

I. Introduction

1 **Q. Please state your name and position at PGE.**

2 A. My name is Michael Niman. I am Manager of the Financial Analysis Department. My
3 qualifications previously appeared in UE 181 / PGE 100.

4 My name is Ham T. Nguyen. I am a Senior Economist responsible for developing
5 PGE's retail load forecast. My qualifications previously appeared in UE 180 / PGE 1200.

6 **Q. What is the purpose of your testimony?**

7 A. The purpose of our testimony is to update PGE's retail load and power cost forecasts based
8 on more recent information. As noted in direct testimony (UE 181 / PGE Exhibit 100, page
9 7), we planned to update forecasts several times until November so all parties were fully
10 informed regarding changes in loads and/or power costs. The result of the updated load
11 forecast is an increase in total cost of service (COS) load of approximately 4.7 aMW for
12 2007. The current power cost forecast has a \$6.5 million increase from the July 28 update¹
13 (and \$21.6 million increase from the original March 28 filing), for a total of \$833.3 million
14 in NVPC. Table 1 below summarizes forecast changes.

Table 1
2007 RVM Load and Power Cost Forecast
Summary

Date	Cost of Service Load (aMW)		Net Power Costs (\$1,000s)	
	Forecast	Change	Forecast	Change
March 28	2,310.9		\$811,622	
July 28	2,310.9	0.0	\$826,758	\$15,136
August 21	2,315.6	4.7	\$833,269	\$6,511

¹ Assumes \$2.1 million of transmission costs reduction for opt-out customers, or \$828.8 - \$2.1 = \$826.8.

II. Load Forecast

1 **Q. How did PGE update its 2007 load forecast?**

2 A. We re-estimated the load model and forecast for 2007 using historical data through May
3 2006 and the latest available economic forecasts.

4 **Q. What do you now forecast?**

5 A. We forecast total deliveries to all retail customers at the meter on cycle (month) basis of
6 19,645 million kWh for 2007, compared to 19,658 million kWh as provided in our prior
7 forecasts. In addition, we now project deliveries to COS customers of 18,829 million kWh
8 for 2007, compared to 18,786² million kWh in the prior forecast.

9 **Q. What drove the change in your forecast of deliveries to all retail and COS customers in**
10 **2007?**

11 A. First, the new forecast incorporates changes in customer usage trends since the last forecast,
12 including seven extra periods (months) October 2005 to May 2006, and uses the June 2006
13 Global Insight and State of Oregon Economic forecasts. Second, the new estimates of
14 deliveries to COS and “opt-out” customers are based on a more current list. See PGE
15 Exhibit 1501 for forecast details.

16 **Q. Does PGE intend to update its forecast of loads prior to setting final rates in**
17 **November?**

18 A. Yes. Our goal is to derive the best estimate of loads possible for 2007. Global Insight
19 issues new U.S. economic forecast monthly; Oregon will issue a new economic forecast on
20 September 1. PGE intends to update our forecast later in the third quarter using the latest
21 economic forecasts, and include additional usage data including any operational changes of

² PGE Exhibit 100 incorrectly listed 18,870 million kWh. This number included Schedule 483 opt-out load of 84 million kWh

- 1 large customers. If the result of this update is materially different than the one provided
- 2 here, we will submit it for inclusion in calculating final rates in November.

III. Updated Forecast of NVPC for 2007

1 **Q. Has PGE developed an updated forecast of net variable power costs for 2007?**

2 A. Yes. PGE Exhibit 1502-C provides a hard copy of the Monet output for the forecast. We
3 have also provided electronic copies to Staff, CUB, and ICNU.

4 **Q. What is PGE's current NVPC forecast for 2007?**

5 A. We currently forecast a NVPC of \$833.3 million for 2007. This forecast reflects the current
6 load forecast for COS customers and excludes any costs to serve both Schedule 125, Part B
7 opt-out and Schedule 483 loads. The forecast also includes an \$8.558 million (\$400,000 *
8 365/17) reduction reflecting the settlement reached with parties for the 2007 RVM³.

9 **Q. How does the current forecast of NVPC for 2007 compare to previous forecasts?**

10 A. Our initial NVPC forecast filed March 28 totaled \$813.8 million⁴. The update we filed on
11 July 28 totaled \$828.9 million.

12 **Q. What is the remaining schedule for providing updates to NVPC in this docket?**

13 A. On September 29, PGE will file a partial update for forward curves and standard term
14 contracts. On November 2, PGE will file another Monet update, locking down all inputs
15 except forward curves and incorporating the impact of any Commission order(s) in this
16 docket. On November 9, we will file the final Monet run with an update to forward curves
17 for 2007. PGE posts final RVM prices pursuant to the final NVPC forecast on
18 November 15, with an effective date of January 1, 2007.

