

2007 Natural Gas Integrated Resource Plan Appendices

December 31, 2007



AVISTA CORPORATION 2007 NATURAL GAS INTEGRATED RESOURCE PLAN

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TAC Member List

Appendix 1.1

2007 IRP TAC Member List

<u>Name</u>	<u>Organization</u>
Bob Jenks	Oregon CUB
Bonnie Tatom	OPUC
Bruce Folsom	Avista
Bryan Lanspery	IPUC
Dan Kirschner	Northwest Gas Association
Dave Allred	Northwest Pipeline
Dave Sloan	Gas Transmission Northwest
Doug Kilpatrick	WUTC
Elizabeth Klumpp	WCTED
Greg Rahn	Avista
Inara Scott	Northwest Natural
Jon Powell	Avista
Kathy Bernarnd	Cascade Natural Gas Company
Kelly Irvine	Avista
Kerry Shroy	Avista
Ken Boni	Avista
Ken Zimmerman	OPUC
Kevin Christie	Avista
Linda Gervais	Avista
Lynn Anderson	IPUC
Lynn Kittilson	OPUC
Nicolas Garcia	WUTC
Paula Pyron	Northwest Industrial Gas Users
Phillip Popoff	Puget Sound Energy
Randy Barcus	Avista
Scott Russell	Gas Transmission Northwest
Steven Johnson	Washington Attorney General's Office
Terrence Browne	Avista
Terri Carlock	IPUC
Terry Morlan	Northwest Power and Conservation Council
Yohannes Mariam	WUTC

Natural Gas Demand Forecast Detail

Appendix 2.1

Appendix 2.1 - Natural Gas Demand Forecast Detail

Overview

Avista presented their 2005 Natural Gas Forecast to the Technical Advisory Committee (TAC). What follows in narrative is the process of preparing the company base customer growth forecast. The first step is a framework-forecast of the national economy, followed by regional economic forecasts consistent with the national outlook. The employment and population forecasts are the key drivers for the natural gas customer forecast.

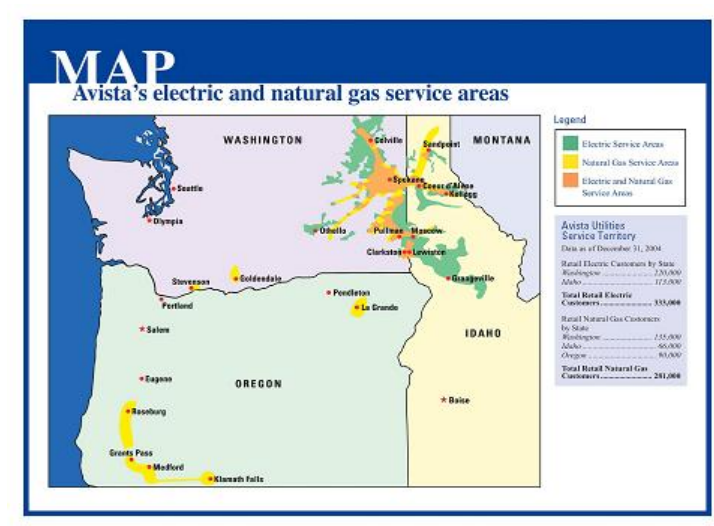
National Economic Outlook

Avista has contracted for national economic forecasts with Global Insight, Inc. for several years. The most recent twenty-five year long term forecast was used as the basis for the 2007 effort. The following narrative has Avista remarks and Global Insight forecasts (used with permission) which are consistent with the presentation at the TAC in May 2007, with a focus on the near term national outlook.

The U.S. Gross Domestic Product is expected to rebound to levels in the 2.5 to 3.0 percent range after a slowdown in 2007. Longer term the rate settles in at 2.5 percent.

Regional Economic Outlook

Avista serves natural gas in eastern Washington, northern Idaho, and in portions of five counties in Oregon. The principal county in Washington is Spokane, while in Idaho there are two counties; Kootenai and Bonner are barometers of service area growth. Kootenai County includes Coeur d'Alene, Post Falls, Hayden and a host of smaller municipalities and Bonner County is anchored by Sandpoint. The primary cities in Spokane County are the City of Spokane, City of Spokane Valley and Liberty Lake. In Oregon, the counties (principal city) of Jackson (Medford), Josephine (Grants Pass), Douglas (Roseburg), Klamath (Klamath Falls) and Union (La Grande) round out the service territory. The map below shows the breadth of the service area.



Global Insight, Inc. has also been providing county-level forecasts to Avista for several years. These forecasts are consistent with and driven by their national forecast.

The economic concepts provided are forecast forward for 30 years. Below we report forecast data ending in the year 2028, the twenty-year horizon.

Overall, the results of the economic forecasts suggest the following impacts on Avista's customer growth: Near term the strength in the construction boom will be mirrored with strong customer growth, while longer term, underlying employment and population growth will drive customer growth.

The following table indicates a listing of 21 counties served by Avista Natural Gas. We purchased economic forecasts for the 15 principal counties.

Table of Counties Served (All or Portions)		
Washington	Idaho	Oregon
Adams*	Benewah	Douglas
Asotin	Bonner	Jackson
Franklin*	Boundary	Josephine
Grant*	Latah	Klamath
Klickitat*	Nez Perce	Union
Lincoln*	Shosone	
Skamania*		
Spokane		
Stevens		
Whitman		

*Did not purchase economic data, few customers served

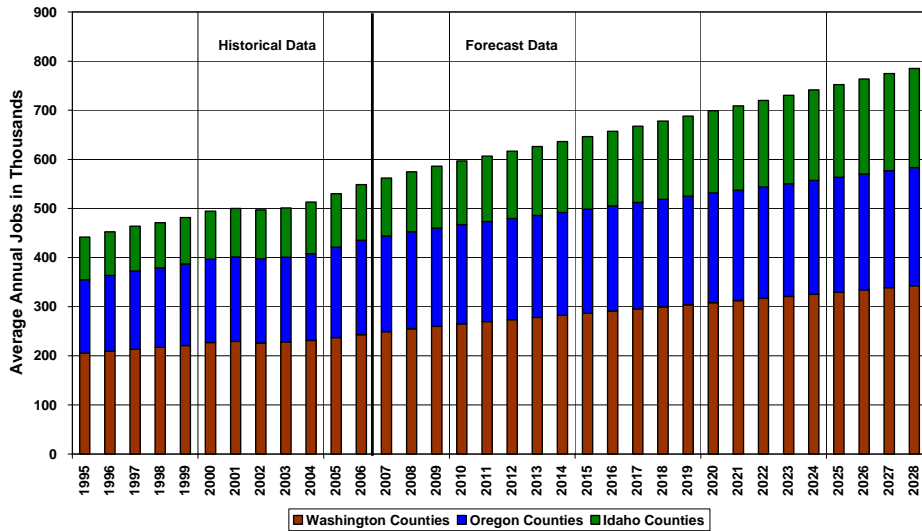
The charts that follow are the actual employment, population, population age 65 and over, number of households and personal income forecasts used to produce the natural gas forecasts by state, by customer class (residential, commercial and industrial) and by rate schedule (firm – small, medium and large-sized customers).

Although the forecasts are prepared in detail by county, the charts aggregate the data by State.

The first chart is Non-Farm Employment. During the last decade, fairly consistent growth in jobs was observed except during the job recession and economy restructuring in the 2001-2002 period. The resumption of job growth in 2003 has accelerated through early 2007, and although expected to moderate it's rate of growth, is expected to grow modestly through the forecast period.

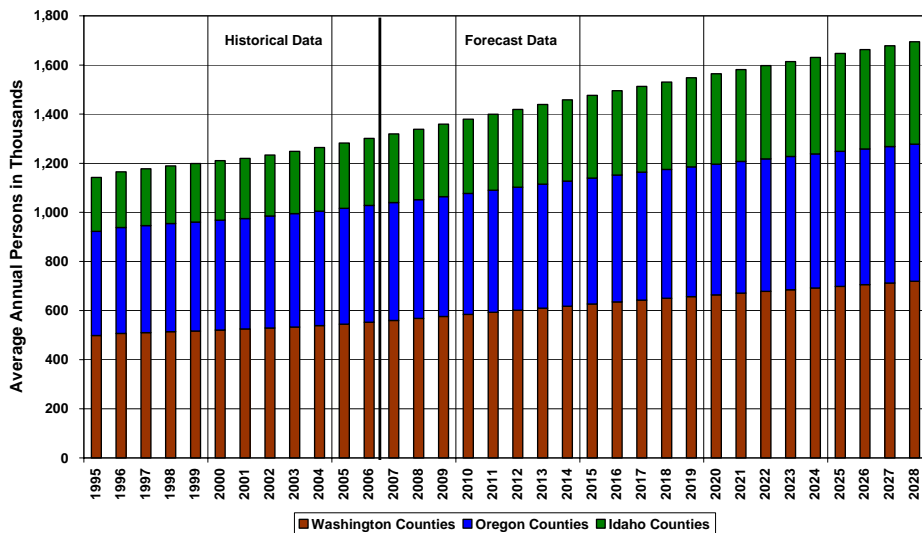
The ten year average compounded growth rate in jobs for these 15 counties was 1.9 percent from 1997-2007, and is forecast to be 1.6 percent for the period 2008-2028.

Service Area Non-Farm Employment Fifteen Principal Counties Served



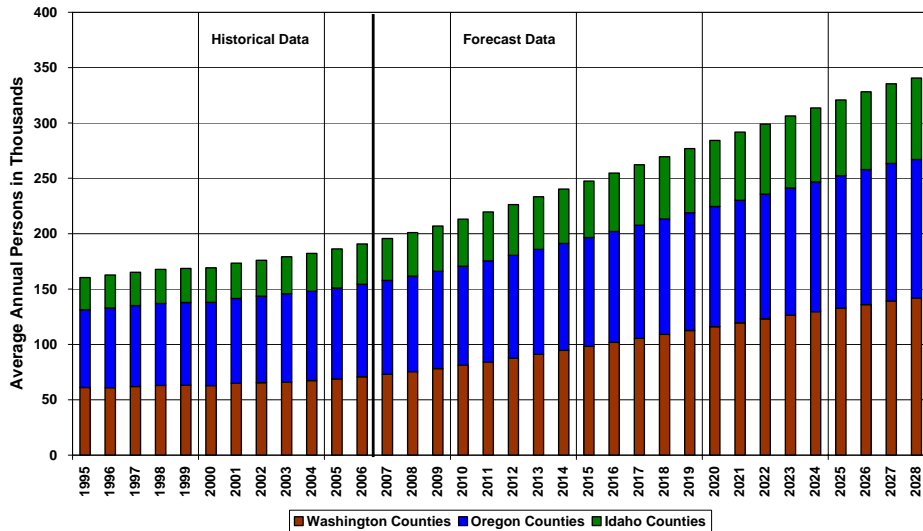
Next is Oregon resident population. Resident population growth was 1.1 percent compounded from 1997-2007, and is expected to rise to 1.2 percent from 2008-2028. Migration into these counties of retirement-age persons is the primary influence on growth.

