# Oregon PUC Public Udity Commission

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REPORT NAME: Net Power Cost Indicative Update for 2014	
COMPANY NAME: PacifiCorp dba Pacific Power	
DOES REPORT CONTAIN CONFIDENTIAL INFORMATION? No Yes	
If yes, please submit only the cover letter electronically. Submit confidential information as directed OAR 860-001-0070 or the terms of an applicable protective order.	ín
If known, please select designation:   RE (Electric)   RG (Gas)   RW (Water)   RO (Other)	
Report is required by:   Statute  Order 13-387  Other	,
Is this report associated with a specific docket/case? No Syes  If yes, enter docket number: UE 264	
List applicable Key Words for this report to facilitate electronic search: Net Power Cost Indicative Update for 2014, TAM	

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- Accident reports required by ORS 654.715

Please file the above reports according to their individual instructions.



November 8, 2013

#### VIA ELECTRONIC FILING AND OVERNIGHT DELIVERY

Public Utility Commission of Oregon 3930 Fairview Industrial Dr. S.E. Salem, OR 97302-1166

RE: Docket UE 264—2014 Transition Adjustment Mechanism

**Net Power Cost Indicative Update for 2014** 

Enclosed for filing by PacifiCorp d/b/a Pacific Power is the updated 2014 net power cost forecast for posting indicative transition adjustments. This filing shows the 2014 net power cost forecast at \$1,448.6 million on a total-company basis. Based on this indicative forecast, Oregonallocated net power costs are \$361.1 million after reflecting various updates and Commission-ordered adjustments. This is an approximate \$2.9 million (Oregon-allocated) decrease from the July Update.

The following exhibits are provided in support of this filing:

- Exhibit A—Summary of the updates since the July Update filing and impacts on net power costs.
- Exhibit B—Description of the updates.
- Exhibit C—Attestation of Stefan A. Bird in accordance with paragraph 13 of the Stipulation adopted by Order No. 10-363 (Docket UE 216).
- Exhibit D—Update of the Oregon allocation of net power costs.
- Exhibit E—Copy of the indicative transition adjustments and Schedule 201 rates posted on the Company's website November 8, 2013.

Attached are CDs with the net power cost GRID project and report and workpapers supporting this filing, as required by the TAM Guidelines. Confidential material is provided subject to the protective order issued in this proceeding.

If you have any questions, please contact Bryce Dalley, Director, Regulatory Affairs & Revenue Requirement, at (503) 813-6389.

Sincerely,

William P. Hillith / As William R. Griffith

William R. Griffith
Vice President, Regulation

Enclosure

cc: UE 264 Service List

#### **CERTIFICATE OF SERVICE**

I certify that I served a true and correct copy of Pacific Power's Net Power Cost Indicative Update for 2014 on the parties listed below via electronic mail and/or US mail in compliance with OAR 860-001-0180.

#### SERVICE LIST UE 264

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Dated this 8<sup>th</sup> of November, 2013.

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Carrie Meyer

Supervisor, Regulatory Operations

## EXHIBIT A

Oregon TAM 2014 (July 2013 Filing)	NPC (\$) =	1,460,641,427
	\$/MWh = \$	24.51

		Impact (\$)	NPC (\$)
Corrections, one-off from July Filing			
Correction #1 - Correct BPA PTP		565,440	
Ordered Adjustments, one-off from July Filing			
Ordered #1 - Captive Mine		(1851709.44)	
Ordered #2 - JB2 HR		(2306259.08)	
	Total Ordered =	(4157968.52)	
Updates, one-off from July Filing			
Úpdate #1 - Update BPA Final RoD		(1924228.90)	
Update #2 - Update Grant Proforma		(977626.44)	
Update #3 - Update Gem State Power Cost		` 37.900 <sup>′</sup>	
Update #4 - Update Shell Sale		(613,536)	
Update #5 - Update Small Purchase and QFs		(1,505,286)	
Update #6 - Update BPA Summer Storage		(616,553)	
Update #7 - Update Gas RFP		` 55,607 <sup>°</sup>	
Update #8 - Update OFPC and STF		(3,422,175)	
Update #9 - Update Tesoro QF		189,136	
Update #10 - Terminate Blanding		(18,757)	
Update #11 - Update Tristate Prices		(74,507)	
Update #12 - Update NUCOR Price		255,000	
	Total Updates =	(8,615,026)	
System balancing	impact of all adjustments	328,296	
Total Updates from July 2013 Filing with	ordered adjustments =	(11,879,258)	
Oregon TAM 2014 - No	ovember Indicative NPC	NPC (\$) = \$/MWh =	1,448,762,169 24.31

### **EXHIBIT B**

#### EXHIBIT B

#### November 2013 Oregon Transition Adjustment Mechanism (TAM) Indicative Update Update Explanations

#### Correction 1—Ponderosa Transmission Expense

In its Initial Filing, the Company inadvertently failed to include a point-to-point reservation on Bonneville Power Administration's (BPA) system which began on November 1, 2012, and a revision to the reservation effective March 1, 2013. The point-to-point reservations provide transmission service to the Ponderosa substation in central Oregon. The Company discovered this omission during a review of wheeling contracts in net-power-cost-related filings. The impact of the correction is to increase total-company net power costs by approximately \$0.6 million. Supporting document: BPA PTP Executed Svc Agt 04TX-11722 dtd 2-28-13.pdf.

#### Ordered Adjustment 1— Jim Bridger 2 Heat Rate

The Public Utility Commission of Oregon's October 28, 2013 order in Docket UE 264 required that the Jim Bridger 2 heat rate be adjusted to reflect the efficiency improvement of a recent turbine upgrade. The impact of this adjustment decreases net power cost by approximately \$2.3 million on a total-company basis.

#### Ordered Adjustment 2— Captive Coal Mine Costs

The Public Utility Commission of Oregon's October 28, 2013 order in Docket UE 264 required the removal of certain management overtime and bonus expenses related to the Bridger and Deer Creek affiliated captive coal mines. The impact of this adjustment decreases net power cost by approximately \$1.9 million on a total-company basis.

## **Update 1—October 31, 2013 Official Forward Price Curve and October 31, 2013 Short-Term Firm Transactions**

This update incorporates the Company's official forward price curves as of October 31, 2013, and new wholesale short term firm transactions for electricity and natural gas, both physical and financial transactions as of October 31, 2013. The impact of this update decreases net power costs by approximately \$3.4 million on a total-company basis. Supporting document: ORTAM14 New Short term transactions NOV13 CONF.xlsx.

