shall be deemed to have approved, 18 admitted, or consented to the facts, principles, methods, or theories employed by any other 19 Party in arriving at the terms of this Stipulation, other than those specifically identified in the 20 body of this Stipulation. No Party shall be deemed to have agreed that any provision of this 21 Stipulation is appropriate for resolving issues in any other proceeding, except as specifically 22

transition adjustment Schedules 294 and 295 as a compliance filing in Docket UE 199,

23 identified in this Stipulation.

24 23. This Stipulation may be executed in counterparts and each signed counterpart
 25 shall constitute an original document.

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Page 9 - AMENDED STIPULATION: UE 199

ORDER NO. 08-543

1	This Stipulation is entered into by each pa	arty on the date entered below such Party's
2	signature.	
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ORDER NO. 08-543

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Page 1	- STIPULATION: UE 199	

EXHIBIT A UE 199 AMENDED STIPULATION

Allocated NPC to Oregon for 2009 TAM

July	2008 U	priate
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ora zone obgene			TOTAL	OMPANY				FACTOR			OREGON		
	ACCOUNT	<u>UE-191</u>	CY 2009 FILED	CY 2009 JULY UPDATE	CY 2009 NOV UPDATE		<u>UE-191</u>	CY 2009 FILED	CY 2009 JULY UPDATE	<u>UE-191</u>	CY 2003	CY 2009 JULY UPDATE	Q NOV UPDATE*
Sales for Resale													
Existing Firm PPL	447	24,333,468	24,282,692	24,281,810		SG	25 977%	26 411%	26.411%	6,321,208	6,413,406	6,413,173	
Existing Firm UPL	447	26,154,379	25,490,590	25,490,590		SG	25,977%	26,411%	26.411%	6,794,234	6,732,429	6,732,429	
Post-Merger Firm	447	2,097,277,718	926,901,220	1,090,894,586		SG	25 977%	26.411%		544,818,752	244,807,867	288,120,850	
Non-Firm	447					SE	25 465%	25.525%	25.525%	-			
Total Sales for Resale		2.147.765.564	976.674.502	1,140,666,986	-					557,934,195	257.953.702	301,266,462	<u> </u>
Purchased Power													
Existing Firm Demand PPL	555	72,620,358	71,979,766	73,739,631	1.0	SG	25.977%	26.411%	26.411%	18,864,899	19,010,886	19,475,691	34
Existing Firm Demand UPL	555	50,238,162	47,419,394	47,496,461		SG	25.977%	26.411%	26.411%	13,050,581	12,524,140	12,544,495	3
Existing Firm Energy	555	93,251,746	88,770,208	92,905,589		SE	25 465%	25.525%	25 525%	23,746,920	22,658,406	23,714,974	
Post-merger Firm	555	1,798,247,893	804,581,876	982,337,139		SG	25 977%	26,411%	26,411%	467,138,503	212,501,579	259,449,286	2
Secondary Purchases	555	34	-			SE	25.465%	25.525%	25.525%		4		
Seasonal Contracts	555	9,197,540	9,513,690	10,426,290		SSGC	23 565%	24 488%	24 489%	2,167,404	2,329,710	2,553,315	
Other Generation Expense	555		3.278,604	5.500,239		SG		26,411%			865.926	1,452,692	
Total Purchased Power		2,023,555,698	1,025,543,538	1,212,409,349						524,968,306	269,890,647	319,190,452	
Wneeling Expense													
Existing Firm PPL	565	32,639,496	31,366,571	31,031,711		SG	25.977%	26.411%	26.411%	6,478,901	8,284,360	8,195,919	
Existing Firm UPL	565	157,430	172,448	172,448		SG	25 977%	26.411%		40,896	45,546	45,546	2
Post-merger Firm	565	72,742,842	81,123,193	83,334,742		SG	25.977%	26.411%		18.896,717	21,425,795	22,009 897	
Non-Firm	565	420	144,177	190,077		SE	25 465%	25.525%		107	36,801	48,517	
Total Wheeling Expense		105,540,188	112,806,389	114.728.978		02	20 40070	20 02010	20 020 70	27.416.621	29,792,502	30,299,878	
Fuel Expense													
Fuel Consumeo - Coal	501	504,035,230	513,042,882	566.883,629	*	SE	25 465%	25 525%	25 525%	128,354,785	130,953,100	144,695,836	
Cholla / APS Exchange	501	54,138,635	55.371,186	57.393,458		SSECH	23.497%	25.914%		12,721,205	14,348,737	14,864 300	2
Fuel Consumed - Gas	501	20,256,747	7,652,800	23,437,129		SE	25 465%	25.525%	25 525%	5,158,459	1,953,361	5,982,277	
Natural Gas Consumed	547	399,872,050	369,250,420	331,998,558		SE	25.465%	25 525%	25.525%	101,828,972	94,250,381	84,741 923	
Simple Cycle Combustion Turbines	547	16,906,672	18,666,117	20,150,907		SSECT	23 497%	23.941%	24 342%	3,972,639	4 468,777	4,905 224	(a)
Steam from Other Sources	503	3.670,593	3,442,195	3,541,671		SE	25 465%	25.525%	25 525%	934,731	878,613	904,004	
Total Fuel Expense		998,880,927	967.425,599	1,003,405,352						252,970,791	246,852,969	256,093.564	
Net Power Costs		980,211,249	1,129,101,025	1,189,876,694						247,421,525	288,582,416	304,317,432	305,317,432
									725	101 101 102 102 10			
									Vara	ince from UE 191:		56,895,908	57,895,907
									Adjustment	from Stipulation:		(\$22.679,734)	
								Adju	sted Oregon-aliocal	ted NPC Increase:		\$34,216,174	
								Adjusted Ore	gon-allocated NPC	Baseline in Rates:		281,637,699	
								Wei	ghted Average OR a	allocation Factor;		0.25576	
									Adjusted Tol	al Company NPC:		\$1,101,199,268	
						Oregon-alloca	tec Difference betw	veen Juiy Updat	te and November/De	ecomber Updates:			1,000,000
								1	Final Oregon-alloca	ted NPC increase:			35,216,174

