

Exhibit No. ____ (YKGM-2)
Docket No. UG-060265
Witness: Yohannes K.G. Mariam

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

**CASCADE NATURAL GAS
CORPORATION,**

Respondent.

DOCKET NO. UG-060265

ERRATA TO

**EXHIBIT TO TESTIMONY OF
YOHANNES K.G. MARIAM, PH.D.**

**STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION**

Temperature Normalization Adjustment

September 25, 2006

Table 1: Statistical Results of Weather Sensitivity Coefficients (Staff's Analytical Result)

Variable	Bellingham-503		Bremerton-503		Walla Walla 503		Yakima 503	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
C	16.08991	0.0079	16.26462	0.0086	13.3554	0	11.19455	0.0005
JANHDD	0.1734	0	0.20611	0	0.129104	0	0.133177	0
FEBHDD	0.138138	0	0.168108	0	0.108263	0	0.115777	0
MARHDD	0.147411	0	0.168555	0	0.121069	0	0.120242	0
APRHDD	0.153345	0	0.161892	0	0.097627	0	0.111324	0
MAYHDD	0.137647	0.0001	0.144825	0	0.086589	0.0035	0.118053	0.0017
JUNEHDD	0.04426	0.1993	0.036115	0.2179	0.031524	0.4716	0.02926	0.4892
JULYHDD	0.038395	0.5684	0.017894	0.6696	0.041483	0.9618	0.040727	0.8782
AUGHDD	0.039686	0.6216	0.017738	0.7033	0.080136	0.9371	0.036777	0.8666
SEPHDD	0.03868	0.1463	0.038342	0.2012	0.06442	0.1732	0.031972	0.252
OCTHDD	0.154853	0	0.189601	0	0.087637	0	0.090419	0
NOVHDD	0.179689	0	0.208584	0	0.118751	0	0.117854	0
DECHDD	0.154115	0	0.185041	0	0.109719	0	0.117656	0
R-squared	0.973897		0.977373		0.986992		0.98402	
Durbin-Watson stat	2.059591		2.050633		2.113142		2.011163	

Variable	Bellingham-504		Bremerton-504		Walla Walla 504		Yakima 504	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
C	99.09677	0	145.0745	0	126.4571	0	103.2585	0
JANHDD	0.644002	0	0.867991	0	0.669451	0	0.667789	0
FEBHDD	0.528481	0	0.699141	0	0.580705	0	0.599454	0
MARHDD	0.546971	0	0.668515	0	0.589875	0	0.60519	0
APRHDD	0.560954	0	0.635076	0	0.468974	0	0.547741	0
MAYHDD	0.540144	0	0.595101	0.0001	0.43095	0.0004	0.63254	0.0001
JUNEHDD	0.118909	0.3421	0.092909	0.5239	0.099558	0.5496	0.179518	0.3215
JULYHDD	0.096387	0.6944	-0.005135	0.9805	-0.622623	0.8974	0.517865	0.6511
AUGHDD	0.182302	0.5343	0.068173	0.7699	1.512512	0.671	0.552061	0.5498
SEPHDD	0.131213	0.1756	0.15055	0.3143	0.514748	0.0866	0.308436	0.0133
OCTHDD	0.5796	0	0.815502	0	0.532341	0	0.542304	0
NOVHDD	0.623419	0	0.834996	0	0.573757	0	0.547972	0
DECHDD	0.570704	0	0.774558	0	0.564296	0	0.594314	0
R-squared	0.97009		0.964448		0.984413		0.985841	
Durbin-Watson stat	2.063898		2.012144		2.004844		2.072751	

Table 2: Average Difference Between Estimated & Actual use per Customer (2000-2005)

	Rate Schedule	Actual Base Load		Estimated Base Load 2000-2005	Actual Use Per Customer Test Year	Estimated Use Per Customer Test Year	Average Difference (estimated less actual use per customer) for base load	
		2000-2005	2000-2005				Base Load	Test Year
Bellingham	503	22.18	21.70	21.70	59.60	61.03	2.18%	-2%
	504	118.44	116.23	116.23	239.71	243.38	1.87%	-2%
Bremerton	503	21.65	21.18	21.18	58.07	59.64	2.18%	-3%
	504	160.70	158.50	158.50	298.78	299.55	1.37%	0%
Walla Walla	503	14.91	14.47	14.47	49.61	51.30	2.92%	-3%
	504	136.33	133.89	133.89	304.74	307.80	1.79%	-1%
Yakima	503	13.22	13.15	13.15	49.80	52.22	0.48%	-5%
	504	121.25	119.96	119.96	289.78	296.12	1.06%	-2%
Average	503	17.99	17.62	17.62	54.27	56.05	1.94%	-3.34%
	504	134.18	132.15	132.15	283.25	286.71	1.52%	-1.25%

Table 6: Monthly Weather Sensitive Natural Gas Adjustment by Rate Schedule for Walla Walla