#### **Update 2—Bonneville Power Administration Transmission Rates**

BPA released the Administrator's Final Record of Decision in its rate case on July 24, 2013, with rates taking effect October 1, 2013. The impact of the update is to reduce total-company net power costs by approximately \$1.9 million. Supporting documentation is available online at the following link:

www.bpa.gov/Finance/RateCases/BP-

14RateAdjustmentProceeding/Pages/default.aspx

#### Update 3— Small Qualified Facilities and Small Purchases

This update incorporates several changes to QF and small purchase contracts: New QF contracts:

• St. Anthony Hydro QF—Idaho hydropower QF which became effective on September 30, 2013. Supporting document: St Anthony Hydro - TT4215 FINAL QF PPA Hydro Endur 21027- Eff 9-30-13 dtd 12-20-12.pdf

Terminating QF contracts—the following qualifying facilities are no longer expected to generate during the test period:

- AG Hydro QF
- Duane Wiggins Hydro QF
- EBD Hydro QF

Terminated small purchases—the following small purchases for street lighting loads have terminated:

- Nephi City
- Payson City
- Springville City

The impact of the new and revised QF and small purchase contracts decreases net power costs by approximately \$1.5 million on a total-company basis.

## Update 4—Grant Public Utility District No. 2 Estimated Unmet District Load and Preliminary Pro Forma

Grant PUD provided its preliminary estimated unmet district load for 2014 on July 31, 2013, and its preliminary pro forma for 2014 on September 6, 2013. Grant PUD's load is lower, which increases the Company's share of Grant PUD's reasonable portion auction revenues. The Company's share of annual project costs increased slightly. The net impact of the update is to reduce total-company net power costs by approximately \$1.0 million. Supporting documents: Grant PUD - Preliminary EUDL + load info for 2014 Priest Rapids Project Proforma dtd 7-31-13.pdf, RM Memo 9-20-13 Grant PUD Corr - Prelim 2013 Priest Rapids-Wanapum Proforma Endur 20562 dtd 9-6-13.pdf.

#### Update 5—Shell 2013-2014 Sale

This update reflects a new power sale to Shell at Mona. The impact of this update decreases total-company net power costs by approximately \$0.6 million. Supporting document: Shell Energy NA 7.31.13 Sale of Energy and RECs Endur PA 20086.pdf.

#### **Update 6—BPA Summer Storage Settlement**

As part of an August 9, 2013, settlement agreement with BPA, the 2014 Summer Storage deliveries by BPA will be restricted to a total of eight days in one month. The impact of this update decreases total-company net power costs by approximately \$0.6 million. Supporting document: BPA 8-22-13 Amended and Restated AC Intertie Agt FERC filing 94BP94332.

#### Update 7—Update NuCor Price

This update incorporates new prices for NuCor's operating reserves for 2014. The contract was signed October 11, 2013, and is subject to approval by the Utah Public Service Commission. The impact increases net power costs by approximately \$0.3 million on a total-company basis. Supporting document: NUCOR Electric Service Agreement 2014-15 Executed 10-11-2013.pdf.

#### Update 8—Update Tesoro QF

This update incorporates new prices for the Tesoro QF contract for 2014. The contract was signed September 19, 2013, and is subject to approval by the Utah Public Service Commission. The impact of this contract increases net power costs by approximately \$0.2 million on a total-company basis. Supporting preliminary document: Tesoro Refining 9-19-13 TT3966 PRELIMARY Non-Firm QF PPA Endur 21030.pdf.

#### **Update 9—Tri-State Purchase Contract Energy and Capacity Prices**

This update reflects new capacity and energy rates for the Tri-State Generation and Transmission contract, per communication from Tri-State dated October 11, 2013. The impact of this update decreases net power costs by approximately \$75,000 on a total-company basis. Supporting document: RM Memo 10-17-13 Tri-State Corr - 2014 Capacity and Energy Rates plus 2014 Budget Endur 20132.pdf.

#### Update 10—2012 Natural Gas Request for Proposals

The Company has entered two ten-year gas swap transactions with J. Aron. These transactions met the pricing and market requirements from the settlement stipulation in the Utah Natural Gas Hedging pre-approval docket, described in more detail in the Supplemental Direct testimony of Mr. Duvall in this docket. The impact of this update increases total-company net power costs by approximately \$56,000. Supporting documents: J Aron 8-13-13 Ten Year Financial Swap - Gas RFP with 4th Amend ISDA Endur 20741.pdf, J Aron 8-23-13 Ten Year Financial Swap 15k mmbtu - Gas RFP Endur 20741.pdf.

#### **Update 11—Gem State Power Cost**

Idaho Falls provided the Gem State operating budget on August 5, 2013, for the fiscal year beginning October 1, 2013. The impact of this update increases total-company net power costs by approximately \$38,000. Supporting document: Idaho Falls Prelim Operating Budget Fiscal 2014 Endur 20245 dtd 8-5-13.pdf.

#### **Update 12—Blanding Purchase**

The Company's purchase contract with the city of Blanding, Utah, terminated on September 26, 2013. The impact of this update decreases net power costs by approximately \$19,000 on a total-company basis. Supporting document: DOCKET NO. 13-035-58 Order Approving Asset Transfer Agreement Issued June 12, 2013.

#### **EXHIBIT B**

#### **OTHER:**

#### **System-Balancing Impact of All Adjustments**

This update recalculates net power costs based on the inclusion of the correction, two ordered adjustments and updates 1 through 12, along with the final screening of gasfired units. The impact of this update increases net power costs by approximately \$0.3 million on a total-company basis. The total impact of the ordered adjustment and all updates listed above is a reduction in net power costs of approximately \$11.9 million from the Company's July rebuttal on a total-company basis.