Updated Oregon-allocated NPC Baseline in Rates:

Updated Total Company NPC in Rates:

(1901) () () XIONS()

"Numbers are not final. Table is for illustrative purposes.

282,637,698

EXHIBIT B UE 199 AMENDED STIPULATION

PACIFIC POWER & LIGHT COMPANY DEVELOPMENT OF TAM ADJUSTMENT FOR JANUARY 1, 2009 FORECAST 12 MONTHS ENDED DECEMBER 31, 2009

						STIP	PULATED TAM ADJUSTMENT		
				Sch 200			Adj. for Rev. Resulting		
Line		Sch		Present	Stipulated Increase	November Update	From Sales Growth	Total TAM Adjustm	ent
No.	Description	No.	ikWh	Revenue	Revenue	Revenue	Revenue	Revenue	Cents\kWh
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
								(5)+(6)+(7)	(8)/(3)
	Residential								
1	Residential	4	5,498,027,469	\$223,460,031	\$13,754,435	\$0	(\$4,106.762)	\$9,647,672	0,175
2	Total Residential		5,498,027,469	\$223,460.031	\$13.754,435	\$0	(\$4,106,762)	\$9,647,672	
	Commercia) & Industrial								
3	Gen. Svc. < 31 kW	23	1,172,901,051	\$48,905,680	\$3.010.247	\$0	(\$898,792)	\$2,111,450	0 180
4	Gen. Svc. 31 - 200 kW	28	2,116,215,477	\$86,336.881	\$5,314,217	\$0	(\$1,586,705)	\$3,727.512	0.176
5	Gen. Svc, 201 - 999 kW	30	1,387,777.276	\$55,021,212	\$3,386,671	\$0	(\$1,011,183)	\$2,375.488	0.171
6	Large General Service >- 1.000 kW	48	3,431,117,599	\$127,301,361	\$7,835,666	\$0	(\$2,339,552)	\$5,496,114	0,160
7	Partial Req. Svc >= 1,000 kW	47	235.716,704	\$8,627,543	\$531,043	Sü	(\$158,558)	\$372,486	0 100
8	Agricultural Pumping Service	42	129.610,767	\$5.273.651	\$324,604	\$0	(\$96,919)	\$227.685	0.176
9	Total Commercial & Industrial		8,473,338.874	\$331,466,328	\$20,402,450	\$0	(\$6.091,709)	\$14,310,741	
	Lighting							A	0.000
+ G	Outdoor Area Lighting Service	15	11,748,030	\$263,038	\$16,191	\$0	(\$4,834)	\$11,356	0.097
+1	Street Lighting Service	50	13,162,874	\$245,093	\$15,086	\$0	(\$4,504)	\$10,582	0.080
12	Street Lighting Service HPS	51	17,973,931	\$528,254	\$32,515	50	(\$9,708)	\$22,807	0 127
13	Street Lighting Service	52	2,109,383	\$47,503	\$2,924	\$0	(\$873)	\$2,051	0.097
14	Street Lighting Service	53	9,762,025	\$93,911	\$5,780	\$0	(\$1,726)	\$4,055	0,042
15	Recreational Field Lighting	54	846,358	\$14,016	\$863	\$0	(\$258)	\$605	0.071
6	Total Public Street Lighting		55,602,601	\$1,191.815	\$73,359	\$0	(\$21,903)	\$51,455	
17	Total Sales to Ultimate Consumers		14.026,968,944	\$556,118,174	\$34,230,243	<u>\$0</u>	(\$10,220,375)	\$24,009,868	
18	Employee Discount		-	(\$228,573)	(\$14,069)	\$0	\$4,201	(868.62)	~
19	Total Sales with Employee Discount		14,026,968,944	\$555.889,601	\$34,216.174	\$0	(\$10,216,174)	\$24,000.000	ORL