Service Area Population Fifteen Principal Counties Served



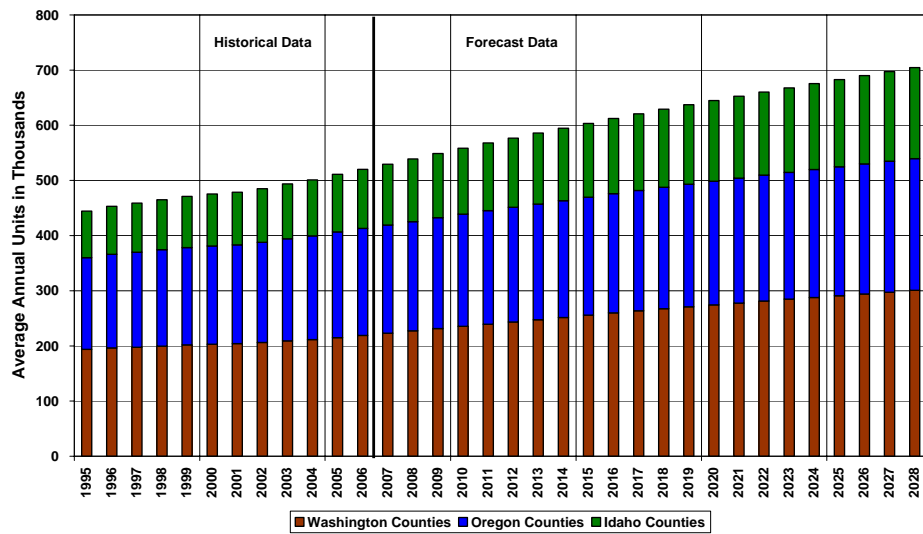
The next chart is persons 65 years and over. Between 1997 and 2007, the compounded growth rate was 1.7 percent. From 2008 to 2028, it accelerates to 2.7 percent. The 2007 estimate of the percentage of persons 65 and over in Avista's service area is 15 percent. By 2028 this estimate grows to 20 percent.

Service Area 65 and Over Population Fifteen Principal Counties Served



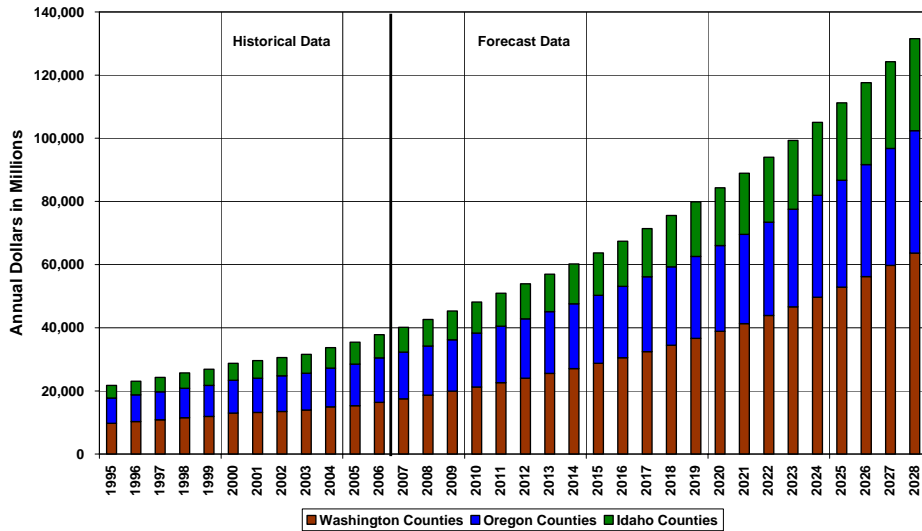
The next economic variable used in the preparation of Avista’s forecast is number of resident households in the service area. The household growth rate was 1.4 percent from 1997-2007, and is forecast at 1.3 percent for the 2008 to 2028 period.

Service Area Households Fifteen Principal Counties Served



The final economic variable used is the estimate of personal income. Besides wage and salary income, personal income includes rental income, transfer payments (like social security from all of the age 65 and over population, plus dividends and interest payments. Between 1997 and 2007, personal income grew at a compounded average rate of 5.2 percent. The forecast period has this growth rate increasing modestly to 5.8 percent, consistent with the proportion of persons 65 years and older and the expectation these individuals will be receiving supplemental payments from retirement sources.

Service Area Personal Income Fifteen Principal Counties Served



Price Elasticity

Avista participated in a National study of price elasticity conducted for the American Gas Association by a consulting group. As a benefit of our participation, the consultants provided separate price elasticity estimates for each of the three states. The study was discussed at the May 2, 2007 Technical Advisory Committee meeting in Portland, Oregon.

Price Elasticity		
American Gas Association, March 2007 Study Frederick Joutz and Robert P. Trost		
<u>Avista Specific Estimates</u>		
	<u>Long Run</u>	<u>Short Run</u>
Washington	-0.14	-0.12
Oregon	-0.13	-0.08
Idaho	-0.10	-0.05

Heating Degree Days

Heating degree day data is obtained from the National Weather Service. Avista uses the most recent 30-year period, which goes from 1971-2000. For Oregon, Avista uses four weather stations as the weather basis, corresponding to the areas within which natural gas services are provided, all of which are official National Weather Service stations. Heating degree day weather patterns between these areas are uncorrelated.

At the May 2, 2007 Technical Advisory Committee meeting, Avista presented some data and information regarding trends in heating degree days for its service area. Although not adopting a “Global Warming” baseline for forecasting, our willingness to discuss the subject was well received. It was decided that for

this IRP no action on adjusting forecasts for the warmer trends observed in recent years is necessary. However, as this issue continues to garner discussion further analysis will be warranted.

Base Case Forecasts of Customers Served

Base case customer forecasts for residential customers are consistent with our economic forecasts. The relationship has been changing over the last decade, and the forecasts take into account the most recent trends. As shown on the next figure, the number of residential customers per household grew rapidly between 1997 and 2001. About half of this growth was due to fuel switching of existing homes from other heating sources to natural gas.

After 2001, the number of customers switching to natural gas decreased, as the number of homes available to switch declined combined with dramatically higher natural gas retail prices to reduce the market demand.

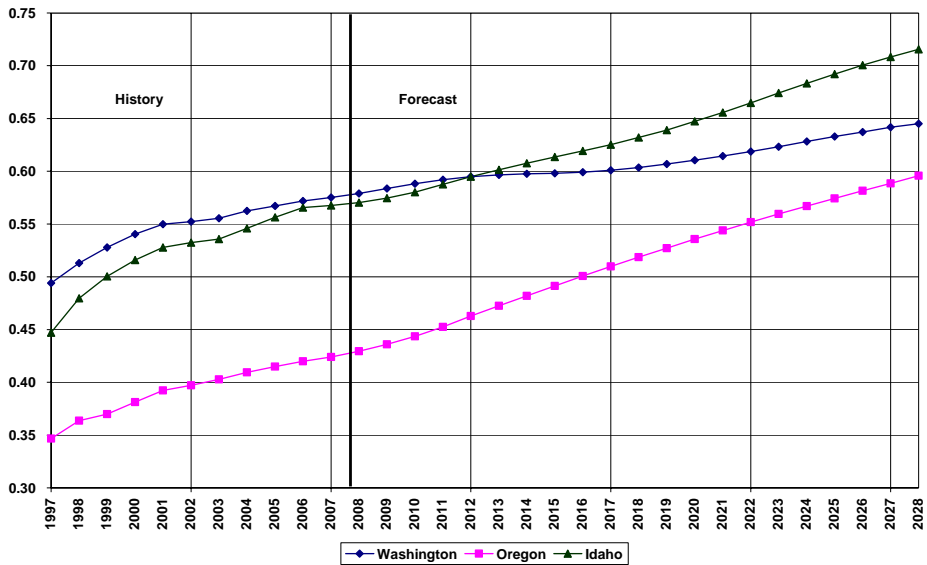
To produce the customer forecast, we look at recent trends in housing construction and the likelihood those homes will be served with natural gas. For example, in Washington, the number of single family homes being constructed has declined, with apartment dwellings taking a larger market share. Multi-family housing has traditionally been served with electricity only, limiting the number of available dwellings for natural gas service.

However, in the areas outside of the urban core of Spokane, including the rest of Washington, much of Idaho and Oregon, housing construction activity has maintained very high levels of single family homes, whether detached-style homes on individual lots or attached-style homes, like duplexes, townhomes, or condominiums. This market is traditionally served with natural gas water and space heat, and many of these homes now are being built with natural gas clothes dryers, gas ranges and ovens and natural gas fire places.

Because growth management laws are in place in all of Avista's natural gas service areas, we assume these construction trends in the urban growth areas will be served with natural gas, and do not anticipate any switching to electricity. We have an effort under way to encourage multi-family builders, who typically are building apartments for rental purposes to include natural gas appliances, but this forecast does not assume this effort will lead to a change in construction practices. We will continue to monitor activity in the multi-family housing segment.

The forecast assumes that the trends of the last five years continue into the future, adjusted for the sharp building cycle presently under way and based on the household forecasts provided by Global Insight. The chart shows the number of residential customers per household. The reason this ratio is increasing in the forecast period is because the ratio of homes being added is higher than the current ratio. This is largely driven by the assumption of nearly 100 percent of new homes having at least one natural gas service. Also, outside of the Medford and Spokane metropolitan areas, the multi-family construction market is very small. The only exception would be in Pullman and Moscow where growth in university enrollments is leading to apartment construction activity in those special areas. To a lesser extent, La Grande, Klamath Falls, and Ashland are seeing student growth-driven apartment construction, but to a small extent.

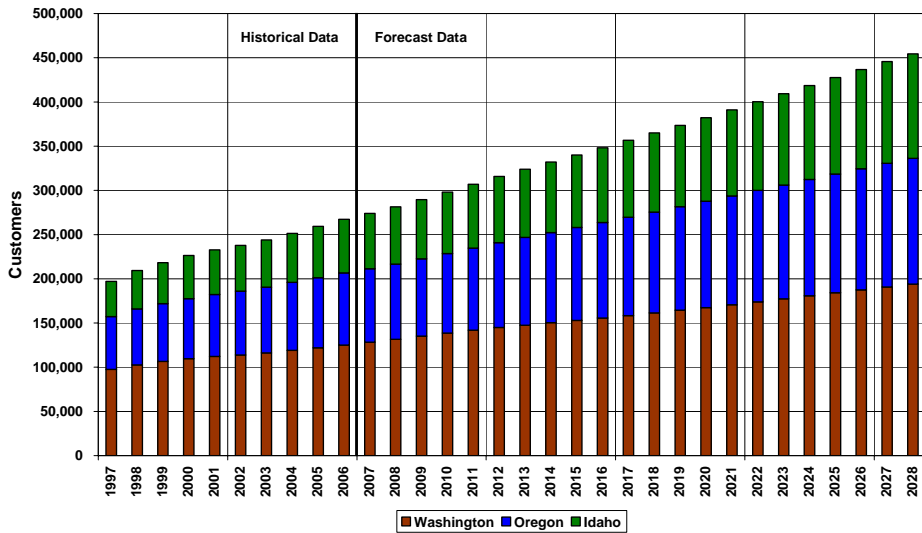
Residential Customers per Household Trends by State



The residential customer forecast is the product of the customers-per-household forecast and the household forecast from Global Insight.