#### **New Kennecott QF Contracts**

New Kennecott Smelter and Kennecott Refinery QF contracts have been executed for 2014 and are subject to approval by the Utah Public Service Commission. These contracts have no impact on net power costs because Kennecott intends to use the output of the QF facilities to first offset its own power usage. This is consistent with the original assumptions used in the Company's filing. Supporting documents:

- Kennecott Refinery 9-11-13 PRELIM TT3967 Non-Firm QF PPA Endur 21028.pdf
- Kennecott Smelter 9-11-13 PRELIM TT3968 Non-Firm QF PPA Endur 21029.pdf

## EXHIBIT C

#### BEFORE THE PUBLIC UTILITY COMMISSION

#### OF OREGON

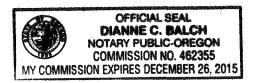
#### **UE 264**

	In the Matter	of	
	PACIFICORI	P d/b/a PACIFIC POWER,	ATTESTATION OF STEFAN A. BIRD
	2014 Transitio	on Adjustment Mechanism.	
1 2 3	STATE OF O	) ss	
4	I, STE	FAN A. BIRD, being first duly	sworn on oath, depose and say:
5	1.	My full name is Stefan A. Bird	. I am employed by PacifiCorp. My present
6		position is Senior Vice Presiden	nt, Commercial and Trading, for PacifiCorp
7		Energy.	
8	2.	I am making this attestation in	compliance with Paragraph 13 of the
9		Stipulation adopted by the Publ	lic Utility Commission of Oregon in Order
10		No. 10-363 in docket UE 216 o	n September 16, 2010.
11	3.	I understand that this attestation	n will be filed concurrently with the Indicative
12		Filing of the Company's net po	wer costs (NPC) on November 8, 2013.
13	4.	I attest that all NPC contracts e	xecuted prior to the contract lockdown date of
14		October 31, 2013, are included	in the Indicative Filing, with the exception of
15		three qualifying facility (QF) co	ontracts: EBD Hydro, AG Hydro and Rickreall
16		Dairy. PacifiCorp has excluded	d these QF contracts from the Indicative Filing

because the QF did not meet its initial commercial operation date, PacifiCorp

17

1	has issued a notice of default and PacifiCorp expects to terminate these QF
2	contracts on or before January 1, 2014.
3	I declare under penalty of perjury under the laws of the state of Oregon that the
4	foregoing is true and correct based on my information and belief as of the date of this
5	attestation.
6 7	SIGNED this: 6 day of Natomber, 2013, at Portland, Oregon
8	SUBSCRIBED AND SWORN to before me this letter day of November, 2013.
9	Diam Falch
10 11	Notary Public, State of Oregon My Commission expires:   October 26,2015



### EXHIBIT D

PacifiCorp CY 2014 TAM

November Indicative Update (Nov. 8	, 2013)		Total Co	mpany						Oregon A	llocated	
	ACCT.	UE-245 Final TAM CY 2013	TAM CY 2014	July Update CY2014	November Indicative Update CY 2014	Factor	Factors CY 2013	Factors CY 2014	UE-245 Final TAM CY 2013	TAM CY 2014	July Update CY 2014	November Indicative Update CY 2014
Sales for Resale							- / / -					
Existing Firm PPL	447	26,954,864	27,098,027	26,861,555	26,800,038	SG	25.777%	26.053%	6,948,197	7,059,849	6,998,241	6,982,214
Existing Firm UPL	447	30,104,809	30,332,094	30,332,094	30,332,094	SG	25.777%	26.053%	7,760,163	7,902,421	7,902,421	7,902,421
Post-Merger Firm	447	411,312,892	414,706,102	400,294,988	399,749,181	SG	25.777%	26.053%	106,024,762	108,043,387	104,288,860	104,146,661
Non-Firm	447	-	-	-	-	SE	24.314%	24.687%	-	-	-	-
Total Sales for Resale		468,372,565	472,136,224	457,488,637	456,881,313			_	120,733,122	123,005,658	119,189,522	119,031,296
Purchased Power												
Existing Firm Demand PPL	555	2,770,392	2,845,214	3,031,512	2,750,161	SG	25.777%	26.053%	714,128	741,264	789,800	716,499
Existing Firm Demand UPL	555	51,880,572	52,544,159	52,532,746	52,532,746	SG	25.777%	26.053%	13,373,335	13,689,330	13,686,357	13,686,357
Existing Firm Energy	555	25,377,752	25,882,481	26,323,697	25,697,849	SE	24.314%	24.687%	6,170,224	6,389,539	6,498,461	6,343,959
Post-merger Firm	555	602,895,671	532,436,997	522,081,451	522,289,211	SG	25.777%	26.053%	155,409,352	138,715,820	136,017,889	136,072,017
Secondary Purchases	555	-	-		-	SE	24.314%	24.687%	-	-	-	-
Other Generation Expense	555	4,324,005	3,354,157	3,344,256	3,344,256	SG	25.777%	26.053%	1,114,605	873,859	871,279	871,279
Total Purchased Power		687,248,392	617,063,008	607,313,663	606,614,223	•			176,781,645	160,409,811	157,863,786	157,690,112
Wheeling Expense												
Existing Firm PPL	565	24,712,270	27,925,313	27,925,313	27,297,335	SG	25.777%	26.053%	6,370,120	7,275,382	7,275,382	7,111,775
Existing Firm UPL	565			-		SG	25.777%	26.053%	-	- · · · -		, , ,
Post-merger Firm	565	104,782,875	110,506,851	111,710,154	110,997,010	SG	25.777%	26.053%	27,010,044	28,790,352	29,103,848	28,918,053
Non-Firm	565	2,848,300	5,105,200	5,104,031	5,070,211	SE	24.314%	24.687%	692,522	1,260,307	1,260,019	1,251,669
Total Wheeling Expense		132,343,444	143,537,364	144,739,499	143,364,556	•			34,072,686	37,326,041	37,639,249	37,281,497
Fuel Expense												
Fuel Consumed - Coal	501	723,280,800	760,735,004	756,338,307	748,229,481	SE	24.314%	24.687%	175,855,014	187,800,618	186,715,217	184,713,413
Fuel Consumed - Coal (Cholla)	501	55,986,523	59,706,693	58,174,914	57,155,082	SSECH/SE	24.314%	24.687%	13,612,294	14,739,632	14,361,486	14,109,722
Fuel Consumed - Gas	501	5,235,787	3,416,494	3,536,230	3,970,571	SE	24.314%	24.687%	1,273,004	843,421	872,980	980,204
Natural Gas Consumed	547	316,175,110	334,359,033	337,501,227	336,081,187	SE	24.314%	24.687%	76,873,295	82,542,321	83,318,026	82,967,465
Simple Cycle Comb. Turbines	547	17,063,157	7,134,120	6,711,334	6,786,758	SSECT/SE	24.314%	24.687%	4,148,654	1,761,181	1,656,809	1,675,429
Steam from Other Sources	503	3,762,209	3,374,877	3,441,624	3,441,624	SE	24.314%	24.687% _	914,725	833,147	849,624	849,624
Total Fuel Expense		1,121,503,586	1,168,726,221	1,165,703,636	1,155,664,703	•			272,676,986	288,520,320	287,774,142	285,295,858
Net Power Cost (Per GRID)		1,472,722,858	1,457,190,370	1,460,268,160	1,448,762,169				362,798,195	363,250,514	364,087,655	361,236,171
Oregon Situs Solar Project Benefit		(130,638)	(138,381)	(133,776)	(133,930)	OR	100.000%	100.000%	(130,638)	(138,381)	(133,776)	
Total Net of Adjustments		1,472,592,220	1,457,051,989	1,460,134,384	1,448,628,239				362,667,557	363,112,133	363,953,880	361,102,241
								Increase Abse	ent Load Change	444,576	1,286,322	(1,565,316)
					allocated NPC Bas				\$362,667,557			
				\$ Chan	ge due to load var 2014	iance from UE I Recovery of I			1,439,708 \$364,107,266			
					201			ncrease Includir	ng Load Change	(995,132)	(153,386)	(3,005,024)
										om Original Filing	841,747	(2,009,892)