To be updated December 2

EXHIBIT C UE 199 AMENDED STIPULATION

Adjustment for Revenues Resulting from Sales Growth

		Formula
(1) Oregon-allocated NPC Baseline in Rates from UE 191	\$ 247,421,525	
(2) 2007 MWH (excluding Schedule 33)	13,470,754	
(3) \$/MWH in Rates	18.37	(1) / (2)
(4) 2009 MWH (excluding Schedule 33)	14,026,969	
(5) 2009 Recovery of NPC in Rates	\$ 257,637,699	(3) * (4)
(6) Stipulated Adjustment for Revenues Resulting from Sales Growth	\$ (10,216,174)	(1) - (5)



EXHIBIT D UE 199 AMENDED STIPULATION

PACIFIC POWER & LIGHT COMPANY

2009 Energy Forecast by Class	kWh
Residential	5,500,858,427
Commercial	4,939,486,372
Industrial	3,413,981,137
Irrigation	257,547,612
Public Street and Highway Lighting	43,032,241
Total	14,154,905,788

UE-179 Forecast	Forecast				
1/07 - 12/07 kWh	1/09 - 12/09 kWh		Price	009 P	Dollars
2,474,417,701	2,508,444,232	kWh	3,454	¢	\$86,641,664
1,527,383,052	1,548,386,598	k₩h	4,106	é	\$63,576,754
1,421,647,102			5.082	¢	\$73,241,613
5,423,447,855	5,498,027,469	kWh			\$223,460,031
8.365.190	8.480.222	kWh	3.454	¢	\$292,907
				20	\$263,188
				55	\$358,197
The second	the second se	the second s			\$914,292
	a the state of the				(\$228,573)
873,544,410	883,927,755	kWh	4.433	¢	\$39,184,517
256,519,381	259,568,487	kWh	3-274	¥.	\$8,498,272
1,130.063.791	1,143,496,242	kWh			\$47,682,789
19,314,090	21,851,318	kWh	4 4 3 3	£	\$968,669
5,854,584	6,623,681	kWh	3.274	¢	\$216,859
25,168,674	28,474,999	kWh			\$1,185,528
656,686	664,492	1.1176	4.317	-6	\$28,686
	Forecast 1/07 - 12/07 kWh 2,474,417,701 1,527,383,052 1,421,647,102 5,423,447,855 8,365,190 6,322,885 6,952,739 21,640,814 873,544,410 256,519,381 1,130,063,791 19,314,090 5,854,584 25,168,674	Forecast 1/07 - 12/07 kWh Forecast 1/09 - 12/09 kWh 2,474,417,701 1,527,383,052 1,548,386,598 1,421,647,102 1,441,196,638 5,423,447,855 2,508,444,232 1,548,386,598 1,421,647,102 1,441,196,638 5,423,447,855 8,365,190 8,365,190 8,365,190 8,365,2739 7,048,348 21,640,814 8,480,222 6,322,885 6,409,833 6,952,739 7,048,348 21,640,814 873,544,410 255,256,519,381 259,568,487 1,130,063,791 883,927,755 256,519,381 259,568,487 1,143,496,242 19,314,090 21,851,318 5,854,584 5,623,681 25,168,674 21,851,318 5,623,681 28,474,999	Forecast 1/07 - 12/07 kWhForecast 1/09 - 12/09 kWh2,474,417,701 1,527,383,052 1,548,386,598 1,421,647,102 5,423,447,8552,508,444,232 1,548,386,598 kWh $3,365,190$ 5,423,447,855 $8,480,222$ 5,498,027,469 kWh $8,365,190$ 6,322,885 6,409,833 6,409,833 8,480,222 kWh $8,365,190$ 6,322,885 6,409,833 kWh $8,365,190$ 6,322,885 6,409,833 21,640,814 $8,480,222$ 21,938,404 kWh $8,365,190$ 6,322,885 6,409,833 