Note: 2007 data includes 4 months actual, 8 months estimated

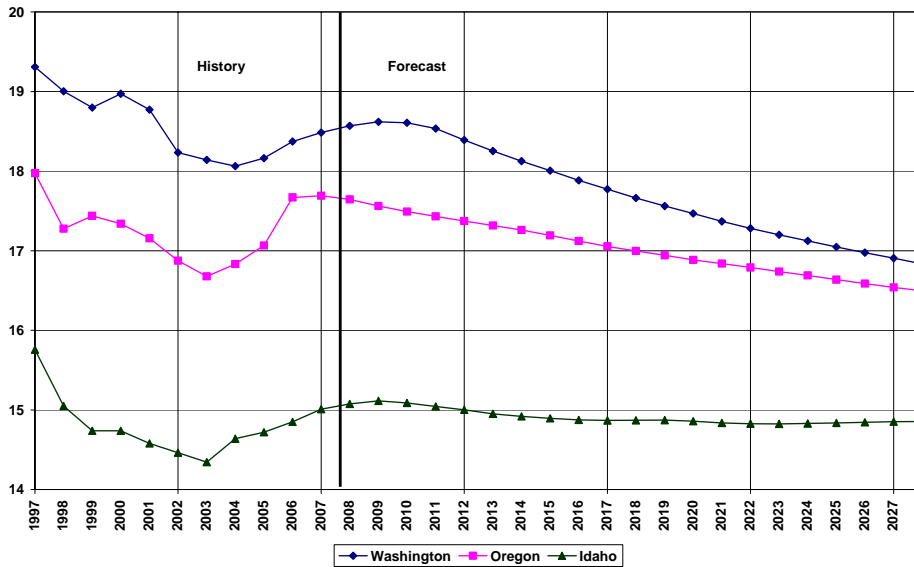
Residential Customers Served Average During the Year--All Residential Customers are Core Load



Core commercial customers served are based on job forecasts for each county, as well as the number of residential customers. The figure below shows ratio of non-farm workers per commercial customer. The previous ten years show declines in numbers of workers early in the period, followed by a buildup until recently. This build up is due to an increase in the number of big-box retail stores, which have moved from the very large metro areas into the smaller metro areas served by Avista. We believe that build out is largely complete. We do not anticipate new large mall-type complexes will be built in to any great extent. Therefore, in a few more years we expect the number of workers will again begin to decline as smaller shops and strip-mall developments fill into the neighborhood developments. We have taken into account

the known shopping areas that have been either permitted or have those proposed that have a high probability of being built in the near term forecast. As shown in the chart, although declines are forecast, they are very modest levels and reflect the particular characteristics of the existing mix of commercial developments in each state.

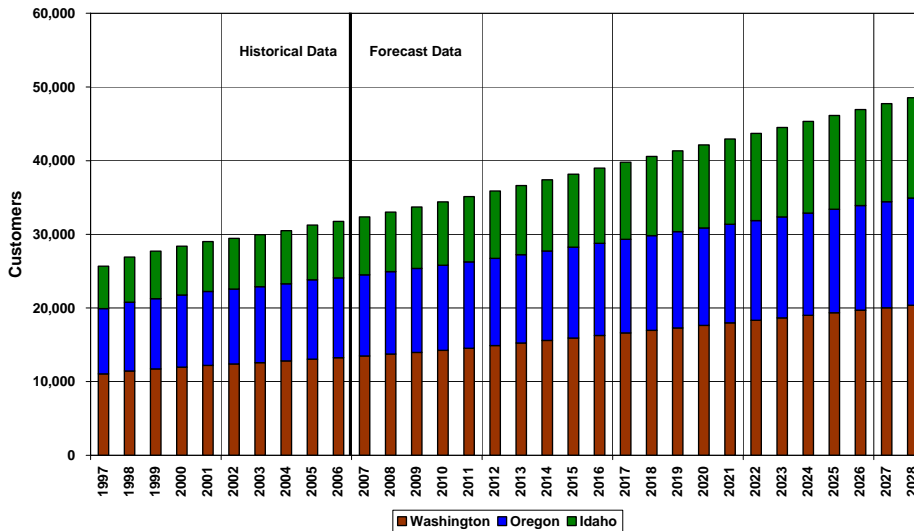
Non-Farm Employment per Commercial Customer Trends by State



The commercial customer forecast is based on job forecasts multiplied times the forecasted ratio of workers per customer as described above.

Note: 2007 data includes 4 months actual, 8 months estimated

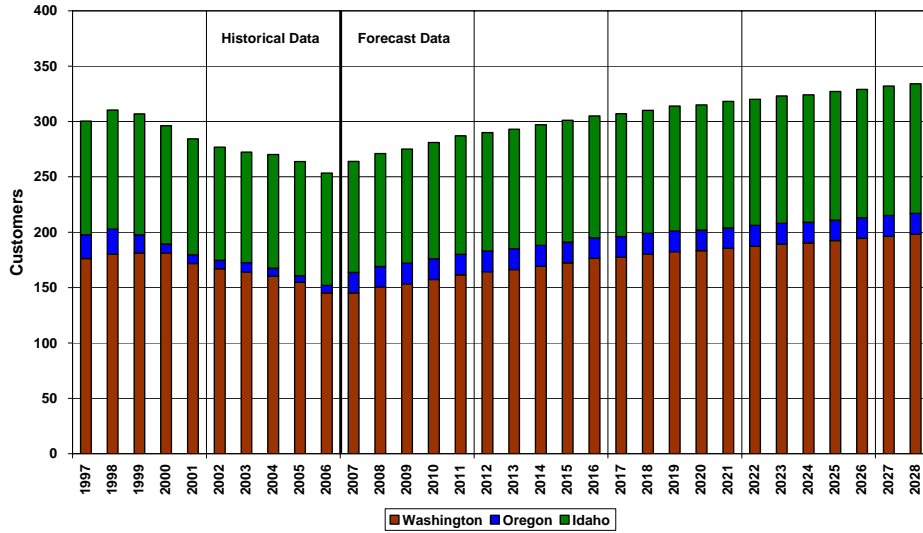
Core Commercial Customers Served
Average During the Year



Core industrial customers served are based on manufacturing job forecasts for each county. The number of manufacturing workers is expected to be growing slowly over the forecast period, leading to little change in the number of core firm industrial customers.

Note: 2007 data includes 4 months actual, 8 months estimated

Core Industrial Customers Served Average During the Year



Customer Forecast

Appendix 2.2

Appendix 2.2 - Customer Forecast - Number by Region
Expected Case

Month	WA/ID Res	WA/ID Com	WA/ID Firm Ind	WA/ID Total	MFR Res	MFR Com	Medford Firm Ind	MFR Total	Roseburg Res	Roseburg Com	Roseburg Firm Ind	ROS Total	KLA Res	KLA Com	KLA Firm Ind	KLA Total	LGD Res	LGD Com	LGD Firm Ind	LGD Total
Nov-07	193,203	21,592	247	215,042	50,373	6,448	9	56,830	13,163	2,145	2	15,310	13,882	1,606	5	15,493	6,449	882	5	7,336
Dec-07	194,376	21,688	250	216,314	50,851	6,481	9	57,341	13,285	2,153	2	15,440	14,056	1,626	4	15,686	6,514	882	2	7,398
Jan-08	194,726	21,642	248	216,617	51,074	6,498	9	57,571	13,327	2,159	2	15,488	14,110	1,643	4	15,757	6,554	883	1	7,438
Feb-08	194,827	21,768	252	216,847	51,144	6,505	9	57,658	13,367	2,160	2	15,529	14,146	1,654	5	15,805	6,565	883	1	7,449
Mar-08	195,157	21,737	250	217,144	51,241	6,520	9	57,770	13,419	2,163	2	15,584	14,174	1,655	5	15,834	6,555	884	1	7,440
Apr-08	195,051	21,713	250	217,014	51,252	6,487	9	57,748	13,340	2,149	2	15,472	14,134	1,648	5	15,787	6,547	880	1	7,428
May-08	195,373	21,719	250	217,342	51,220	6,491	9	57,720	13,303	2,167	2	15,472	14,039	1,635	5	15,679	6,524	880	2	7,406
Jun-08	195,700	21,751	253	217,704	51,047	6,481	9	57,530	13,219	2,163	2	15,384	13,926	1,631	5	15,562	6,486	881	2	7,369
Jul-08	195,531	21,716	256	217,503	50,866	6,475	9	57,350	13,220	2,158	2	15,380	13,809	1,637	5	15,532	6,486	881	2	7,428
Aug-08	195,802	21,822	253	217,877	50,833	6,479	9	57,319	13,161	2,152	2	15,380	13,785	1,631	5	15,532	6,338	885	3	7,276
Sep-08	196,372	21,910	255	218,720	50,891	6,503	9	57,403	13,127	2,149	2	15,278	13,799	1,640	5	15,444	6,324	887	7	7,219
Oct-08	197,952	21,935	252	220,139	51,263	6,490	9	57,762	13,270	2,152	2	15,424	14,002	1,621	5	15,628	6,450	887	7	7,344
Nov-09	198,723	22,073	254	221,050	51,773	6,573	9	58,355	13,513	2,170	2	15,685	14,232	1,656	5	15,873	6,549	887	5	7,441
Dec-08	199,896	22,169	256	222,321	52,301	6,606	9	58,916	13,635	2,173	2	15,932	14,406	1,656	4	16,066	6,614	887	2	7,503
Jan-09	200,476	22,129	252	222,828	52,374	6,609	9	58,992	13,727	2,203	2	15,932	14,406	1,656	4	16,066	6,614	887	2	7,503
Feb-09	200,548	22,255	256	223,059	52,494	6,616	9	59,119	13,767	2,204	2	15,973	14,400	1,671	4	16,135	6,654	888	1	7,544
Mar-09	200,878	22,224	254	223,356	52,641	6,631	9	59,281	13,819	2,207	2	16,028	14,524	1,682	5	16,183	6,665	888	1	7,554
Apr-09	200,772	22,200	254	223,226	52,702	6,602	9	59,309	13,740	2,193	2	16,028	14,484	1,676	5	16,212	6,655	889	1	7,545
May-09	201,094	22,206	257	223,554	52,720	6,620	9	59,331	13,703	2,211	2	16,028	14,389	1,663	5	16,057	6,624	885	2	7,511
Jun-09	201,421	22,238	257	223,916	52,547	6,592	9	59,148	13,619	2,207	2	15,828	14,276	1,659	5	16,042	6,586	886	2	7,474
Jul-09	201,452	22,203	260	223,915	52,366	6,586	9	58,961	13,670	2,202	2	15,874	14,290	1,665	5	15,940	6,586	886	2	7,474
Aug-09	201,723	22,309	257	224,289	52,231	6,590	9	58,830	13,670	2,202	2	15,874	14,290	1,665	5	15,940	6,463	890	3	7,353
Sep-09	202,458	22,397	259	225,114	52,391	6,614	9	59,014	13,577	2,196	2	15,772	14,199	1,668	5	15,872	6,428	890	3	7,324
Oct-09	203,873	22,422	256	226,551	52,813	6,601	9	59,423	13,720	2,196	2	15,918	14,402	1,649	5	16,056	6,500	892	7	7,424
Nov-09	204,644	22,560	258	227,462	53,373	6,684	9	60,066	13,963	2,214	2	16,179	14,632	1,644	5	16,301	6,649	892	5	7,546
Dec-09	205,817	22,656	260	228,733	53,951	6,717	9	60,677	14,085	2,217	2	16,304	14,806	1,684	4	16,494	6,714	892	2	7,608
Jan-10	206,317	22,665	258	229,240	54,024	6,706	9	60,739	14,227	2,245	2	16,474	14,806	1,697	4	16,561	6,754	892	1	7,647
Feb-10	206,418	22,791	262	229,471	54,144	6,713	9	60,866	14,267	2,246	2	16,515	14,896	1,708	5	16,609	6,765	892	1	7,658
Mar-10	206,748	22,760	260	229,768	54,291	6,728	9	61,028	14,319	2,249	2	16,570	14,924	1,709	5	16,638	6,755	893	1	7,649
Apr-10	206,642	22,736	260	229,638	54,252	6,695	9	60,956	14,240	2,235	2	16,477	14,789	1,702	5	16,591	6,747	889	1	7,637
May-10	206,964	22,742	260	229,966	54,207	6,699	9	60,978	14,203	2,249	2	16,458	14,789	1,689	5	16,483	6,724	889	2	7,615
Jun-10	207,291	22,774	263	230,328	54,097	6,689	9	60,795	14,119	2,249	2	16,370	14,676	1,685	5	16,366	6,686	890	2	7,578
Jul-10	207,422	22,739	266	230,427	53,916	6,683	9	60,608	14,170	2,244	2	16,416	14,740	1,691	5	16,436	6,563	892	2	7,518
Aug-10	207,693	22,845	263	230,801	53,781	6,687	9	60,477	14,171	2,244	2	16,351	14,655	1,685	5	16,325	6,538	894	3	7,435
Sep-10	208,428	22,933	262	231,626	53,941	6,711	9	60,661	14,117	2,238	2	16,314	14,649	1,694	5	16,348	6,524	897	7	7,428
Oct-10	209,843	22,958	262	233,063	54,413	6,698	9	61,120	14,220	2,235	2	16,460	14,852	1,675	5	16,532	6,650	896	7	7,553
Nov-10	210,614	23,096	264	233,974	55,023	6,814	9	61,813	14,463	2,256	2	16,721	15,082	1,690	5	16,776	6,749	896	5	7,650
Dec-10	211,787	23,192	266	235,245	55,651	6,814	9	62,474	14,585	2,259	2	16,846	15,262	1,710	4	16,970	6,814	896	2	7,712
Jan-11	212,288	23,226	264	235,778	55,724	6,792	9	62,525	14,687	2,279	2	17,008	15,366	1,717	4	17,081	6,854	896	1	7,702
Feb-11	212,389	23,352	268	236,009	55,794	6,799	9	62,602	14,867	2,280	2	17,149	15,396	1,728	5	17,129	6,865	896	1	7,702
Mar-11	212,719	23,321	266	236,306	55,941	6,814	9	62,764	14,919	2,283	2	17,204	15,424	1,729	5	17,158	6,855	897	1	7,713
Apr-11	212,613	23,297	266	236,176	55,902	6,785	9	62,692	14,840	2,269	2	17,111	15,384	1,722	5	17,111	6,847	893	1	7,711
May-11	213,262	23,333	269	236,504	55,920	6,775	9	62,714	14,803	2,287	2	17,092	15,289	1,709	5	17,003	6,824	893	2	7,719
Jun-11	213,624	23,406	272	236,866	55,747	6,775	9	62,531	14,719	2,283	2	17,004	15,176	1,705	5	16,886	6,786	894	2	7,682
Jul-11	213,564	23,406	272	236,866	55,747	6,775	9	62,531	14,719	2,283	2	17,004	15,176	1,705	5	16,956	6,663	896	2	7,561
Aug-11	214,299	23,406	269	237,239	55,431	6,773	9	62,344	14,770	2,278	2	16,985	15,135	1,705	5	16,845	6,638	898	3	7,539
Sep-11	215,714	23,519	271	239,004	55,591	6,797	9	62,397	14,711	2,272	2	16,948	15,149	1,714	5	16,868	6,624	901	7	7,552
Oct-11	216,485	23,519	268	239,501	56,113	6,784	9	62,906	14,820	2,272	2	17,094	15,352	1,695	5	17,052	6,750	900	7	7,657
Nov-11	217,658	23,753	272	241,683	57,451	6,900	9	63,649	15,063	2,290	2	17,355	15,582	1,710	5	17,297	6,849	900	5	7,754
Dec-11	218,307	23,832	267	242,941	57,640	6,878	9	64,360	15,185	2,293	2	17,480	15,756	1,730	4	17,490	6,914	900	2	7,816
Jan-12	217,968	23,961	271	242,201	57,712	6,885	9	64,527	15,531	2,316	2	17,849	15,870	1,738	4	17,553	6,960	900	1	7,861
Feb-12	218,307	23,930	269	242,506	57,864	6,900	9	64,606	15,573	2,317	2	17,892	15,847	1,751	5	17,602	6,971	900	1	7,872
Mar-12	218,198	23,905	269	242,372	57,824	6,867	9	64,700	15,627	2,320	2	17,950	15,876	1,751	5	17,632	6,961	901	1	7,863
Apr-																				