19 **Q. Does this conclude your testimony?**

20 A. Yes.

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³ Parties have reached an agreement in principle; we expect a stipulation to be filed with the Commission shortly.

⁴ Exclusion of \$2.2 million of transmission costs for opt-out customers yields \$811.6 million (\$813.8 – 2.2).

List of Exhibits

Exhibit	Description
1501	Delivery Forecast by Market Segment and Service Level - Base Model Delivery Forecast by Market Segment and Service Level - Price Adjusted Residential Building Permits, New Connects, Vacancy Rates and Occupied Accounts Forecast of Residential Use per Occupied Account and Ultimate Deliveries Commercial Deliveries Forecast by NAICS Cluster Manufacturing Deliveries Forecast by NAICS Cluster Forecast of Deliveries under Miscellaneous Secondary Rate Schedules Forecast 2007 PGE “Cost of Service” and Opt-Out (“Non Cost of Service”) Loads
1502-C	Monet Output and Summary (Confidential and Subject to Protective Order No. 06-111, provided under separate cover)

Delivery Forecast by Market Segment and Service Level

Base Model

(average weather)

	(in million kWh)				% Change ¹		
	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
Schedule 7	7,433	7,381	7,507	7,602	(0.7%)	1.7%	1.3%
Residential Lighting et al	7	7	7	7	1.0%	(0.1%)	(0.2%)
Total Residential	7,440	7,388	7,514	7,609	(0.7%)	1.7%	1.3%
Commercial ²	6,761	6,897	7,099	7,299	2.0%	2.9%	2.8%
Manufacturing ²	4,286	4,382	4,527	4,646	2.2%	3.3%	2.6%
Miscellaneous Customers	198	194	210	210	(1.8%)	8.0%	(0.2%)
Secondary Voltage ³	7,194	7,297	7,516	7,717	1.4%	3.0%	2.7%
Total General Service	7,392	7,492	7,726	7,927	1.3%	3.1%	2.6%
Primary Voltage Service ⁴	2,676	2,730	2,786	2,863	2.0%	2.1%	2.8%
Transmission Voltage Service ⁴	1,178	1,253	1,325	1,365	6.4%	5.8%	3.0%
Total Retail	18,686	18,862	19,351	19,764	0.9%	2.6%	2.1%

1/ calculated from un-rounded numbers

2/ by North American Industry Classification System (NAICS) grouping

3/ current Schedules 32S & 83S

4/ current Schedule 83P

5/ current Schedules 83T & (old) Schedule 99

Delivery Forecast by Market Segment and Service Level

Price Adjusted

(average weather)

	(in million kWh)				% Change ¹		
	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
Schedule 7	7,433	7,381	7,502	7,514	(0.7%)	1.6%	0.2%
Residential Lighting et al	7	7	7	7	1.0%	(0.1%)	(0.2%)
Total Residential	7,440	7,388	7,509	7,521	(0.7%)	1.6%	0.2%
Commercial ²	6,761	6,897	7,095	7,280	2.0%	2.9%	2.6%
Manufacturing ²	4,286	4,382	4,524	4,633	2.2%	3.2%	2.4%
Miscellaneous Customers	198	194	210	210	(1.8%)	8.0%	(0.2%)
Secondary Voltage ³	7,194	7,297	7,509	7,690	1.4%	2.9%	2.4%
Total General Service	7,392	7,492	7,719	7,900	1.3%	3.0%	2.3%
Primary Voltage Service ⁴	2,676	2,730	2,785	2,859	2.0%	2.0%	2.6%
Transmission Voltage Service ⁴	1,178	1,253	1,325	1,365	6.4%	5.8%	3.0%
Total Retail	18,686	18,862	19,338	19,645	0.9%	2.5%	1.6%