21,640,814 $8,480,222$ 21,938,404 kWh $8,365,190$ 1,143,496,242 25,168,674 $8,480,222$ 2,8474,999 kWh	Forecast Forecast Forecast 1/09 - 12/09 2 kWh kWh Price 2 2,474,417,701 2,508,444,232 kWh 3.454 1,527,383,052 1,548,386,598 kWh 4.106 1,421,647,102 1,441,196,638 kWh 5.082 5,423,447,855 5,498,027,469 kWh 5.082 8,365,190 8,480,222 kWh 3.454 6,322,885 6,409,833 kWh 5.082 21,640,814 21,938,404 kWh 5.082 21,640,814 21,938,404 kWh 3.274 1,130,063,791 1,143,496,242 kWh 3.274 1,130,063,791 1,143,496,242 kWh 3.274 1,130,063,791 1,143,496,242 kWh 3.274 25,168,674 28,474,999 kWh 3.274	Forecast Korecast 2009 P kWh kWh Price 2009 P 2,474,417,701 2,508,444,232 kWh 3 454 \note 1,527,383,052 1,548,386,598 kWh 4,106

2009 Energy Forecast by Class	kWh
Residential	5,500,858,427
Commercial	4,939,486,372
Industrial	3,413,981,137
Irrigation	257,547,612
Public Street and Highway Lighting	43,032,241
Total	14,154,905,788

	UE-179 Forecast	Forecast		2000 B	
Schedule	1/07 - 12/07 kWh	1/09 - 12/09 kWh		2009 Pr Price	Dollars
	211,803	214,321	LW/h	3190 ¢	\$6,837
All additional kWh, per kWh Total	868,489	878,813		31,70 €	\$35,523
10141					
Schedule No. 23/723 - Industrial					
General Service (Primary)					
Energy Charge (Sch 200)					
1st 3,000 kWh, per kWh	16,720	18,917		4.317 ¢ 3.190 ¢	\$817 \$1,023
All additional kWh. per kWh	28,355	32,080	A PRODUCTION OF THE OWNER	3.190 %	\$1,840
Fotal	43,075	201,291	K YI II		
				**	
Schedule No. 28/728 - Commercial Large General Service - (Secondary)					
Energy Charge (Sch 200)					
1st 20,000 kWh, per kWh	1,369,106,215	1,385,380,032		4.114 ¢	\$56,994,535
All additional kWh, per kWh	558,013,343	564,646,143	the second second second	4.001 ¢	\$22,591,492 \$79,586,027
Total	1,927,119,558	1,950,026,175	KWN		\$14,300,021
Schedule No. 28/728 - Industrial					
Large General Service - (Secondary)					
Energy Charge (Sch 200)					
1st 20,000 kWh, per kWh	84,617,663	95,733,604		4.114 ¢ 4.001 ¢	\$3,938,480 \$1,715,784
All additional kWh, per kWh	37,904,496	42,883,884		4.001 \$	\$5,654,264
Fotal	122,522,159	138,617,488	KWN		35,054,204
Schedule No. 28/728 · Commercial					
Large General Service - (Primary)					
Energy Charge (Sch 200)					
1st 20,000 kWh, per kWh	9,595,990	9,710,052		4.036 ¢ 3.926 ¢	\$391,898 \$497,005
All additional kWh, per kWh	12,510,625	12,659,332	1.5 million 1.6	3.920 \$	\$888,903
Fotal	22,106,615	22,369,384	KWA		2000,343
Schedule No. 28/728 - Industrial					
Large General Service - (Primary)					
Energy Charge (Sch 200)	2.763.962	3,127,054	kWh	4.036 ¢	\$126,208
1st 20,000 kWh, per kWh	255 C 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2012-2021			