Appendix 2.2 - Customer Forecast - Number by Region
Expected Case

	WA/ID Res	WA/ID Com	WA/ID Firm Ind	WA/ID Total	MFR Res	Medford Com	MFR Firm Ind	MFR Total	ROSBurg Res	ROSBurg Firm Ind	ROSBurg Total	KLA Res	KLA Firm Ind	KLA Total	La Grande Res	La Grande Firm Ind	La Grande Total	
Nov-13	227,546	24,892	276	252,714	60,550	7,037	9	67,595	16,460	2,364	18,826	16,457	1,752	18,214	7,076	908	5	7,999
Dec-13	228,779	24,993	278	254,050	61,273	7,070	9	68,352	16,593	2,367	18,962	16,641	1,772	18,417	7,143	908	2	8,053
Jan-14	228,206	25,044	274	253,524	61,172	7,048	9	68,229	16,851	2,391	19,244	16,656	1,781	18,421	7,187	908	1	8,096
Feb-14	228,314	25,180	278	253,772	61,249	7,055	9	68,314	16,896	2,392	19,291	16,675	1,793	18,472	7,199	908	1	8,108
Mar-14	228,669	25,147	276	254,091	61,411	7,071	9	68,490	16,955	2,396	19,353	16,705	1,794	18,504	7,188	909	1	8,098
Apr-14	228,555	25,121	276	253,952	61,368	7,037	9	68,437	16,864	2,381	19,249	16,662	1,786	18,453	7,180	905	1	8,066
May-14	228,901	25,127	276	254,304	61,388	7,041	9	68,437	16,824	2,400	19,225	16,559	1,773	18,337	7,156	905	2	8,063
Jun-14	229,253	25,162	279	254,693	61,198	7,030	9	68,237	16,728	2,396	19,126	16,456	1,769	18,210	7,116	906	2	8,024
Jul-14	229,286	25,124	282	254,692	60,999	7,024	9	68,032	16,786	2,390	19,178	16,506	1,775	18,286	6,987	908	2	7,897
Aug-14	229,577	25,238	279	255,095	60,851	7,028	9	67,888	16,719	2,384	19,105	16,392	1,769	18,166	6,961	910	3	7,874
Sep-14	230,367	25,333	281	255,982	61,026	7,053	9	68,089	16,883	2,381	19,063	16,407	1,778	18,190	6,946	913	7	7,866
Oct-14	231,888	25,360	278	257,527	61,599	7,040	9	68,648	16,840	2,384	19,229	16,407	1,778	18,390	7,078	912	7	7,997
Nov-14	233,717	25,509	280	258,506	62,324	7,126	9	69,459	16,683	2,403	19,524	16,672	1,758	18,655	7,182	912	5	8,099
Dec-14	233,978	25,613	282	259,873	63,068	7,160	9	70,237	17,258	2,406	19,666	17,064	1,795	18,863	7,250	912	2	8,164
Jan-15	233,178	25,650	278	259,106	62,951	7,147	9	69,972	17,088	2,438	19,972	17,048	1,808	18,840	7,323	913	1	8,237
Feb-15	233,289	25,790	282	259,360	63,030	7,155	9	70,194	17,580	2,439	20,021	17,088	1,821	18,913	7,335	913	1	8,249
Mar-15	233,651	25,755	280	259,687	63,196	7,170	9	70,376	17,642	2,442	20,086	17,119	1,821	18,945	7,325	914	1	8,239
Apr-15	233,535	25,729	280	259,544	63,152	7,136	9	70,297	17,548	2,427	19,977	17,075	1,813	18,893	7,316	910	1	8,227
May-15	233,889	25,735	280	259,904	63,173	7,140	9	70,322	17,504	2,446	19,953	16,969	1,800	18,774	7,291	910	2	8,203
Jun-15	234,248	25,771	283	260,302	62,977	7,129	9	70,116	17,405	2,442	19,849	16,844	1,795	18,644	7,251	911	2	8,163
Jul-15	234,282	25,732	286	260,300	62,773	7,123	9	69,905	17,465	2,437	19,904	16,915	1,802	18,722	7,119	913	2	8,034
Aug-15	234,580	25,849	283	260,712	62,620	7,127	9	69,756	17,396	2,430	19,828	16,798	1,795	18,599	7,093	915	3	8,010
Sep-15	235,387	25,946	285	261,618	62,801	7,153	9	69,963	17,355	2,427	19,784	16,814	1,805	18,624	7,078	918	7	8,136
Oct-15	236,941	25,974	282	263,197	63,391	7,139	9	70,539	17,525	2,430	19,957	17,039	1,785	18,829	7,212	917	7	8,136
Nov-15	239,076	26,126	284	264,198	64,136	7,226	9	71,371	17,812	2,453	20,263	17,295	1,801	19,100	7,318	917	5	8,206
Dec-15	237,788	26,232	286	264,599	64,902	7,261	9	72,172	17,956	2,453	20,411	17,488	1,821	19,314	7,388	917	2	8,306
Jan-16	238,249	26,257	282	264,787	64,780	7,257	9	72,046	18,237	2,488	20,726	17,461	1,839	19,304	7,460	918	1	8,379
Feb-16	238,362	26,364	284	265,047	64,861	7,265	9	72,777	18,286	2,489	20,777	17,502	1,851	19,358	7,472	918	1	8,391
Mar-16	238,732	26,344	284	265,380	65,032	7,281	9	72,135	18,350	2,492	20,844	17,534	1,852	19,391	7,461	919	1	8,368
Apr-16	238,613	26,337	284	265,234	64,987	7,246	9	72,241	18,350	2,477	20,311	17,488	1,845	19,338	7,452	919	1	8,341
May-16	238,975	26,344	284	265,602	65,008	7,250	9	72,267	18,207	2,496	20,706	17,380	1,831	19,216	7,427	915	2	8,344
Jun-16	239,342	26,380	287	266,008	64,807	7,239	9	72,055	18,104	2,492	20,598	17,252	1,826	19,083	7,386	916	2	8,304
Jul-16	239,377	26,340	290	266,007	64,596	7,233	9	71,838	18,069	2,487	20,576	17,324	1,832	19,162	7,252	918	2	8,172
Aug-16	239,681	26,460	287	266,428	64,439	7,237	9	71,685	18,094	2,480	20,576	17,205	1,826	19,036	7,225	920	3	8,148
Sep-16	240,506	26,559	289	267,354	64,625	7,263	9	71,897	18,052	2,477	20,531	17,221	1,836	19,062	7,209	923	7	8,140
Oct-16	242,094	26,588	286	268,967	65,232	7,249	9	72,490	18,228	2,480	20,710	17,452	1,816	19,272	7,347	922	7	8,276
Nov-16	242,959	26,744	288	269,991	65,999	7,338	9	73,366	18,527	2,500	21,029	17,711	1,832	19,550	7,454	922	5	8,381
Dec-16	244,275	26,852	290	271,418	66,787	7,373	9	74,169	18,677	2,503	21,182	17,911	1,853	19,768	7,525	922	2	8,449
Jan-17	243,415	26,866	288	270,560	66,596	7,365	9	73,970	18,952	2,536	21,488	17,928	1,868	19,758	7,581	923	1	8,505
Feb-17	243,530	27,007	284	270,826	66,680	7,372	9	74,061	19,003	2,536	21,541	17,928	1,880	19,813	7,593	923	1	8,517
Mar-17	243,909	26,972	286	271,166	66,855	7,389	9	74,253	19,069	2,539	21,610	17,961	1,881	19,847	7,582	924	1	8,507
Apr-17	243,787	26,944	286	271,017	66,809	7,353	9	74,170	18,968	2,524	21,467	17,914	1,874	19,793	7,573	920	1	8,494
May-17	244,156	26,951	286	271,393	66,830	7,357	9	74,196	18,921	2,544	21,585	17,803	1,860	19,648	7,548	920	2	8,470
Jun-17	244,531	26,988	289	271,808	66,623	7,346	9	73,979	18,814	2,539	21,467	17,746	1,855	19,532	7,506	921	2	8,429
Jul-17	244,567	26,947	292	272,236	66,407	7,340	9	73,756	18,879	2,534	21,414	17,746	1,862	19,413	7,370	923	2	8,295
Aug-17	244,878	27,070	289	272,236	66,246	7,344	9	73,599	18,803	2,527	21,332	17,624	1,855	19,287	7,342	925	3	8,270
Sep-17	245,720	27,172	291	273,183	66,437	7,370	9	73,816	18,760	2,524	21,286	17,640	1,865	19,150	7,326	928	7	8,400
Oct-17	247,343	27,201	288	274,831	67,061	7,356	9	74,426	18,943	2,527	21,472	17,877	1,844	19,276	7,466	927	7	8,400
Nov-17	248,227	27,360	290	275,877	67,850	7,446	9	75,305	19,253	2,547	21,802	18,145	1,861	19,410	7,575	927	5	8,507
Dec-17	249,572	27,471	292	277,335	68,660	7,482	9	76,151	19,409	2,550	22,123	18,349	1,882	19,544	7,647	927	2	8,576
Jan-18	248,796	27,463	289	276,527	68,337	7,465	9	75,811	19,253	2,547	21,962	18,299	1,874	19,423	7,617	927	1	8,630
Feb-18	248,896	27,612	291	276,799	68,423	7,472	9	75,905	19,697	2,578	22,223	18,342	1,906	19,533	7,714	927	1	8,643
Mar-18	249,283	27,575	289	277,147	68,604	7,489	9	76,101	19,766	2,581	22,349	18,375	1,907	19,627	7,703	928	1	8,632
Apr-18	249,159	27,547	289	276,994	68,556	7,453	9	76,017	19,662	2,565	22,229	18,327	1,899	19,504	7,694	924	1	8,619
May-18	249,536	27,554	289	277,379	68,578	7,457	9	76,044	19,613	2,566	22,200	18,214	1,885	19,445	7,668	924	2	8,594
Jun-18	249,919	27,592	292	277,801	68,366	7,446	9	75,821	19,501	2,581	22,084	18,080	1,881	19,945	7,626	925	2	8,554
Jul-18	249,956	27,550	295	278,101	68,144	7,439	9	75,592	19,569	2,575	22,146	18,156	1,887	20,048	7,487	927	2	8,471
Aug-18	250,273	27,676	292	278,241	67,978	7,444	9	75,431	19,569	2,569	22,061	18,031	1,881	19,916	7,459	929	3	8,392
Sep-18	251,135	27,780	294	279,208	68,174	7,470	9	75,654	19,446	2,569	22,013	18,047	1,874	19,744	7,444	932	7	8,383
Oct-18	252,793	27,809	291	280,893	68,814	7,456	9	76,279	19,635	2,569	22,206	18,289	1,870	19,614	7,585	931	7	8,524
Nov-18	253,696	27,972	293	281,962	69,624	7,547	9	77,180	19,957	2,589	22,548	18,563	1,886	19,644	7,696	931	5	8,633
Dec-18	255,071	28,086	295	283,452	70,455	7,583	9	78,048	20,119	2,592	22,713	18,770	1,908	19,769	7,769	931	2	8,703
Jan-19	254,242	28,064	291	282,596	70,091	7,563	9	77,644	20,337	2,617								