1/ calculated from un-rounded numbers

2/ by North American Industry Classification System (NAICS) grouping

3/ current Schedules 32S & 83S

4/ current Schedule 83P

5/ current Schedules 83T & (old) Schedule 99

Residential Building Permits, New Connects, Vacancy Rates and Occupied Accounts

History and Forecast

	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
<u>Building Permits</u> ¹				
Single-Family	21,173	24,281	21,954	21,390
Multiple-Family	6,926	7,278	8,025	8,431
<u>New Connects</u>				
Single-Family	6,859	7,586	7,1501	6,484
Multiple-Family	4,424	4,161	4,765	5,238
Manufactured Home	262	205	228	240
Other	244	167	141	180
 Total Connects	 11,789	 12,119	 12,434	 12,143
<u>Vacancy Rates (%)</u>				
Single-Family	4.1%	4.0%	4.5%	4.6%
Multiple-Family	11.8%	10.5%	9.6%	9.8%
Mobile Home	9.8%	9.8%	9.9%	10.0%
<u>Number of Occupied Accounts</u>				
Single-Family Heat	103,421	104,034	104,066	104,525
Single-Family Non-Heat	304,682	310,542	315,041	320,029
Multiple-Family Heat	144,283	147,760	151,141	152,506
Multiple-Family Non-Heat	34,966	38,127	41,178	44,007
Mobile Home Heat	28,426	28,392	28,312	28,232
Mobile Home Non-Heat	3,606	3,601	3,556	3,540
Other	4,609	4,957	5,169	5,295
 Total Occupied Accounts	 623,994	 637,413	 648,463	 658,133
<u>Total Number of Customers</u> ²	668,830	680,093	692,260	703,176

1/ Oregon

2/ includes vacant accounts

Forecast of Residential Use per Occupied Account and Ultimate Deliveries

(average weather)

	<u>2004¹</u>	<u>2005¹</u>	<u>2006²</u>	<u>2007²</u>
<u>Use Per Occupied Account (kWh)</u>				
Single-Family Heat	17,366	16,826	16,785	16,507
Single-Family Non-Heat	11,119	10,949	11,073	11,008
Multiple-Family Heat	10,098	9,672	9,572	9,456
Multiple-Family Non-Heat	6,471	6,420	6,520	6,477
Mobile Home Heat	16,759	16,333	16,162	15,791
Mobile Home Non-Heat	11,718	11,517	11,506	11,471
Other	10,344	10,288	10,198	9,916
Average Use per Occupied Account	11,913	11,579	11,568	11,417
<u>Ultimate Deliveries (millions of kWh)</u>				
Single-Family Heat	1,796	1,750	1,747	1,725
Single-Family Non-Heat	3,388	3,400	3,488	3,523
Multiple-Family Heat	1,457	1,429	1,447	1,442
Multiple-Family Non-Heat	226	245	269	285
Mobile Home Heat	476	464	458	446
Mobile Home Non-Heat	42	41	41	41
Other	48	51	53	53
Schedule 7	7,433	7,381	7,502	7,514
Residential Lighting et al.	7	7	7	7
Total Residential Deliveries	7,440	7,388	7,509	7,521

1/ weather adjusted actual

1/ price adjusted

Commercial Deliveries Forecast by NAICS Cluster

(average weather)

	(in million kWh)				% Change ¹		
	<u>2004</u> ²	<u>2005</u> ²	<u>2006</u> ³	<u>2007</u> ³	<u>2005</u>	<u>2006</u>	<u>2007</u>
Food Stores	496	487	481	492	(1.8%)	(1.3%)	2.4%
Govt. & Education	954	994	1,011	1,014	4.1%	1.7%	0.3%
Health Services	604	611	644	689	1.1%	5.4%	7.1%
Lodging	119	106	108	109	(10.8%)	1.4%	1.5%
Misc. Commercial	665	723	742	751	8.6%	2.7%	1.1%
Merchandise Stores/Malls	350	369	381	388	5.6%	3.0%	2.0%
Office & F.I.R.E ⁴	940	958	1,020	1,051	1.9%	6.5%	3.0%
Other Services	786	784	805	832	(0.3%)	2.7%	3.4%
Other Trade	794	809	821	850	1.8%	1.5%	3.5%
Restaurants	438	439	446	457	0.2%	1.7%	2.4%
Trans., Comm. & Utility	614	618	636	646	0.7%	2.9%	1.6%
Total Commercial	6,761	6,897	7,095	7,280	2.0%	2.9%	2.6%

1/ calculated from un-rounded numbers

2/ weather-adjusted actual

3/ price adjusted

4/ Finance, Insurance and Real Estate

Manufacturing Deliveries Forecast by NAICS Cluster

(average weather)