2009 Energy Forecast by Class	kWh
Residential	5,500,858,427
Commercial	4,939,486,372
Industrial	3,413,981,137
Inigation	257,547,612
Public Street and Highway Lighting	43,032,241
Total	14,154,905,788

	UE-179 Forecast 1/07 - 12/07	Forecast 1/09 - 12/09	2009 Pr	esent
Schedule	kWh	kWh	Price	Dollars
All additional kWh, per kWh	1,834,397	2,075,376 kWh	3.926 ¢	\$81,479
Total	4,598,359	5,202,430 kWh		\$207,687

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2009 Energy Forecast by Class	kWh
Residential	5,500,858,427
Commercial	4,939,486,372
Industrial	3,413,981,137
Irrigation	257,547,612
Public Street and Highway Lighting	43,032,241
Total	14,154,905,788

	UE-179 Forecast 1/07 - 12/07	Forecast 1/09 - 12/09		21	009 Pr	esent
Schedule	kWh	kWh		Price	-	Dollars
Schedule No. 30/730- Commercial						
Large General Service - (Secondary)						
Energy Charge (Sch 200)			1.11.0	4.486		\$6,218,248
1st 20,000 kWh, per kWh	136,986,259	138,614,540 798,395,746		4.480	5.5	\$30,985,739
All additional kWh, per kWh Fotal	789,017,131 926,003,390	937,010,286	the second se	0.001	firmer.	\$37,203,987
().a.	and the second					
Schedule No. 30/730 - Industrial						
Large General Service - (Secondary)						
Energy Charge (Sch 200)			1.1171	4,486	4	\$2,487,441
fst 20,000 kWh, per kWh	49,010,611 272,402,036	55,448,972 308,186,586		3,881		\$11,960,721
All additional kWh, per kWh Total	321,412,647	363,635,558	the second second second	5,001		\$14,448,162
Schedule No. 30/730 - Commercial						
Large General Service - (Primary)						
Energy Charge (Sch 200)	0 070 377	8,984,776	LW/h	4.395	đ	\$394,881
1st 20,000 kWh, per kWh All additional kWh, per kWh	8,879,233 64,056,347	64,817,749		3.791	18 C	\$2,457,241
Total	72,935,580	73,802,525	and the second sec			\$2,852,122
Schedule No. 30/730 - Industrial						
Large General Service - (Primary)						
Energy Charge (Sch 200)	1 703 700	1 022 522	Lu/h	4.395	đ	\$84,715
1st 20,000 kWh, per kWh All additional kWh, per kWh	1,703,720	1,927,532		3.791		\$432,226
Fotal	11,781,244	13,328,907				\$516,941
Schedule No. 41/741 Agricultural Pumping Service (Secondary)						
Energy Charge (Sch 200) Winter, 1st 100 kWh/kW, per kWh	1,370,427	1,641,775	kWh	5.968	¢	\$97,981
Winter, All additional kWh, per kWh	1,734,976	2,078,506	kWh	4.045		\$84,076
Summer, All kWh, per kWh	104,546,144	125,246,570	and the second second	4.045	¢	\$5,066,224
Fotal	107,651,547	128,966,851	kWh			\$5,248,281

2009 Energy Forecast by Class	kWh
Residential	5,500,858,427
Commercial	4,939,486,372
Industrial	3,413,981,137
Irrigation	257,547,612
Public Street and Highway Lighting	43,032,241
Total	14,154,905,788

	UE-179			
	Forecast	Forecast		
	1/07 - 12/07	1/09 - 12/09	200	9 Present
Schedule	kWh	kWh	Price	Dollars



PACIFIC POWER & LIGHT COMPANY

State of Oregon

2009 Energy Forecast by Schedule Based on UE-179 Billing Determinants Forecast 12 Months Ended December 31, 2007 Forecast 12 Months Ended December 31, 2009