Appendix 2.2 - Customer Forecast - Number by Region
Expected Case

WA/ID Res	WA/ID Com	WA/ID Firm Ind	WA/ID Total	MFR Res	MFR Com	Medford Firm Ind	MFR Firm Ind	MFR Total	ROS Res	ROS Com	Roseburg Firm Ind	ROS Firm Ind	ROS Total	KLA Res	KLA Com	Klamath Falls Firm Ind	KLA Firm Ind	KLA Total	LGD Res	LGD Com	La Grande Firm Ind	LGD Firm Ind	LGD Total
Nov-19	259,268	28,585	297	71,411	7,647	7,647	9	79,056	20,661	2,630	2	2	23,293	18,969	1,912	5	20,886	7,802	936	5	5	8,743	
Dec-19	260,673	28,701	299	72,264	7,684	7,684	9	79,956	20,828	2,633	2	2	23,464	19,181	1,934	4	21,119	7,876	936	2	2	8,814	
Jan-20	260,673	28,689	299	71,833	7,667	7,667	9	79,509	21,041	2,660	2	2	23,703	19,112	1,947	4	21,062	7,929	936	1	1	8,866	
Feb-20	260,126	28,845	296	71,923	7,675	7,675	9	79,607	21,098	2,661	2	2	23,761	19,156	1,959	5	21,120	7,942	936	1	1	8,879	
Mar-20	260,530	28,806	294	72,113	7,692	7,692	9	79,813	21,172	2,664	2	2	23,838	19,191	1,960	5	21,156	7,930	937	1	1	8,868	
Apr-20	260,400	28,777	294	72,062	7,654	7,654	9	79,726	21,060	2,648	2	2	23,710	19,141	1,952	5	21,099	7,921	933	1	1	8,855	
May-20	260,794	28,874	294	72,086	7,659	7,659	9	79,754	21,007	2,669	2	2	23,678	19,023	1,937	5	20,966	7,894	933	2	2	8,829	
Jun-20	261,195	28,824	297	71,865	7,648	7,648	9	79,519	20,888	2,664	2	2	23,555	18,883	1,933	5	20,821	7,851	934	2	2	8,786	
Jul-20	261,233	28,780	300	71,629	7,641	7,641	9	79,279	20,907	2,659	2	2	23,621	18,962	1,940	5	20,970	7,708	938	2	2	8,646	
Aug-20	261,565	28,911	297	71,455	7,645	7,645	9	79,110	20,877	2,652	2	2	23,530	18,832	1,933	5	20,770	7,679	938	3	3	8,620	
Sep-20	262,465	29,020	299	71,661	7,673	7,673	9	79,343	20,828	2,648	2	2	23,479	18,849	1,943	5	20,797	7,663	941	7	7	8,611	
Oct-20	264,198	29,051	296	72,334	7,658	7,658	9	80,001	21,031	2,652	2	2	23,685	19,102	1,922	5	21,028	7,809	940	7	7	8,756	
Nov-20	265,142	29,221	298	73,185	7,752	7,752	9	80,946	21,376	2,673	2	2	24,051	19,388	1,939	5	21,331	7,923	940	5	5	8,868	
Dec-20	266,579	29,340	300	74,059	7,789	7,789	9	81,857	21,549	2,676	2	2	24,228	19,604	1,961	4	21,570	7,999	940	2	2	8,941	
Jan-21	265,962	29,316	294	73,525	7,757	7,757	9	81,291	21,734	2,693	2	2	24,429	19,524	1,967	4	21,495	8,035	940	1	1	8,976	
Feb-21	266,088	29,475	299	73,617	7,765	7,765	9	81,391	21,793	2,694	2	2	24,489	19,570	1,980	4	21,555	8,048	940	1	1	8,969	
Mar-21	266,502	29,436	297	73,811	7,783	7,783	9	81,602	21,869	2,698	2	2	24,569	19,606	1,981	5	21,591	8,036	941	1	1	8,978	
Apr-21	266,369	29,405	297	73,759	7,745	7,745	9	81,513	21,753	2,681	2	2	24,437	19,555	1,973	5	21,532	8,027	937	1	1	8,945	
May-21	266,772	29,453	297	73,883	7,749	7,749	9	81,542	21,699	2,703	2	2	24,404	19,434	1,958	5	21,397	8,000	937	2	2	8,929	
Jun-21	267,182	29,413	300	73,785	7,738	7,738	9	81,302	21,576	2,698	2	2	24,276	19,290	1,953	5	21,249	7,955	938	2	2	8,895	
Jul-21	267,221	29,409	303	73,316	7,731	7,731	9	81,056	21,651	2,692	2	2	24,345	19,372	1,960	5	21,337	7,811	940	2	2	8,753	
Aug-21	267,560	29,543	300	73,138	7,736	7,736	9	80,883	21,564	2,685	2	2	24,251	19,238	1,960	5	21,196	7,782	942	3	3	8,727	
Sep-21	268,481	29,654	302	73,349	7,763	7,763	9	81,121	21,514	2,681	2	2	24,198	19,256	1,963	5	21,225	7,766	945	7	7	8,718	
Oct-21	270,250	29,686	299	74,038	7,748	7,748	9	81,795	21,724	2,685	2	2	24,411	19,514	1,942	5	21,461	7,913	944	7	7	8,864	
Nov-21	272,689	29,981	303	74,909	7,843	7,843	9	82,671	22,080	2,706	2	2	24,788	19,806	1,959	5	21,770	8,029	944	5	5	8,978	
Dec-21	272,689	29,981	303	74,909	7,843	7,843	9	82,671	22,080	2,706	2	2	24,788	19,806	1,959	5	21,770	8,029	944	5	5	8,978	
Jan-22	272,119	29,942	296	75,167	7,854	7,854	9	83,029	22,427	2,710	2	2	24,971	19,937	1,992	4	22,013	8,106	944	2	2	9,051	
Feb-22	272,248	30,104	301	75,261	7,862	7,862	9	83,132	22,488	2,733	2	2	25,161	19,984	2,004	4	21,993	8,141	944	1	1	9,009	
Mar-22	272,671	30,033	299	75,029	7,879	7,879	9	83,447	22,566	2,737	2	2	25,305	20,020	2,006	5	22,031	8,142	945	1	1	9,008	
Apr-22	272,535	30,043	299	75,077	7,841	7,841	9	83,257	22,447	2,720	2	2	25,169	19,968	1,997	5	21,970	8,133	941	1	1	9,074	
May-22	273,948	30,041	299	75,431	7,846	7,846	9	83,286	22,391	2,742	2	2	25,134	19,845	1,982	5	21,681	8,106	941	2	2	9,048	
Jun-22	273,367	30,082	302	75,198	7,834	7,834	9	83,003	22,264	2,737	2	2	25,003	19,698	1,978	5	21,681	8,060	942	2	2	9,004	
Jul-22	273,407	30,037	305	74,963	7,827	7,827	9	82,790	22,341	2,731	2	2	25,074	19,781	1,985	5	21,771	7,914	944	2	2	8,860	
Aug-22	273,754	30,174	302	74,771	7,832	7,832	9	82,612	22,252	2,724	2	2	24,977	19,645	1,978	5	21,628	7,885	946	3	3	8,833	
Sep-22	274,697	30,287	304	74,987	7,860	7,860	9	82,856	22,200	2,720	2	2	24,922	19,663	1,988	5	21,656	7,868	949	7	7	8,824	
Oct-22	276,510	30,319	301	75,691	7,844	7,844	9	83,545	22,417	2,724	2	2	25,142	19,927	1,966	4	21,898	8,018	948	7	7	8,973	
Nov-22	278,520	30,497	303	76,582	7,940	7,940	9	84,531	22,784	2,745	2	2	25,531	20,225	1,983	5	22,214	8,135	948	5	5	9,008	
Dec-22	279,002	30,621	305	77,496	7,979	7,979	9	85,484	22,969	2,749	2	2	25,719	20,451	2,007	4	22,462	8,212	948	2	2	9,162	
Jan-23	278,608	30,567	299	76,784	7,952	7,952	9	84,745	23,109	2,771	2	2	25,882	20,337	2,016	4	22,462	8,212	948	1	1	9,181	
Feb-23	278,608	30,733	304	76,880	7,960	7,960	9	84,850	23,171	2,772	2	2	25,946	20,385	2,029	5	22,419	8,245	948	1	1	9,194	
Mar-23	279,041	30,692	302	77,083	7,978	7,978	9	85,070	23,252	2,776	2	2	26,030	20,462	2,030	5	22,457	8,233	949	1	1	9,183	
Apr-23	279,324	30,668	302	77,029	7,939	7,939	9	84,977	23,129	2,759	2	2	25,890	20,342	2,002	5	22,396	8,224	945	1	1	9,169	
May-23	279,753	30,710	305	77,054	7,944	7,944	9	85,007	23,072	2,781	2	2	25,854	20,243	2,007	5	22,255	8,196	945	2	2	9,143	
Jun-23	279,794	30,664	308	76,815	7,932	7,932	9	84,757	22,941	2,776	2	2	25,792	20,093	2,002	5	22,192	8,003	948	2	2	9,098	
Jul-23	280,149	30,804	305	76,380	7,925	7,925	9	84,500	23,020	2,770	2	2	25,693	20,178	2,009	5	22,104	8,150	946	2	2	9,063	
Aug-23	281,114	30,919	307	76,666	7,958	7,958	9	84,319	22,928	2,762	2	2	25,636	20,059	2,002	5	22,046	7,973	950	3	3	8,926	
Sep-23	282,970	30,952	304	77,320	7,943	7,943	9	84,568	22,875	2,759	2	2	25,666	20,058	2,013	5	22,075	7,956	953	7	7	9,066	
Oct-23	285,520	31,134	306	78,229	8,040	8,040	9	85,272	23,098	2,762	2	2	25,863	20,326	1,990	5	22,322	8,107	952	7	7	9,066	
Nov-23	285,520	31,260	308	79,163	8,079	8,079	9	86,278	23,477	2,784	2	2	26,263	20,651	2,008	5	22,644	8,226	952	5	5	9,183	
Dec-23	284,832	31,193	300	78,439	8,054	8,054	9	86,414	23,667	2,788	2	2	26,457	20,861	2,032	4	22,897	8,304	952	2	2	9,258	
Jan-24	284,968	31,362	305	78,449	8,062	8,062	9	86,520	23,802	2,812	2	2	26,616	20,725	2,043	4	22,772	8,323	952	1	1	9,276	
Feb-24	285,410	31,320	303	78,656	8,080	8,080	9	86,745	23,866	2,813	2	2	26,681	20,773	2,056	4	22,835	8,336	952	1	1	9,289	
Mar-24	285,410	31,288	303	78,601	8,041	8,041	9	86,651	23,950	2,817	2	2	26,768	20,811	2,057	5	22,873	8,324	953	1	1	9,278	
Apr-24	285,700	31,296	303	78,627	8,045	8,045	9	86,681	23,823	2,799	2	2	26,624	20,757	2,049	5	22,811	8,314	949	1	1	9,264	
May-24	286,139	31,339	306	78,833	8,034	8,034	9	86,426	23,763	2,822	2	2	26,587	20,629	2,034	5	22,668	8,286	949	2	2	9,238	
Jun-24	286,181	31,292	309	78,129	8,026	8,026	9	86,164	23,629	2,817	2	2	26,447	20,476	2,029	5	22,510	8,240	950	2	2	9,192	
Jul-24	286,544	31,434	306	77,939	8,031	8,031	9	85,979	23,711	2,803	2												