### **EXHIBIT** E

PACIFIC POWER STATE OF OREGON

One-Year Option - Transition Adjustments (cents/kWh)
November 2013 Indicative Transition Adjustments

	23/723 S	econdary	23/723	Primary	28/728 S	econdary	28/728	Primary	30/730 S	econdary
	HLH	LLH	HLH	LLH	HLH	LLH	HLH	LLH	HLH	LLH
Jan-14	-0.614	-0.211	-0.763	-0.363	-0.552	-0.151	-0.668	-0.263	-0.681	-0.284
Feb-14	-0.661	-0.445	-0.806	-0.630	-0.590	-0.393	-0.739	-0.502	-0.738	-0.546
Mar-14	-0.543	-0.411	-0.704	-0.555	-0.466	-0.344	-0.627	-0.533	-0.624	-0.491
Apr-14	0.109	0.017	-0.098	-0.179	0.142	0.068	-0.007	-0.084	0.004	-0.081
May-14	0.215	0.338	0.033	0.248	0.284	0.409	0.101	0.250	0.126	0.250
Jun-14	0.454	0.794	0.260	0.635	0.471	0.871	0.351	0.716	0.322	0.724
Jul-14	-0.672	-0.216	-0.847	-0.345	-0.619	-0.144	-0.781	-0.267	-0.767	-0.284
Aug-14	-1.886	-0.802	-1.971	-0.859	-1.792	-0.718	-1.935	-0.843	-1.930	-0.871
Sep-14	-1.220	-0.536	-1.368	-0.643	-1.131	-0.457	-1.257	-0.577	-1.264	-0.620
Oct-14	-0.913	-0.458	-1.075	-0.595	-0.826	-0.397	-0.970	-0.546	-0.981	-0.554
Nov-14	-0.935	-0.640	-1.088	-0.778	-0.873	-0.576	-1.009	-0.704	-1.013	-0.734
Dec-14	-1.086	-0.578	-1.094	-0.625	-1.047	-0.517	-1.168	-0.662	-1.154	-0.644

	30/730	Primary	41/741 S	econdary	41/741	Primary	47/747,48/74	18 Secondary	47/747,48/	748 Primary
[	HLH	LLH	HLH	LLH	HLH	LLH	HLH	LLH	HLH	LLH
Jan-14	-0.742	-0.358				· · · · · · · · · · · · · · · · · · ·	-0.490	-0.172	-0.782	-0.400
Feb-14	-0.779	-0.597					-0.775	-0.536	-0.860	-0.657
Mar-14	-0.669	-0.536					-0.613	-0.473	-0.741	-0.590
Apr-14	-0.031	-0.123	0.124	-0.034	0.051	-0.107	0.029	-0.105	-0.098	-0.166
May-14	0.089	0.194	0.137	0.326	0.065	0.253	0.126	0.246	0.032	0.133
Jun-14	0.281	0.683	0.405	0.703	0.332	0.630	0.354	0.694	0.219	0.604
Jul-14	-0.811	-0.322	-0.730	-0.237	-0.803	-0.310	-0.778	-0.293	-0.886	-0.373
Aug-14	-1.980	-0.941	-1.805	-0.634	-1.878	-0.707	-1.878	-0.746	-2.034	-0.904
Sep-14	-1.313	-0.663	-1.241	-0.456	-1.313	-0.529	-1.314	-0.585	-1.385	-0.675
Oct-14	-1.027	-0.609	-0.949	-0.470	-1.022	-0.543	-0.998	-0.538	-1.098	-0.646
Nov-14	-1.057	-0.793					-1.051	-0.722	-1.127	-0.827
Dec-14	-1.228	-0.703					-1.103	-0.508	-1.278	-0.768

	47/747 Transr	,48/748 nission	51/	751	52/	752	53/	753	54/	754
	HLH	LLH	HLH	LLH	HLH	LLH	HLH	LLH	HLH	LLH
Jan-14	-0.885	-0.502	-0.541	-0.151	-1.207	-0.817	-2.455	-2.065	-1.782	-1.392
Feb-14	-0.926	-0.704	-0.604	-0.370	-1.270	-1.036	-2.518	-2.284	-1.845	-1.611
Mar-14	-0.829	-0.677	-0.497	-0.340	-1.163	-1.006	-2.411	-2.254	-1.738	-1.581
Apr-14	-0.176	-0.260	0.153	0.092	-0.513	-0.574	-1.761	-1.822	-1.088	-1.149
May-14	-0.102	0.054	0.273	0.415	-0.393	-0.251	-1.641	-1.499	-0.968	-0.826
Jun-14	0.095	0.467	0.473	0.848	-0.193	0.182	-1.441	-1.066	-0.768	-0.393
Jul-14	-0.972	-0.466	-0.638	-0.125	-1.304	-0.791	-2.552	-2.039	-1.879	-1.366
Aug-14	-2.065	-0.933	-1.740	-0.597	-2.406	-1.263	-3.654	-2.511	-2.981	-1.838
Sep-14	-1.436	-0.745	-1.125	-0.411	-1.790	-1.077	-3.038	-2.325	-2.365	-1.652
Oct-14	-1.162	-0.716	-0.851	-0.379	-1.517	-1.045	-2.765	-2.293	-2.091	-1.620
Nov-14	-1.213	-0.894	-0.897	-0.559	-1.563	-1.225	-2.811	-2.473	-2.138	-1.800
Dec-14	-1.342	-0.845	-1.041	-0.503	-1.707	-1.168	-2.955	-2.416	-2.282	-1.743