2009 Energy Forecast by Class	kWh
Residential	5,500,858,427
Commercial	4,939,486,372
Industrial	3,413,981,137
Irrigation	257,547,612
Public Street and Highway Lighting	43,032,241
Total	14,154,905,788

	UE-179 Forecast 1/07 - 12/07	Forecast 1/09 - 12/09		20)09 Pr	esent
Schedute	kWh	kWh		Price	-	Dollars
Schedule No. 41/741						
Agricultural Pumping Service (Primary)						
Energy Charge (Sch 200)						
Winter, 1st 100 kWh/kW, per kWh	0	0	kWh	5.810	经	\$0
Winter, All additional kWh, per kWh	0	0	kWh	3,940	500 C	\$0
Summer, All kWh, per kWh	537,491	643,916	kWh	3.940	¢	\$25,370
Total	537,491	643,916	kWh			\$25,370
Schedule 33 - USBR\UKRB						
KWh						
Rate 35	48,977,004	58,674,586	kWh			
Rate 40	55,431,149	66,406,670	kWh			
Rate 33TX	2,383,625	2,855,590	kWh			
Total	106,791,778	27,936,846	kWh			

<u>Schedule No. 47/747 - Industrial</u> <u>Large General Service - Partial Requirement (Primary)</u>

Energy Charge (Sch 200)					
per on-peak kWh	99,451,751	112,516,397	kWh	3.736 ¢	\$4,203,613
per off-peak kWh	62,290,040	70,472,875	kWh	3.636 ¢	\$2,562,394
Total	161,741,791	182,989,272	kWh		\$6,766,007

Schedule No. 47/747 - Commercial

Large General Service - Partial Requirement (Transmission)

Eaergy Charge (Sch 200) per on-peak kWh per off-peak kWh	2,447,836	2,476,932 kWh 1,551,388 kWh	3.569 ¢ 3.469 ¢	\$88,402 \$53,818
Total	3,981,000	4,028,320 kWh		\$142,220

Schedule No. 47/747 - Industrial

Large General Service - Partial Requirement (Transmission)

Energy Charge (Sch 200)				
per on-peak kWh	26,467,191	29,944,098 kWh	3.569 \$	\$1,068,705
per off-peak kWh	15,577,308	18,755,014 kWh	3.469 \$	\$650,611
Total	43,044,499	48,699,112 kWh		\$1,719,316

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2009 Energy Forecast by Class	kWh
Residential	5,500,858,427
Commercial	4,939,486,372
Industrial	3,413,981,137
Irrigation	257,547,612
Public Street and Highway Lighting	43,032,241
Total	14,154,905,788

	UE-179 Forecast 1/07 - 12/07	Forecast 1/09 - 12/09	2009 Pi	resent
Schedule	kWh	kWh	Price	Dollars
Schedule No. 48/748 · Commercial				
Large General Service (Secondary)				
Energy Charge (Sch 200)				£0.1.10.0.10
per on-peak kWh	230,944,487 146,160,484	233,689,598 kWh 147, 897,8 14 kWh	3.915 ¢ 3.815 ¢	\$9,148,948 \$5,642,302
per off-peak kWh Total	377 104,971	381,587,412 kWh	3.013 \$	\$14,791,250
1 0(31	377,104,771	301,907,912 KWR		
Schedule No. 48/748 - Industrial				
Large General Service (Secondary)				
Energy Charge (Sch 200)		202 104 000 107	2015	\$11,439,555
per on-peak kWh per off-peak kWh	258,270,016 163,454,306	292,198,089 kWh 184,926,755 kWh	3.915 ¢ 3.815 ¢	\$7,054,956
Total	421,724,322	477,124,844 kWh	- All and a second s	\$18,494,511
Schedule No. 48/748 - Commercial				
Large General Service (Primary)				
Energy Charge (Sch 200)				
per on-peak kWh	252,378,230	255,378,112 kWh	3.736 ¢	\$9,540,926
per off-peak kWh	159,725,504	161,624,074 kWh	3.636 ¢	\$5,876,651 \$15,417,577
Fotal	412,103,734	41 7,00 2,186 kWh		\$13,4(7,377
Schedule No. 48/748 · Industrial				
Large General Service (Primary)				
Energy Charge (Sch 200)				
per on-peak kWh	823,361,671	931,523,957 kWh	3.736 ¢	\$34,801,735
per off-peak kWh	521,090,339	589,544,244 kWh	3,636 ¢	\$21,435,829
Fotal	1,344,452,010	1,521,068,201 kWh		\$56,237,564
Schedule No. 48/748 - Industrial				
Large General Service (Transmission)				
Energy Charge (Sch 200)				the same of the state of the same
per on-peak kWh	314,115,541	355,379,855 kWh	3.569 ¢	\$12,683,507
per off-peak kWh	246,564,714	278,955,101 kWh	3.469 ¢	\$9,676,952
Fotal	560,680,255	634,334,956 kWh		\$22,360,459