Appendix 2.2 - Customer Forecast - Number by Region
Expected Case

	WA/ID Res	WA/ID Com	WA/ID Firm Ind	WA/ID Total	MFR Res	MFR Com	Medford Firm Ind	MFR Total	ROS Res	ROS Com	Roseburg Firm Ind	ROS Total	KLA Res	KLA Com	Klamath Falls Firm Ind	KLA Total	LGD Res	LGD Com	La Grande Firm Ind	LGD Total
Nov-25	296,946	32,409	310	329,665	81,397	8,248	9	89,655	24,885	2,869	2	27,756	21,430	2,044	5	23,499	8,408	961	5	9,373
Dec-25	296,555	32,541	313	331,408	82,370	8,288	9	90,666	25,086	2,873	2	27,961	21,670	2,088	4	23,761	8,487	961	2	9,450
Jan-26	297,446	32,445	305	330,196	81,448	8,260	9	89,718	25,210	2,897	2	28,109	21,538	2,099	4	23,640	8,489	961	1	9,451
Feb-26	297,588	32,621	310	330,518	81,551	8,269	9	89,828	25,278	2,898	2	28,178	21,588	2,112	5	23,705	8,503	961	1	9,465
Mar-26	298,050	32,577	308	330,935	81,766	8,287	9	90,062	25,366	2,902	2	28,270	21,627	2,114	5	23,746	8,491	962	1	9,454
Apr-26	297,902	32,544	308	330,753	81,709	8,247	9	89,964	25,232	2,884	2	28,118	21,571	2,105	5	23,681	8,481	958	1	9,439
May-26	298,353	32,552	308	331,213	81,735	8,252	9	89,996	25,169	2,907	2	28,078	21,438	2,089	5	23,532	8,452	958	2	9,412
Jun-26	298,811	32,597	311	331,719	81,482	8,240	9	89,731	25,026	2,902	2	27,930	21,280	2,084	5	23,369	8,405	959	2	9,366
Jul-26	298,854	32,548	315	331,717	81,217	8,232	9	89,459	25,113	2,896	2	28,010	21,369	2,092	5	23,466	8,253	961	2	9,216
Aug-26	299,234	32,696	311	332,241	81,020	8,237	9	89,266	25,013	2,888	2	27,903	21,222	2,084	5	23,342	8,222	963	3	9,188
Sep-26	300,264	32,819	313	333,396	81,254	8,266	9	89,529	24,955	2,884	2	27,841	21,242	2,095	5	23,342	8,205	966	7	9,178
Oct-26	302,247	32,854	310	335,410	82,017	8,251	9	90,276	25,198	2,888	2	28,088	21,526	2,072	5	23,603	8,361	965	7	9,333
Nov-26	303,327	33,047	312	336,686	82,982	8,351	9	91,342	25,611	2,911	2	28,524	21,849	2,115	5	23,944	8,483	965	5	9,531
Dec-26	304,970	33,181	315	338,466	83,973	8,392	9	92,373	25,819	2,915	2	28,735	22,093	2,115	4	24,212	8,564	965	2	9,531
Jan-27	303,605	33,070	308	336,983	83,916	8,365	9	91,291	25,914	2,938	2	28,853	21,950	2,126	4	24,080	8,580	965	1	9,546
Feb-27	303,749	33,250	313	337,312	83,020	8,374	9	91,403	25,984	2,939	2	28,924	22,002	2,139	5	24,146	8,594	965	1	9,560
Mar-27	304,221	33,206	311	337,737	83,239	8,392	9	91,641	26,075	2,943	2	29,019	22,042	2,141	5	24,187	8,582	966	1	9,549
Apr-27	304,069	33,172	311	337,552	83,181	8,352	9	91,542	25,936	2,925	2	28,863	21,985	2,132	5	24,121	8,572	962	1	9,534
May-27	304,530	33,180	314	338,021	83,208	8,344	9	91,574	25,872	2,948	2	28,822	21,849	2,116	5	23,970	8,543	962	2	9,507
Jun-27	304,998	33,226	314	338,537	82,950	8,344	9	91,304	25,725	2,943	2	28,670	21,687	2,111	5	23,803	8,495	963	2	9,460
Jul-27	305,042	33,176	318	338,535	82,681	8,337	9	91,027	25,814	2,936	2	28,752	21,779	2,118	5	23,902	8,341	965	2	9,308
Aug-27	305,429	33,327	314	339,070	82,480	8,342	9	90,831	25,711	2,929	2	28,642	21,629	2,111	5	23,745	8,310	967	3	9,280
Sep-27	306,481	33,452	316	340,249	82,718	8,371	9	91,099	25,652	2,925	2	28,578	21,649	2,122	5	23,776	8,292	970	7	9,270
Oct-27	308,504	33,488	313	342,305	83,495	8,355	9	91,860	25,902	2,929	2	28,832	21,939	2,098	5	24,042	8,450	969	7	9,427
Nov-27	309,607	33,684	315	343,606	84,477	8,458	9	92,944	26,326	2,952	2	29,280	22,268	2,117	5	24,390	8,574	969	5	9,548
Dec-27	311,284	33,821	318	345,423	85,486	8,498	9	93,993	26,539	2,956	2	29,497	22,516	2,142	4	24,662	8,655	969	2	9,627