#### PACIFIC POWER STATE OF OREGON

Three-Year Option - Transition Adjustments (cents/kWh)
For Customers Electing Option During the November 2013 Window
November 2013 Indicative Transition Adjustments

#### Adjustments for Consumers Electing This Option for 2014-2016

	30/730 S	econdary	30/730 P	rimary
	HLH	LLH	HLH	LLH
2014	-0.503	-0.344	-0.556	-0.413
2015	-0.818	-0.592	-0.838	-0.655
2016	-0.881	-0.613	-0.903	-0.657

	47/747, 48/74	18 Secondary	47/747, 48/	748 Primary	47/747, 48/748	3 Transmission
	HLH	LLH	HLH	LLH	HLH	LLH
2014	-0.492	-0.231	-0.611	-0.458	-0.712	-0.541
2015	-0.947	-0.559	-0.945	-0.715	-1.007	-0.761
2016	-1.018	-0.694	-1.020	-0.735	-1.058	-0.822

# PACIFIC POWER STATE OF OREGON Schedule 201 Rates to be Effective January 1, 2014 through UE 264 TAM INDICATIVE

Schedule   Lamp Type   Secondary   Primary   Transmission
4 1st Block (<1,000 kWh) 2nd Block (>1,000 kWh) 3,505  23 1st 3,000 kWh All Addl kWh 2,192 2,124  28 1st 20,000 kWh All Addl kWh 2,799 2,670 2,6
2.000 kWh   2.956   2.863   per kWh   2.192   2.124   per kWh   2.192   2.670   per kWh   2.799   2.670   per kWh   2.799   2.670   per kWh   2.799   2.670   per kWh   2.650   2.611   per kWh   2.650   2.611   per kWh   2.650   2.611   per kWh   2.650   2.611   per kWh   2.735   2.649   per kWh   2.663   2.562   2.372   per lamp   2.600   2.83.77   per lamp   2.600   2.83.77   per lamp   2.600   2.83.86   per lamp   2.600   2.842   per l
23
All Addl kWh  2.192  2.124  per kWh  2.878  2.744  All Addl kWh  2.799  2.670  per kWh  3.055  3.020  All Addl kWh  2.650  2.611  per kWh  4.015  3.888  per kWh  Wint 1st 100kWh/kW  Wint All Addl kWh  2.735  2.649  per kWh  Summer kWh  2.735  2.649  per kWh  Off-Peak kWh  0.735  2.649  per kWh  47/48  On-Peak kWh  2.735  2.649  per kWh  Off-Peak kWh  2.735  2.649  per kWh  47/48  On-Peak kWh  2.735  2.649  per kWh  2.735  2.649  per kWh  47/48  On-Peak kWh  2.735  2.649  per kWh  2.735  2.649  per kWh  47/48  On-Peak kWh  2.735  2.649  per kWh  47/48  On-Peak kWh  2.735  2.612  2.422 per kWh  47/48  On-Peak kWh  2.663  2.562  2.372 per kWh  15  MV 7,000L  \$1.67  MV 21,000L  \$3.77  per lamp  HPS 5,800L  \$3.86  per lamp  HPS 22,000L  \$3.86  per lamp  MV 7,000L  \$3.10  per lamp  MV 21,000L  \$3.10  per lamp  MV 55,000L  \$3.10  per lamp  50  1.801  MV 7,000L  \$3.10  per lamp  MV 21,000L  \$3.10  per lamp  For lamp  LED 6,200L/150 W(comp)  LED 6,200L/150 W(comp)  LED 13,000L/250 W(comp)  LED 16,800L/400 W(comp)  HPS 5,800L/70W  \$0.88  per lamp  HPS 9,500L/160W  \$1.25  per lamp  HPS 9,500L/170W  \$1.82  per lamp  HPS 16,000L/150W  \$1.82  per lamp  HPS 27,500L/250W  \$3.27  per lamp  HPS 50,000L/400W  \$5.00  MH 12,000L/175W  \$1.93  per lamp  MH 19,500L/250W  \$2.67  per lamp  MH 19,500L/250W  \$2.67  per lamp  For lamp  MH 19,500L/250W  \$2.67
All Addl kWh  2.192  2.124  per kWh  2.878  2.744  All Addl kWh  2.799  2.670  per kWh  3.055  3.020  All Addl kWh  2.650  2.611  per kWh  4.015  3.888  per kWh  Wint All Addl kWh  2.735  2.649  per kWh  Summer kWh  2.735  2.649  per kWh  Off-Peak kWh  0ff-Peak kWh  2.735  2.649  per kWh  47/48  On-Peak kWh  2.735  2.649  per kWh  47/48  On-Peak kWh  2.735  2.649  per kWh  47/48  On-Peak kWh  2.735  2.649  per kWh  47/48  All Addl kWh  2.735  2.649  per kWh  2.735  2.649  per kWh  47/48  On-Peak kWh  2.735  2.649  per kWh  47/48  All Addl kWh  2.735  2.649  per lamp  Per lamp  All Addl kWh  2.735  2.649  per kWh  4.015  4.015  4.016  4.016  4.016  4.016  4.016  4.016  4.016  4.016  4.016  4.016  4.016  4.016  4.016
28
All Addl kWh 2.799 2.670 per kWh  30 1st 20,000 kWh 3.055 3.020 per kWh All Addl kWh 2.650 2.611 per kWh  41 Wint 1st 100kWh/kW 4.015 3.888 per kWh Wint All Addl kWh 2.735 2.649 per kWh Summer kWh 2.735 2.649 per kWh  47/48 On-Peak kWh 2.733 2.612 2.422 per kWh  Off-Peak kWh 2.663 2.562 2.372 per kWh  15 2.191  MV 7,000L \$1.67 per lamp MV 21,000L \$3.77 per lamp MV 55,000L \$9.03 per lamp HPS 5,800L \$0.68 per lamp HPS 22,000L \$1.86 per lamp HPS 50,000L \$3.86 per lamp MV 7,000L \$1.37 per lamp MV 21,000L \$3.10 per lamp MV 21,000L \$3.10 per lamp  50 1.801  MV 7,000L \$1.37 per lamp MV 21,000L \$3.10 per lamp  51 LED 4,000L/100 W(comp) \$0.54 per lamp LED 13,000L/250 W(comp) LED 16,800L/400 W(comp) HPS 5,800L/70W \$0.88 per lamp HPS 9,500L/100W \$1.25 per lamp HPS 9,500L/100W \$1.25 per lamp HPS 16,000L/150W \$1.82 per lamp HPS 16,000L/150W \$1.82 per lamp HPS 22,000L/250W \$3.27 per lamp HPS 27,500L/250W \$3.27 per lamp HPS 50,000L/400W \$5.00 per lamp HPS 50,000L/400W \$5.00 per lamp HPS 50,000L/175W \$1.93 per lamp MH 12,000L/175W \$1.93 per lamp MH 19,500L/250W \$3.27 per lamp Per lamp MH 19,500L/250W \$2.67 per lamp
30