2009 Energy Forecast by Class	kWh
Residential	5,500,858,427
Commercial	4,939,486,372
Industrial	3,413,981,137
Irrigation	257,547,612
Public Street and Highway Lighting	43,032,241
Total	14,154,905,788

Schedule	1/07 - 12/07 kWh	1/09 - 12/09 kWh	Price	Dollars
	Forecast	Forecast	2009	Present
	UE-179			

2009 Energy Forecast by Class	kWh
Residential	5,500,858,427
Commercial	4,939,486,372
Industrial	3,413,981,137
Irrigation	257,547,612
Public Street and Highway Lighting	43,032,241
Total	14,154,905,788

	UE-179 Forecast 1/07 - 12/07	Forecast 1/09 - 12/09		2009 Present	
Schedule	kWh	kWh		Price	Dollars
Schedule No. 54/754 Recreational Field Lighting					
Energy Charge (Sch 200) per kWh	836,416	846,358	kWh	1.656 ¢	\$14,016
Total	836,416	846,358	kWh		\$14,016
Schedule No. 15 - Residential Outdoor Area Lighting Service Energy Charge (Sch 200)					
per kWh	2,792,556	2,830,958	kWh	2.239 ¢	\$63,385
Total	2,792,556	2,830,958	kWh		\$63,385
Schedule No. 15 - Commercial Outdoor Area Lighting Service <u>Energy Charge (Sch 200)</u>		0 (70 (75	1.11/6	ي 2239 و	\$188,942
per kWh Total	<u> </u>	8,438,672 8,438,672	the second se	2237 y	\$188,942
Schedule No. 15 - Industrial Outdoor Area Lighting Service <u>Energy Charge (Sch 200)</u> per kWh Total	401,614 401,614	454,373 454,373	Contraction of the local division of the loc	2.239 g	\$10,173
Schedule No. 15 - PS&11W Lighting Outdoor Area Lighting Service <u>Energy Charge (Sch 200)</u> per kWh Total	20,820 20, 820	24,027 24,027		2.239 ¢	\$538 \$538
Schedule No. 50 Mercury Vapor Street Lighting Service Energy Charge (Sch 200) per kWh	11,406,000	13,162,874	kWh	862 <i>\$</i>	\$245,093
Fotal	11,406,000	13,162,874		and a second surface to	\$245,093

2009 Energy Forecast by Class	kWh
Residential	5,500.858,427
Commercial	4,939,486,372
Industrial	3,413,981,137
Irrigation	257,547,612
Public Street and Highway Lighting	43,032,241
Total	14,154,905,788

	UE-179 Forecast 1/07 - 12/07	Forecast 1/09 - 12/09		2009 Pi	resent
Schedule	kWh	kWh		Price	Dollars
Schedule No. 51/751					
High Pressure Sodium Vapor Street Lighting Service					
Energy Charge (Sch 200)					
per kWh	15,574,917	17,973,931		2.939 ¢	\$528,254
Total	15,574,917	17,973,931	kWh		\$528,254
Schedule No. 52/752					
Company-Owned Street Lighting Service					
Energy Charge (Sch 200)					
per kWh	1,827,840	2,109,383	kWb	2.252 ¢	\$47,503
Total	1,827,840	2,109,383	kWh		\$47,503
Schedule No. 53/753					
Customer-Owned Street Lighting Service					
Energy Charge (Sch 200)					
per kWh	8,459,069	9,762,025	k₩h	0,962 ¢	\$93,911
Total	8,459,069	9,762,025	kWh		\$93,911
TOTAL OREGON	13,577,545,612	14,154,905,790			\$556,118,174
				-	
Employee Discount					(\$228,573)
FOTAL OREGON				-	\$555,889,601
WITH EMPLOYEE DISCOUNT)					