Appendix 2.2 - Customer Forecast - Number by Region
 High Growth Case

Date	WA/ID Res		WA/ID Com		WA/ID Firm Ind		WA/ID Total		MFR Res		MFR Firm Ind		MFR Total		ROSB Res		ROSB Firm Ind		ROSB Total		KLA Res		KLA Firm Ind		KLA Total		La Grande LGR Com		La Grande LGR Firm Ind		La Grande LGR Total	
	195,608	217,807	21,927	217,807	219,721	217,807	6,478	50,854	13,207	2,184	15,393	13,207	2,184	15,393	13,846	1,595	15,441	13,846	1,595	15,441	13,846	1,595	15,441	13,846	1,595	15,441	6,417	896	7,313	6,417	896	7,313
Nov-07	195,608	217,807	21,927	217,807	219,721	217,807	6,478	50,854	13,207	2,184	15,393	13,207	2,184	15,393	13,846	1,595	15,441	13,846	1,595	15,441	13,846	1,595	15,441	13,846	1,595	15,441	6,417	896	7,313	6,417	896	7,313
Dec-07	197,373	219,721	22,072	219,721	221,624	219,721	6,528	51,082	13,389	2,196	15,587	13,389	2,196	15,587	14,106	1,624	15,730	14,106	1,624	15,730	14,106	1,624	15,730	14,106	1,624	15,730	6,514	896	7,410	6,514	896	7,410
Jan-08	197,899	220,175	22,002	220,175	222,177	220,175	6,553	51,415	13,452	2,205	15,659	13,452	2,205	15,659	14,240	1,666	15,906	14,240	1,666	15,906	14,240	1,666	15,906	14,240	1,666	15,906	6,590	898	7,488	6,590	898	7,488
Feb-08	198,051	220,523	22,192	220,523	222,715	220,523	6,564	51,520	13,512	2,207	15,721	13,512	2,207	15,721	14,282	1,668	15,950	14,282	1,668	15,950	14,282	1,668	15,950	14,282	1,668	15,950	6,653	899	7,542	6,653	899	7,542
Mar-08	198,548	220,970	22,145	220,970	223,115	220,970	6,586	51,665	13,590	2,211	15,803	13,590	2,211	15,803	14,322	1,672	16,024	14,322	1,672	16,024	14,322	1,672	16,024	14,322	1,672	16,024	6,723	905	7,728	6,723	905	7,728
Apr-08	198,388	220,774	22,109	220,774	223,011	220,774	6,537	51,682	13,472	2,190	15,662	13,472	2,190	15,662	14,233	1,657	15,890	14,233	1,657	15,890	14,233	1,657	15,890	14,233	1,657	15,890	6,653	893	7,546	6,653	893	7,546
May-08	198,873	221,118	22,118	221,118	223,236	221,118	6,543	51,634	13,416	2,211	15,636	13,416	2,211	15,636	14,081	1,638	15,719	14,081	1,638	15,719	14,081	1,638	15,719	14,081	1,638	15,719	6,529	893	7,522	6,529	893	7,522
Jun-08	199,365	221,466	22,167	221,466	223,633	221,466	6,528	51,375	13,290	2,211	15,504	13,290	2,211	15,504	13,912	1,632	15,544	13,912	1,632	15,544	13,912	1,632	15,544	13,912	1,632	15,544	6,472	895	7,567	6,472	895	7,567
Jul-08	199,110	221,114	22,114	221,114	223,224	221,114	6,519	51,104	13,200	2,195	15,498	13,200	2,195	15,498	13,858	1,641	15,504	13,858	1,641	15,504	13,858	1,641	15,504	13,858	1,641	15,504	6,472	898	7,570	6,472	898	7,570
Aug-08	199,518	221,510	22,150	221,510	223,660	221,510	6,528	50,902	13,292	2,195	15,498	13,292	2,195	15,498	13,920	1,641	15,560	13,920	1,641	15,560	13,920	1,641	15,560	13,920	1,641	15,560	6,472	895	7,567	6,472	895	7,567
Sep-08	200,424	222,073	22,406	222,073	224,479	222,073	6,525	50,902	13,204	2,195	15,400	13,204	2,195	15,400	13,702	1,632	15,334	13,702	1,632	15,334	13,702	1,632	15,334	13,702	1,632	15,334	6,281	901	7,682	6,281	901	7,682
Oct-08	200,624	222,479	22,406	222,479	224,885	222,479	6,561	51,142	13,353	2,195	15,545	13,353	2,195	15,545	13,723	1,645	15,375	13,723	1,645	15,375	13,723	1,645	15,375	13,723	1,645	15,375	6,230	905	7,605	6,230	905	7,605
Nov-08	203,752	224,444	22,652	224,444	227,101	224,444	6,541	51,698	13,367	2,195	15,563	13,367	2,195	15,563	14,026	1,617	15,649	14,026	1,617	15,649	14,026	1,617	15,649	14,026	1,617	15,649	6,418	904	7,942	6,418	904	7,942
Dec-08	205,677	227,997	22,797	227,997	230,794	227,997	6,666	52,461	13,913	2,222	15,955	13,913	2,222	15,955	14,326	1,639	16,303	14,326	1,639	16,303	14,326	1,639	16,303	14,326	1,639	16,303	6,566	904	8,294	6,566	904	8,294
Jan-09	206,506	229,521	22,796	229,521	232,317	229,521	6,720	53,250	14,051	2,223	16,142	14,051	2,223	16,142	14,628	1,659	16,405	14,628	1,659	16,405	14,628	1,659	16,405	14,628	1,659	16,405	6,653	905	8,606	6,653	905	8,606
Feb-09	206,506	229,521	22,796	229,521	232,317	229,521	6,720	53,250	14,051	2,223	16,142	14,051	2,223	16,142	14,628	1,659	16,405	14,628	1,659	16,405	14,628	1,659	16,405	14,628	1,659	16,405	6,653	905	8,606	6,653	905	8,606
Mar-09	207,154	230,316	22,843	230,316	233,159	230,316	6,753	53,559	14,111	2,274	16,387	14,111	2,274	16,387	14,709	1,691	16,405	14,709	1,691	16,405	14,709	1,691	16,405	14,709	1,691	16,405	6,723	905	8,901	6,723	905	8,901
Apr-09	206,994	230,164	22,843	230,164	232,999	230,164	6,753	53,559	14,111	2,274	16,387	14,111	2,274	16,387	14,709	1,691	16,405	14,709	1,691	16,405	14,709	1,691	16,405	14,709	1,691	16,405	6,723	905	8,901	6,723	905	8,901
May-09	207,479	231,614	22,852	231,614	233,461	231,614	6,709	53,850	14,071	2,258	16,330	14,071	2,258	16,330	14,804	1,708	16,521	14,804	1,708	16,521	14,804	1,708	16,521	14,804	1,708	16,521	6,724	906	9,102	6,724	906	9,102
Jun-09	207,971	232,061	22,901	232,061	233,962	232,061	6,694	53,877	14,015	2,285	16,302	14,015	2,285	16,302	14,745	1,699	16,450	14,745	1,699	16,450	14,745	1,699	16,450	14,745	1,699	16,450	6,712	900	9,297	6,712	900	9,297
Jul-09	208,017	232,447	22,848	232,447	234,295	232,447	6,685	53,618	13,889	2,279	16,242	13,889	2,279	16,242	14,603	1,699	16,302	14,603	1,699	16,302	14,603	1,699	16,302	14,603	1,699	16,302	6,678	900	9,503	6,678	900	9,503
Aug-09	208,425	232,848	22,848	232,848	234,694	232,848	6,685	53,618	13,889	2,279	16,242	13,889	2,279	16,242	14,603	1,699	16,302	14,603	1,699	16,302	14,603	1,699	16,302	14,603	1,699	16,302	6,678	900	9,503	6,678	900	9,503
Sep-09	209,531	233,157	23,008	233,157	235,165	233,157	6,691	53,347	13,966	2,271	16,239	13,966	2,271	16,239	14,434	1,682	16,145	14,434	1,682	16,145	14,434	1,682	16,145	14,434	1,682	16,145	6,437	905	9,737	6,437	905	9,737
Oct-09	209,531	233,157	23,008	233,157	235,165	233,157	6,691	53,347	13,966	2,271	16,239	13,966	2,271	16,239	14,434	1,682	16,145	14,434	1,682	16,145	14,434	1,682	16,145	14,434	1,682	16,145	6,437	905	9,737	6,437	905	9,737
Nov-09	212,819	235,178	23,140	235,178	238,318	235,178	6,708	53,385	13,826	2,258	16,121	13,826	2,258	16,121	14,200	1,673	15,979	14,200	1,673	15,979	14,200	1,673	15,979	14,200	1,673	15,979	6,379	912	10,100	6,379	912	10,100
Dec-09	214,584	235,531	23,386	235,531	240,917	235,531	6,832	54,016	14,041	2,262	16,305	14,041	2,262	16,305	14,320	1,687	16,288	14,320	1,687	16,288	14,320	1,687	16,288	14,320	1,687	16,288	6,567	911	11,100	6,567	911	11,100
Jan-10	215,336	236,494	23,544	236,494	242,038	236,494	6,822	54,853	14,404	2,289	16,696	14,404	2,289	16,696	14,966	1,681	16,653	14,966	1,681	16,653	14,966	1,681	16,653	14,966	1,681	16,653	6,715	911	12,100	6,715	911	12,100
Feb-10	216,188	237,324	23,544	237,324	242,872	237,324	6,864	55,718	14,582	2,294	16,883	14,582	2,294	16,883	15,306	1,711	16,941	15,306	1,711	16,941	15,306	1,711	16,941	15,306	1,711	16,941	6,812	911	13,100	6,812	911	13,100
Mar-10	215,984	237,169	23,687	237,169	242,855	237,169	6,975	56,006	14,800	2,336	17,199	14,800	2,336	17,199	15,832	1,730	17,041	15,832	1,730	17,041	15,832	1,730	17,041	15,832	1,730	17,041	6,872	911	14,100	6,872	911	14,100
Apr-10	216,825	238,068	23,687	238,068	243,755	238,068	6,987	56,226	14,937	2,342	17,282	14,937	2,342	17,282	15,401	1,748	17,156	15,401	1,748	17,156	15,401	1,748	17,156	15,401	1,748	17,156	6,913	912	15,100	6,913	912	15,100
May-10	216,309	237,768	23,660	237,768	243,429	237,768	6,854	56,168	14,819	2,321	17,142	14,819	2,321	17,142	15,225	1,730	17,086	15,225	1,730	17,086	15,225	1,730	17,086	15,225	1,730	17,086	6,873	912	16,100	6,873	912	16,100
Jun-10	216,801	238,262	23,660	238,262	243,923	238,262	6,854	56,168	14,764	2,348	17,114	14,764	2,348	17,114	15,200	1,718	17,041	15,200	1,718	17,041	15,200	1,718	17,041	15,200	1,718	17,041	6,827	907	17,100	6,827	907	17,100
Jul-10	217,496	239,056	23,656	239,056	244,712	239,056	6,936	56,936	14,682	2,342	16,982	14,682	2,342	16,982	15,031	1,712	16,750	15,031	1,712	16,750	15,031	1,712	16,750	15,031	1,712	16,750	6,770	908	18,100	6,7		