All Addl kWh  41 Wint 1st 100kWh/kW Wint All Addl kWh Summer kWh  2.735 2.649 per kWh 2.735 2.649 per kWh 2.735 2.649 per kWh 2.735 2.649 per kWh 2.735 2.649 per kWh 2.735 2.649 per kWh  47/48 On-Peak kWh Off-Peak kWh Off-Peak kWh  2.713 2.612 2.422 per kWh 2.663 2.562 2.372 per kWh  15  MV 7,000L \$1.67 MV 21,000L \$3.77 per lamp HPS 5,800L \$9.03 per lamp HPS 22,000L \$1.86 per lamp HPS 50,000L \$3.86 per lamp HPS 50,000L \$3.86 per lamp For lamp S1.37 per lamp For lamp
All Addl kWh  41 Wint 1st 100kWh/kW Wint All Addl kWh Summer kWh  2.735 2.649 per kWh 2.735 2.649 per kWh 2.735 2.649 per kWh 2.735 2.649 per kWh 2.735 2.649 per kWh 2.735 2.649 per kWh  47/48 On-Peak kWh Off-Peak kWh Off-Peak kWh  2.713 2.612 2.422 per kWh 2.663 2.562 2.372 per kWh  15  MV 7,000L \$1.67 MV 21,000L \$3.77 per lamp HPS 5,800L \$9.03 per lamp HPS 22,000L \$1.86 per lamp HPS 50,000L \$3.86 per lamp HPS 50,000L \$3.86 per lamp For lamp S1.37 per lamp For lamp
41 Wint 1st 100kWh/kW Wint All Addl kWh Summer kWh  47/48 On-Peak kWh Off-Peak kWh Off-Peak kWh Off-Peak kWh  2.713 2.612 2.422 per kWh 2.663 2.562 2.372 per kWh  15  MV 7,000L S1.67 MV 21,000L S3.77 per lamp MV 55,000L S9.03 HPS 5,800L HPS 22,000L HPS 50,000L S1.86 MV 7,000L S1.86 Per lamp HPS 50,000L S3.86  MV 7,000L S1.87 Per lamp Fer lamp Fer lamp S50  MV 7,000L S1.37 MV 21,000L S1.37 Per lamp Fer lamp Fer lamp Fer lamp Fer lamp Fer lamp Fer lamp S50  1.801  LED 4,000L/100 W(comp) LED 13,000L/250 W(comp) LED 13,000L/250 W(comp) LED 16,800L/400 W(comp) HPS 5,800L/70W S0.88 HPS 9,500L/10W S0.88 HPS 9,500L/10W S0.88 HPS 9,500L/10W S0.88 HPS 9,500L/10W S0.88 HPS 9,500L/150W HPS 9,500L/150W S0.88 HPS 9,500L/150W HPS 9,500L/150W HPS 9,500L/150W S0.88 HPS 9,500L/150W HPS 9,500L/150W HPS 9,500L/150W S0.88 HPS 9,500L/150W H
Wint All Addl kWh         2.735         2.649         per kWh           47/48         On-Peak kWh         2.735         2.649         per kWh           47/48         On-Peak kWh         2.713         2.612         2.422 per kWh           Off-Peak kWh         2.663         2.562         2.372 per kWh           15         2.191         MV 7,000L         \$1.67         per lamp           MV 21,000L         \$3.77         per lamp         per lamp           HPS 5,800L         \$0.68         per lamp         per lamp           HPS 22,000L         \$1.86         per lamp         per lamp           50         I.801         MV 7,000L         \$3.137         per lamp           MV 21,000L         \$3.10         per lamp         per lamp           50         I.801         MV 55,000L         \$3.10         per lamp           MV 55,000L         \$3.10         per lamp         per lamp           51         LED 4,000L/100 W(comp)         \$0.54         per lamp           LED 6,200L/150 W(comp)         \$0.54         per lamp           LED 13,000L/250 W(comp)         \$1.45         per lamp           LED 16,800L/400 W(comp)         \$1.96         per lamp           H
Wint All Addl kWh         2.735         2.649         per kWh           47/48         On-Peak kWh         2.735         2.649         per kWh           47/48         On-Peak kWh         2.713         2.612         2.422 per kWh           Off-Peak kWh         2.663         2.562         2.372 per kWh           15         2.191         MV 7,000L         \$1.67         per lamp           MV 21,000L         \$3.77         per lamp         per lamp           HPS 5,800L         \$0.68         per lamp         per lamp           HPS 22,000L         \$1.86         per lamp         per lamp           50         I.801         MV 7,000L         \$3.137         per lamp           MV 21,000L         \$3.10         per lamp         per lamp           50         I.801         MV 55,000L         \$3.10         per lamp           MV 55,000L         \$3.10         per lamp         per lamp           51         LED 4,000L/100 W(comp)         \$0.54         per lamp           LED 6,200L/150 W(comp)         \$0.54         per lamp           LED 13,000L/250 W(comp)         \$1.45         per lamp           LED 16,800L/400 W(comp)         \$1.96         per lamp           H
Summer kWh   2.735   2.649   per kWh
47/48   On-Peak kWh   2.713   2.612   2.422 per kWh   Off-Peak kWh   2.663   2.562   2.372 per kWh   2.700
Description
Off-Peak kWh   2.663   2.562   2.372 per kWh
MV 7,000L MV 21,000L MV 21,000L MV 55,000L MV 55,000L MPS 5,800L MPS 22,000L MPS 20,000L MV 7,000L MV 7,000L MV 21,000L MV 21,000L MV 55,000L  S1.86 MV 7,000L MV 21,000L MV 55,000L  S3.10 MV 7,000L MV 55,000L MV 51.37 MV 1,000L MV 55,000L MV 55,000L  S3.10 MV 7,000L MV 50,000L M