	(in million kWh)				% Change ¹		
	<u>2004</u>	<u>2005</u>	<u>2006</u> ²	<u>2007</u> ²	<u>2005</u>	<u>2006</u>	<u>2007</u>
Food & Kindred Products	232	220	229	226	(5.1%)	3.8%	(1.2%)
High Tech	1,524	1,592	1,646	1,700	4.5%	3.4%	3.3%
Lumber & Wood	169	155	158	157	(8.7%)	2.5%	(1.1%)
Primary & Fab. Metals	496	508	519	537	2.4%	2.2%	3.5%
Other Manufacturing	599	603	620	634	0.7%	2.8%	2.3%
Paper & Allied Products	1,071	1,106	1,152	1,171	3.3%	4.1%	1.7%
Transportation Equipment	196	198	201	207	1.4%	1.1%	3.5%
Total Manufacturing	4,286	4,382	4,524	4,633	2.2%	3.2%	2.4%

¹/ calculated from un-rounded numbers

²/ price adjusted

Forecast of Deliveries under Miscellaneous Secondary Rate Schedules

	(in million kWh)				% Change		
	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
Secondary (Residential)							
Outdoor Area Lighting ¹	6.9	7.0	7.0	6.9	1.0%	(0.1%)	(0.2%)
Secondary (General Service)							
Outdoor Area Lighting ²	16.7	16.8	16.7	16.6	0.3%	(0.4%)	(0.5%)
Farm Irrigation et al. ³	79.3	73.3	88.1	85.2	(7.5%)	20.1%	(3.3%)
Service to Drainage ⁴	0.7	0.4	0.0	0.0	(39.1%)	n.a.	n.a.
Street and Other Lighting ⁵	101.7	104.3	105.6	108.2	2.6%	1.3%	2.5%
Total Misc. Commercial	198.5	194.9	210.5	210.1	(1.8%)	8.0%	(0.2%)
All Misc. Schedules	205.4	201.8	217.4	217.0	(1.7%)	7.7%	(0.2%)

1/ Existing Schedule 14R

2/ Existing Schedules 14C & 15C

3/ Existing Schedules 47 & 49

4/ Schedule 97 discontinued in 2006

5/ Existing Schedules 91, 92 & 93

Forecast of 2007 PGE Cost of Service and Opt-Out Loads

(average weather)

(in million kWh)

	<u>PGE COS</u> ¹	<u>Opt-Out</u> ¹	<u>Net System Load</u> ¹
Total Residential	7,521	0	7,521
Secondary Voltage	7,658	133	7,791
Primary Voltage Service	2,730	129	2,859
Transmission Voltage Service	812	553	1,365
<u>Street Lights</u>	<u>108</u>	<u>0</u>	<u>108</u>
Total Deliveries	18,829	815	19,644
Average MW ²	2,316	97	2,413
Peak MW ³	3,726	98	3,824

1/ Cost of Service (COS), Opt-out or Non-Cost of Service and Total Net System Load are on cycle basis and price adjusted; totals do not add up due to rounding

2/ calendar basis

3/ co-incident with winter system peak; "Opt-out" co-incident peak of 148 MW is in June

Because of the market sensitivity of this information, PGE is only providing Exhibit 1502-C to Staff, CUB, and ICNU. Any party who wishes a copy of this confidential exhibit should contact Patrick Hager @ 503-464-7580.



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Douglas C. Tingey
Assistant General Counsel

August 21, 2006

Via Electronic Filing and U.S. Mail

Oregon Public Utility Commission
Attention: Filing Center
550 Capitol Street, N.E., Ste 215
Salem, OR 97301-2551

Re: UE 180, UE 181 AND UE 184

Attention Filing Center:

Enclosed for filing in the captioned dockets are original and five copies of:

- **REBUTTAL TESTIMONY OF MICHAEL NIMAN AND HAM NGUYEN (PGE / 1500);**
- **EXHIBIT (PGE / 1501); and**
- **EXHIBIT IN CD-ROM FORMAT AND HARD COPY (PGE / 1502-C). PGE / 1502-C IS CONFIDENTIAL AND SUBJECT TO PROTECTIVE ORDER NO. 06-111. BECAUSE OF THE MARKET SENSITIVITY OF THIS INFORMATION, PGE IS ONLY PROVIDING EXHIBIT 1502-C TO STAFF, CUB, AND ICNU. ANY PARTY WHO WISHES A COPY OF THIS CONFIDENTIAL EXHIBIT SHOULD CONTACT PATRICK HAGER AT 503-464-7580.**

Also enclosed are three copies of:

- **WORKPAPERS**

This document is being filed by electronic mail with the Filing Center.

An extra copy of this cover letter is enclosed. Please date stamp the extra copy and return it to me in the envelope provided.

Thank you in advance for your assistance.

Sincerely,

DOUGLAS C. TINGEY

DCT:jbf
Enclosures
cc: Service List – UE 180/UE 181/UE 184