Variables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Unbilled HDD	323	-18	5	99	24	57	11	9	9	27	17	-15	98
Rate Group	Parameter Values												
Schedule 503													
Number of Customers	22,139	22,309	22,409	22,435	22,473	22,537	22,590	22,691	22,901	21,138	21,554	21,903	
Unbilled Sales	-51448	12076	268590	52566	110917	7815	8434	16365	39833	31492	-38393	235511	
Usage/HDD	0.129104	0.108263	0.121069	0.097627	0.086589	0.031524	0.041483	0.080136	0.06442	0.087637	0.118751	0.109719	
Schedule 504													
Number of Customers	3,646	3,661	3,667	3,653	3,615	3,592	3,591	3,600	3,611	3,471	3,525	3,596	
Unbilled Sales	-43935	10630	214144	41116	88799	3934	-20123	49005	50186	31412	-30337	198862	
Usage/HDD	0.669451	0.580705	0.589875	0.468974	0.43095	0.099558	-0.622623	1.512512	0.514748	0.532341	0.573757	0.564296	
Total Therms Adjustment	1287453	-95383	22706	482735	93682	199717	11749	-11689	65371	90019	62904	-68731	434374

Table 7: Monthly Weather Sensitive Natural Gas Adjustment by Rate Schedule for Yakima

Variables	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Unbilled HDD	532	24	20	82	36	95	23	6	26	23	-24	73	5
Rate Group	Parameter Values												
Schedule 503													
Number of Customers		26,480	26,473	26,389	26,199	25,734	25,367	25,049	25,012	25,015	24,810	25,554	26,266
Unbilled Sales	1524489	84637	61299	260191	104997	288608	4453	26524	21157	-19195	163761	15058	512999
Usage/HDD		0.133177	0.115777	0.120242	0.111324	0.118053	0.02926	0.040727	0.036777	0.031972	0.090419	0.117854	0.117656
Schedule 504													
Number of Customers		5,864	5,872	5,863	5,828	5,785	5,732	5,717	5,703	5,691	5,630	5,749	5,833
Unbilled Sales	1845416	93982	70400	290955	114920	347628	6174	76976	72413	-42127	222882	15751	575461
Usage/HDD		0.667789	0.599454	0.60519	0.547741	0.63254	0.179518	0.517865	0.552061	0.308436	0.542304	0.547972	0.594314
Total Therms Adjustment	3369905	178619	131699	551146	219917	636236	10627	103501	93570	-61322	386642	30810	1088460

Table 8. Comparison of Staff and Cascade's Method of Weather Normalization on Proforma Revenue and Energy

Date	Staff's Volume and Revenue Adjustments				Cascade's Volume and Revenue Adjustment				Total Adjustment					
	Schedule 503		Schedule 504		Schedule 503		Schedule 504		Total					
Month	Energy Impact Therms	Revenue Impact (\$000)	Energy Impact Therms	Revenue Impact (\$000)	Energy Impact Therms	Revenue Impact (\$000)	Energy Impact Therms	Revenue Impact (\$000)	Energy Impact Therms	Revenue Impact (\$000)				
Jan-05	859,160	195	506,465	99	1,365,625	293	-945,369	-214	-599,602	-117	-1,544,971	-331	2,910,596	624
Feb-05	-157,680	-36	-11,003	-2	-168,684	-38	-339,411	-77	-125,938	-25	-465,350	-101	296,566	64
Mar-05	1,670,973	379	1,068,147	208	2,739,120	587	673,815	163	418,837	82	1,092,652	234	1,646,468	352
Apr-05	239,354	54	186,166	36	425,520	90	-63,378	-14	-4,243	-1	-67,621	-15	493,141	106
May-05	1,274,962	289	874,403	170	2,149,365	459	914,980	207	461,120	90	1,376,099	297	773,266	162
Jun-05	-32,489	-7	-4,960	-1	-37,449	-8	49,761	11	24,091	5	73,851	16	-111,300	-24
Jul-05	34,616	8	68,573	13	103,190	21	276,225	63	294,051	57	570,276	120	-467,086	-99
Aug-05	53,752	12	132,716	26	186,468	38	238,716	54	278,698	54	517,414	108	-330,945	-70
Sep-05	-317,679	-72	-148,433	-29	-466,112	-101	-583,389	-132	-363,060	-71	-946,449	-203	480,337	102
Oct-04	180,721	41	244,877	48	425,598	89	216,574	49	208,552	41	425,126	90	472	-1
Nov-04	11,040	3	16,907	3	27,947	6	-478,642	-108	-201,423	-39	-680,065	-148	708,012	153
Dec-04	2,286,218	518	1,561,699	304	3,847,917	822	1,844,471	418	1,262,569	246	3,107,039	664	740,878	158
Total	6,102,948	1,383	4,495,557	875	10,598,506	2,258	1,804,351	409	1,653,651	322	3,458,002	731	7,140,504	1,527

\$ 0.22658
\$ 0.19469