MV 7,000L MV 21,000L MV 21,000L MV 55,000L MV 55,000L MPS 5,800L MPS 5,800L MPS 50,000L MV 7,000L MV 7,000L MV 21,000L MV 21,000L MV 55,000L  S1.86 MV 7,000L MV 21,000L MV 55,000L  S3.10 MV 7,000L MV 55,000L  S3.10 MV 7,000L MV 55,000L  S3.10 MV 7,000L MV 55,000L MV 51.37 MV 21,000L MV 51.37 MV 1,000L MV 55,000L MV 55,000L  S3.10 MV 7,000L MV 50,000L MV 50.54 Der lamp MV 50.54 Der lamp LED 13,000L/150 W(comp) LED 13,000L/250 W(comp) LED 16,800L/100W S0.88 MPS 9,500L/100W MPS 9,500L/100W MPS 9,500L/100W MPS 9,500L/100W MPS 9,500L/100W MPS 2,000L/250W MPS 2,000L/250W MPS 2,000L/250W MPS 2,000L/250W MPS 2,000L/250W MPS 2,000L/250W MPS 27,500L/250W MPS 30.27 MPS 19.30 MPS 19.30 MPS 19.30 MPS 19.30 MPS 19.30 MPS 27,500L/250W MPS 27,500L/250W MPS 30.27 MPS 19.30 MPS 19.30 MPS 19.300L/155W MPS 19.30 MPS 19.30 MPS 19.500L/250W MPS 20.67  Dusk to Dawn  2.177  Per kWh
MV 21,000L \$3.77 per lamp MV 55,000L \$9,03 per lamp HPS 5,800L \$0.68 per lamp HPS 22,000L \$1.86 per lamp HPS 50,000L \$3.86 per lamp MV 21,000L \$1.37 per lamp MV 21,000L \$3.10 per lamp MV 55,000L \$7.42 per lamp MV 55,000L \$7.42 per lamp ED 13,000L/150 W(comp) \$0.54 per lamp LED 6,200L/150 W(comp) \$1.45 per lamp LED 16,800L/400 W(comp) \$1.45 per lamp HPS 5,800L/70W \$0.88 per lamp HPS 5,800L/70W \$0.88 per lamp HPS 16,000L/150W \$1.25 per lamp HPS 16,000L/150W \$1.25 per lamp HPS 16,000L/150W \$1.25 per lamp HPS 27,500L/250W \$3.27 per lamp HPS 27,500L/250W \$3.27 per lamp HPS 50,000L/400W \$5.00 per lamp HPS 50,000L/400W \$5.00 per lamp HPS 50,000L/400W \$5.00 per lamp HPS 19,000L/150W \$1.93 per lamp HPS 19,000L/150W \$5.00 per lamp HPS 19,000L/150W \$5.00 per lamp HPS 50,000L/400W \$5.00 per lamp HPS 50,000L/400W \$5.00 per lamp MH 12,000L/155W \$1.93 per lamp F1 lamp MH 19,500L/250W \$2.67 per lamp
MV 55,000L \$9,03 per lamp   HPS 5,800L \$0.68 per lamp   HPS 22,000L \$1.86 per lamp   HPS 50,000L \$3.86 per lamp    MV 7,000L \$1.37 per lamp   MV 21,000L \$3.10 per lamp   MV 55,000L \$7.42 per lamp    50
HPS 5,800L
HPS 22,000L \$1.86 per lamp  50
HPS 50,000L   \$3.86   per lamp
S0
MV 7,000L         \$1.37         per lamp           MV 21,000L         \$3.10         per lamp           MV 55,000L         \$7.42         per lamp           51         2.842         per lamp           LED 4,000L/100 W(comp)         \$0.54         per lamp           LED 6,200L/150 W(comp)         \$0.77         per lamp           LED 13,000L/250 W(comp)         \$1.45         per lamp           LED 16,800L/400 W(comp)         \$1.96         per lamp           HPS 5,800L/700W         \$0.88         per lamp           HPS 9,500L/100W         \$1.25         per lamp           HPS 16,000L/150W         \$1.82         per lamp           HPS 22,000L/200W         \$2.42         per lamp           HPS 57,500L/250W         \$3.27         per lamp           MH 12,000L/175W         \$1.93         per lamp           MH 19,500L/250W         \$2.67         per lamp           52         Dusk to Dawn         2.177         per kWh
MV 7,000L         \$1.37         per lamp           MV 21,000L         \$3.10         per lamp           MV 55,000L         \$7.42         per lamp           51         2.842         per lamp           LED 4,000L/100 W(comp)         \$0.54         per lamp           LED 6,200L/150 W(comp)         \$0.77         per lamp           LED 13,000L/250 W(comp)         \$1.45         per lamp           LED 16,800L/400 W(comp)         \$1.96         per lamp           HPS 5,800L/700W         \$0.88         per lamp           HPS 9,500L/100W         \$1.25         per lamp           HPS 16,000L/150W         \$1.82         per lamp           HPS 22,000L/200W         \$2.42         per lamp           HPS 57,500L/250W         \$3.27         per lamp           MH 12,000L/175W         \$1.93         per lamp           MH 19,500L/250W         \$2.67         per lamp           52         Dusk to Dawn         2.177         per kWh
MV 21,000L MV 55,000L         \$3.10         per lamp           51         2.842         per lamp           LED 4,000L/100 W(comp) LED 6,200L/150 W(comp)         \$0.54         per lamp           LED 13,000L/250 W(comp) LED 13,000L/250 W(comp)         \$1.45         per lamp           LED 16,800L/400 W(comp)         \$1.96         per lamp           HPS 5,800L/70W         \$0.88         per lamp           HPS 9,500L/100W         \$1.25         per lamp           HPS 16,000L/150W         \$1.82         per lamp           HPS 22,000L/200W         \$2.42         per lamp           HPS 27,500L/250W         \$3.27         per lamp           MH 12,000L/175W         \$1.93         per lamp           MH 19,500L/250W         \$2.67         per lamp           52         Dusk to Dawn         2.177         per kWh
MV 55,000L         \$7.42         per lamp           51         2.842         2.842           LED 4,000L/150 W(comp)         \$0.54         per lamp           LED 6,200L/150 W(comp)         \$0.77         per lamp           LED 13,000L/250 W(comp)         \$1.45         per lamp           LED 16,800L/400 W(comp)         \$1.96         per lamp           HPS 5,800L/70W         \$0.88         per lamp           HPS 9,500L/100W         \$1.25         per lamp           HPS 16,000L/150W         \$1.82         per lamp           HPS 22,000L/200W         \$2.42         per lamp           HPS 27,500L/250W         \$3.27         per lamp           HPS 50,000L/400W         \$5.00         per lamp           MH 12,000L/175W         \$1.93         per lamp           MH 19,500L/250W         \$2.67         per lamp           52         Dusk to Dawn         2.177         per kWh
S1
LED 4,000L/100 W(comp)       \$0.54       per lamp         LED 6,200L/150 W(comp)       \$0.77       per lamp         LED 13,000L/250 W(comp)       \$1.45       per lamp         LED 16,800L/400 W(comp)       \$1.96       per lamp         HPS 5,800L/700W       \$0.88       per lamp         HPS 9,500L/100W       \$1.25       per lamp         HPS 16,000L/150W       \$1.82       per lamp         HPS 22,000L/200W       \$2.42       per lamp         HPS 57,500L/250W       \$3.27       per lamp         HPS 50,000L/400W       \$5.00       per lamp         MH 12,000L/175W       \$1.93       per lamp         MH 19,500L/250W       \$2.67       per lamp         52       Dusk to Dawn       2.177       per kWh
LED 6,200L/150 W(comp) LED 13,000L/250 W(comp) LED 16,800L/400 W(comp) HPS 5,800L/70W S0.88 HPS 9,500L/100W S1.25 HPS 16,000L/150W S1.82 HPS 22,000L/200W HPS 27,500L/250W HPS 27,500L/250W HPS 50,000L/400W S1.25 HPS 10,000L/150W S2.42 HPS 27,500L/250W HPS 27,500L/250W HPS 27,500L/250W S3.27 HPS 10,000L/400W HPS 27,500L/250W S2.67 HPS 50,000L/400W S5.00 HPS 12,000L/175W MH 12,000L/175W S1.93 HPS 193 HPS 193 HPS 194 HPS 27,500L/250W HPS 27,500L/250W HPS 27,500L/250W HPS 50,000L/400W HPS 50,000L/40
LED 13,000L/250 W(comp) LED 16,800L/400 W(comp) HPS 5,800L/70W S0.88 HPS 9,500L/100W S1.25 HPS 16,000L/150W S1.82 HPS 22,000L/200W HPS 27,500L/250W HPS 50,000L/400W S5.00 HPS 50,000L/400W MH 12,000L/175W MH 12,000L/175W MH 19,500L/250W S2.67  Dusk to Dawn  S1.45  per lamp per lamp per lamp per lamp MH 12,000L/175W S1.93 per lamp MH 19,500L/250W S2.67  Dusk to Dawn  S1.45  per lamp per lamp per lamp per lamp MH 19,500L/250W S2.67  Dusk to Dawn  S1.45  S1.96  per lamp Per lamp Per lamp MH 19,500L/250W S2.67  Dusk to Dawn  S1.45  Per lamp
LED 16,800L/400 W(comp) HPS 5,800L/70W S0.88 HPS 9,500L/100W S1.25 HPS 16,000L/150W S1.82 HPS 22,000L/200W S2.42 HPS 27,500L/250W HPS 50,000L/400W S5.00 MH 12,000L/175W S1.93 MH 19,500L/250W S2.67  Dusk to Dawn  S1.96  per lamp per lamp per lamp per lamp per lamp per lamp 2.177 per lamp
HPS 5,800L/70W \$0.88 per lamp HPS 9,500L/100W \$1.25 per lamp HPS 16,000L/150W \$1.82 per lamp HPS 22,000L/200W \$2.42 per lamp HPS 27,500L/250W \$3.27 per lamp HPS 50,000L/400W \$5.00 per lamp MH 12,000L/175W \$1.93 per lamp MH 19,500L/250W \$2.67 per lamp  52 Dusk to Dawn 2.177 per kWh
HPS 9,500L/100W \$1.25 per lamp HPS 16,000L/150W \$1.82 per lamp HPS 22,000L/200W \$2.42 per lamp HPS 27,500L/250W \$3.27 per lamp HPS 50,000L/400W \$5.00 per lamp MH 12,000L/175W \$1.93 per lamp MH 19,500L/250W \$2.67 per lamp  52 Dusk to Dawn 2.177 per kWh
HPS 16,000L/150W \$1.82 per lamp HPS 22,000L/200W \$2.42 per lamp HPS 27,500L/250W \$3.27 per lamp HPS 50,000L/400W \$5.00 per lamp MH 12,000L/175W \$1.93 per lamp MH 19,500L/250W \$2.67 per lamp  52 Dusk to Dawn 2.177 per kWh
HPS 22,000L/200W \$2.42 per lamp HPS 27,500L/250W \$3.27 per lamp HPS 50,000L/400W \$5.00 per lamp MH 12,000L/175W \$1.93 per lamp MH 19,500L/250W \$2.67 per lamp  52 Dusk to Dawn 2.177 per kWh
HPS 27,500L/250W \$3.27 per lamp HPS 50,000L/400W \$5.00 per lamp MH 12,000L/175W \$1.93 per lamp MH 19,500L/250W \$2.67 per lamp  52 Dusk to Dawn 2.177 per kWh
HPS 50,000L/400W \$5.00 per lamp  MH 12,000L/175W \$1.93 per lamp  MH 19,500L/250W \$2.67 per lamp  52 Dusk to Dawn 2.177 per kWh
MH 12,000L/175W \$1.93 per lamp MH 19,500L/250W \$2.67 per lamp  52 Dusk to Dawn 2.177 per kWh
52 Dusk to Dawn 2.177 per kWh
Dusk to Midn. 2.177 per kWh
l l
53 0.929
HPS 5,800L/70W \$0.29 per lamp
HPS 9,500L/100W \$0.41 per lamp
HPS 16,000L/150W \$0.59 per lamp
HPS 22,000L/200W \$0.79 per lamp
HPS 27,500L/250W \$1.07 per lamp
HPS 50,000L/400W \$1.64 per lamp
MH 9,000L/100W \$0.36 per lamp
MH 12,000L/175W \$0.63 per lamp
MH 19,500L/250W \$0.87 per lamp
MH 32,000L/400W \$1.38 per lamp
MH 107,800L/1,000W \$3.29 per lamp
Non-Listed 0.929 per kWh
Non-Listed 0.929 per kWh
l l
54 All kWh 1.602 per kWh