Appendix 2.2 - Customer Forecast - Number by Region
High Growth Case

	WA/ID Res	WA/ID Com	WA/ID Firm Ind	WA/ID Total	MFR Res	MFR Com	Medford Firm Ind	MFR Total	ROS Res	ROS Com	Roseburg Firm Ind	ROS Total	KLA Res	KLA Com	Klamath Falls Firm Ind	KLA Total	LGD Res	LGD Com	La Grande Firm Ind	LGD Total
Nov-13	247,271	26,901	318	274,489	65,585	7,560	9	72,954	18,143	2,517	2	20,661	17,690	1,812	19,508	7,353	935	935	14	8,302
Dec-13	249,126	27,083	321	276,500	66,667	7,411	9	74,086	18,342	2,521	2	20,865	17,964	1,842	19,811	7,453	935	935	5	8,393
Jan-14	248,263	27,131	314	275,707	66,616	7,377	9	73,903	18,728	2,558	2	21,289	17,956	1,856	19,817	7,519	935	935	2	8,456
Feb-14	248,426	27,335	321	276,082	66,631	7,388	9	74,293	18,885	2,565	2	21,451	18,059	1,875	19,941	7,520	937	2	8,459	
Mar-14	248,960	27,285	318	276,562	66,803	7,412	9	74,178	18,885	2,565	2	21,451	18,059	1,875	19,941	7,520	937	2	8,459	
Apr-14	248,788	27,246	318	276,352	66,807	7,360	9	74,214	18,687	2,571	2	21,260	17,954	1,844	19,653	7,508	931	2	8,441	
May-14	249,309	27,256	318	276,882	66,838	7,367	9	74,214	18,687	2,571	2	21,260	17,954	1,844	19,653	7,508	931	2	8,441	
Jun-14	249,838	27,308	323	277,466	66,854	7,351	9	73,914	18,544	2,565	2	21,111	17,688	1,838	19,591	7,472	931	2	8,408	
Jul-14	250,888	27,251	328	278,466	66,257	7,342	9	73,608	18,531	2,557	2	21,190	17,622	1,847	19,615	7,442	932	5	8,350	
Aug-14	250,326	27,423	323	278,072	66,035	7,348	9	73,392	18,531	2,547	2	21,080	17,592	1,838	19,436	7,412	932	8	8,160	
Sep-14	251,515	27,566	326	279,407	66,298	7,385	9	73,692	18,473	2,542	2	21,017	17,514	1,852	19,473	7,359	943	20	8,122	
Oct-14	253,803	27,607	321	281,730	67,155	7,365	9	74,529	18,716	2,547	2	21,265	17,943	1,852	19,772	7,356	942	20	8,317	
Nov-14	255,909	27,831	324	283,205	68,238	7,494	9	75,741	19,130	2,576	2	21,708	18,314	1,845	20,167	7,511	942	14	8,466	
Dec-14	256,946	27,987	328	285,261	69,351	7,545	9	76,906	19,337	2,581	2	22,380	18,596	1,876	20,473	7,613	942	5	8,559	
Jan-15	255,743	28,044	321	284,107	69,176	7,526	9	76,712	19,749	2,629	2	22,549	18,631	1,896	20,551	7,742	942	2	8,684	
Feb-15	255,909	28,254	327	284,491	69,295	7,537	9	76,841	19,912	2,635	2	22,549	18,677	1,915	20,599	7,724	944	2	8,684	
Mar-15	256,455	28,202	324	284,981	69,543	7,561	9	77,113	19,912	2,635	2	22,549	18,677	1,915	20,599	7,724	944	2	8,684	
Apr-15	256,280	28,162	324	284,766	69,477	7,509	9	76,995	19,772	2,612	2	22,387	18,611	1,904	20,552	7,711	938	2	8,651	
May-15	256,812	28,172	324	285,308	69,508	7,515	9	77,032	19,707	2,642	2	22,350	18,454	1,884	20,344	7,674	938	5	8,678	
Jun-15	257,352	28,226	329	285,907	69,215	7,499	9	76,724	19,558	2,635	2	22,195	18,267	1,877	20,151	7,614	939	5	8,558	
Jul-15	257,403	28,167	334	285,905	68,909	7,490	9	76,408	19,648	2,627	2	22,273	18,373	1,887	20,266	7,471	942	5	8,345	
Aug-15	257,851	28,344	329	286,524	68,681	7,496	9	76,187	19,544	2,617	2	22,163	18,199	1,877	20,083	7,378	946	8	8,331	
Sep-15	259,065	28,490	332	287,888	68,952	7,534	9	76,495	19,484	2,612	2	22,098	18,222	1,892	20,120	7,355	950	20	8,325	
Oct-15	261,403	28,532	327	290,263	69,834	7,514	9	77,356	19,737	2,617	2	22,356	18,558	1,862	20,427	7,555	949	20	8,525	
Nov-15	262,677	28,762	331	291,770	70,949	7,644	9	78,602	20,167	2,647	2	22,816	18,939	1,885	20,831	7,714	949	14	8,677	
Dec-15	264,616	28,921	334	293,871	72,094	7,696	9	79,799	20,383	2,651	2	23,037	19,227	1,917	21,149	7,818	949	5	8,771	
Jan-16	263,370	28,958	327	292,655	71,911	7,691	9	79,611	20,803	2,705	2	23,510	19,187	1,943	21,135	7,926	951	2	8,878	
Feb-16	263,541	29,172	334	293,047	72,033	7,702	9	80,024	20,973	2,711	2	23,585	19,248	1,960	21,215	7,943	951	2	8,896	
Mar-16	264,098	29,079	330	293,328	72,220	7,674	9	79,903	20,827	2,688	2	23,179	19,228	1,951	21,264	7,927	952	2	8,861	
Apr-16	264,463	29,189	330	293,882	72,252	7,680	9	79,941	20,759	2,718	2	23,479	19,067	1,930	21,185	7,914	946	5	8,828	
May-16	265,015	29,143	335	294,494	71,951	7,664	9	79,624	20,604	2,711	2	23,198	18,875	1,923	20,805	7,815	947	5	8,748	
Jun-16	265,027	29,084	340	294,491	71,636	7,654	9	79,300	20,698	2,703	2	23,403	18,984	1,933	20,924	7,615	951	5	8,571	
Jul-16	265,525	29,264	335	295,124	71,401	7,661	9	79,071	20,590	2,693	2	23,285	18,805	1,923	20,756	7,575	954	8	8,536	
Aug-16	264,765	29,414	339	296,519	70,699	7,699	9	79,388	20,527	2,688	2	23,488	18,929	1,938	20,724	7,552	958	20	8,530	
Sep-16	269,154	29,457	334	298,945	72,587	7,678	9	80,275	20,790	2,693	2	23,488	19,174	1,908	20,774	7,552	957	20	8,733	
Oct-16	270,456	29,692	337	300,485	73,734	7,811	9	81,555	21,238	2,723	2	24,192	19,564	1,931	21,502	7,917	957	14	8,888	
Nov-16	272,436	29,856	340	302,633	74,913	7,864	9	82,786	21,462	2,728	2	24,952	19,859	1,963	21,873	8,023	957	5	8,985	
Dec-16	271,141	29,870	330	301,341	74,627	7,852	9	82,488	21,950	2,776	2	24,300	19,884	1,986	21,895	8,125	958	2	9,005	
Jan-17	271,316	30,089	337	301,742	74,752	7,863	9	82,624	21,950	2,778	2	24,300	19,884	1,986	21,895	8,125	958	2	9,005	
Feb-17	271,885	30,095	333	302,254	75,014	7,888	9	82,911	22,050	2,783	2	24,835	19,933	2,005	21,945	8,108	960	2	9,070	
Mar-17	272,557	30,004	333	302,029	74,945	7,834	9	82,788	21,895	2,790	2	24,606	19,698	1,973	21,678	8,057	953	5	9,015	
Apr-17	272,821	30,060	339	303,220	74,977	7,841	9	82,501	21,667	2,783	2	24,452	19,502	1,966	21,475	7,994	955	5	8,945	
May-17	272,875	29,999	344	303,277	74,668	7,824	9	82,501	21,667	2,783	2	24,452	19,502	1,966	21,475	7,994	955	5	8,945	
Jun-17	273,342	30,184	339	303,865	74,304	7,815	9	81,168	21,764	2,775	2	24,541	19,431	1,966	21,404	7,950	961	8	8,719	
Jul-17	274,610	30,337	342	305,289	74,389	7,860	9	82,258	21,566	2,765	2	24,348	19,455	1,981	21,443	7,727	966	20	8,919	
Aug-17	277,051	30,381	337	307,768	75,322	7,939	9	83,170	21,860	2,765	2	24,627	19,608	1,960	21,765	7,935	964	20	8,919	
Sep-17	278,381	30,621	340	309,342	76,501	7,974	9	84,484	22,325	2,795	2	25,122	20,207	1,975	22,189	8,098	964	14	9,077	
Oct-17	280,404	30,776	335	310,320	77,113	8,027	9	85,750	22,559	2,800	2	25,361	20,437	2,007	22,552	8,206	964	5	9,175	
Nov-17	279,210	31,000	342	310,730	77,231	8,002	9	85,242	22,911	2,840	2	25,753	20,511	2,024	22,467	8,287	965	2	9,254	
Dec-17	279,388	31,000	342	310,730	77,359	8,038	9	85,382	22,990	2,841	2	25,942	20,501	2,044	22,551	8,306	965	2	9,272	
Jan-18	279,969	30,945	338	311,253	77,629	8,038	9	85,676	23,093	2,847	2	25,942	20,511	2,044	22,551	8,306	965	2	9,272	
Feb-18	279,833	30,902	338	311,023	77,857	7,984	9	85,590	22,937	2,823	2	25,761	20,480	2,033	22,550	8,276	960	2	9,238	
Mar-18	280,350	30,913	338	311,602	77,590	7,990	9	85,590	22,663	2,853	2	25,719	20,311	2,005	22,329	8,237	960	5	9,202	
Apr-18	280,927	30,970	343	312,240	77,273	7,974	9	85,256	22,697	2,847	2	25,458	20,224	2,014	22,122	8,173	961	5	9,140	
May-18	280,981	30,908	349	312,238	76,941	7,964	9	84,914	22,798	2,838	2	25,638	20,224	2,014	22,122	7,967	965	5	8,926	
Jun-18	281,459	31,097	343	312,899	76,694	7,971	9	84,673	22,681	2,828	2	25,511	20,062	2,019	22,049	7,925	965	8	8,901	
Jul-18	282,755	31,254	347	314,355	76,987	8,010	9	85,006	22,613	2,823	2	25,438	20,021	2,019	22,049	7,901	972	20	8,894	
Aug-18	285,249	31,298	342	316,889	77,944	7,989	9	85,942	22,727	2,823	2	25,438	20,021	2,019	22,049	7,901	972	20	8,894	
Sep-18	286,608	31,544	345	318,498	79,155	8,125	9	87,289	23,379	2,859	2	26,240	20,632	2,013	22,418	8,113	971	14	9,064	
Oct-18	288,676	31,715	349	320,740	80,398	8,180	9	88,587	24,141	2,864	2	26,487	20,632	2,013	22,418	8,388	971	14	9,264	
Nov-18	287,429	31,682	341	319,452	79,854	8,149	9	88,012	23,948	2,902										

High Growth Case
Appendix 2.2 - Customer Forecast - Number by Region

Month	WA/ID Res		WA/ID Com		WA/ID Firm Ind		WA/ID Total		MFR Res		MFR Firm Ind		MFR Total		ROS Com		ROS Firm Ind		ROS Total		KLA Res		KLA Firm Ind		KLA Total		LGD Com		LGD Firm Ind		LGD Total			
	Res	Com	Res	Com	Res	Com	Res	Com	Res	Com	Res	Com	Res	Com	Res	Com	Res	Com	Res	Com	Res	Com	Res	Com	Res	Com	Res	Com	Res	Com	Res	Com		
Nov-19	294,990	32,467	327,808	351	8,275	9	90,110	24,433	2,921	27,356	21,438	2,051	23,496	8,547	977	14	9,428	21,438	2,051	23,496	21,438	2,051	23,496	8,547	977	14	9,428	21,438	2,051	23,496	8,547	977	14	9,428
Dec-19	297,103	32,642	330,100	355	8,302	9	91,441	25,002	2,926	27,928	21,754	2,084	23,844	8,548	977	5	9,530	21,754	2,084	23,844	21,754	2,084	23,844	8,548	977	5	9,530	21,754	2,084	23,844	8,548	977	5	9,530
Jan-20	296,094	32,624	329,040	343	8,305	9	90,772	25,002	2,946	28,057	21,650	2,103	23,758	8,626	978	2	9,606	21,650	2,103	23,758	21,650	2,103	23,758	8,626	978	2	9,606	21,650	2,103	23,758	8,626	978	2	9,606
Feb-20	296,280	32,859	329,488	350	8,293	9	91,018	25,002	2,968	28,071	21,717	2,121	23,846	8,628	979	2	9,625	21,717	2,121	23,846	21,717	2,121	23,846	8,628	979	2	9,625	21,717	2,121	23,846	8,628	979	2	9,625
Mar-20	296,888	32,801	329,035	346	8,286	9	91,227	25,030	2,973	28,173	21,695	2,111	23,899	8,628	979	2	9,625	21,695	2,111	23,899	21,695	2,111	23,899	8,628	979	2	9,625	21,695	2,111	23,899	8,628	979	2	9,625
Apr-20	296,693	32,756	329,795	346	8,293	9	91,096	25,030	2,949	27,981	21,695	2,111	23,813	8,614	973	2	9,589	21,695	2,111	23,813	21,695	2,111	23,813	8,614	973	2	9,589	21,695	2,111	23,813	8,614	973	2	9,589
May-20	297,286	32,767	330,399	346	8,286	9	91,338	24,951	2,981	27,934	21,519	2,089	23,615	8,575	973	5	9,552	21,519	2,089	23,615	21,519	2,089	23,615	8,575	973	5	9,552	21,519	2,089	23,615	8,575	973	5	9,552
Jun-20	297,888	32,827	331,067	351	8,250	9	90,787	24,773	2,973	27,748	21,309	2,083	23,398	8,509	974	5	9,488	21,309	2,083	23,398	21,309	2,083	23,398	8,509	974	5	9,488	21,309	2,083	23,398	8,509	974	5	9,488
Jul-20	297,945	32,762	331,064	357	8,266	9	90,428	24,881	2,965	27,848	21,309	2,083	23,398	8,509	974	5	9,488	21,309	2,083	23,398	21,309	2,083	23,398	8,509	974	5	9,488	21,309	2,083	23,398	8,509	974	5	9,488
Aug-20	298,445	32,959	333,175	351	8,193	9	90,175	24,881	2,954	27,848	21,428	2,093	23,527	8,529	978	5	9,529	21,428	2,093	23,527	21,428	2,093	23,527	8,529	978	5	9,529	21,428	2,093	23,527	8,529	978	5	9,529
Sep-20	299,799	33,123	333,277	355	8,208	9	91,524	24,684	2,949	27,943	21,259	2,098	23,363	8,229	985	20	9,451	21,259	2,098	23,363	21,259	2,098	23,363	8,229	985	20	9,451	21,259	2,098	23,363	8,229	985	20	9,451
Oct-20	302,406	33,170	335,925	353	8,426	9	92,921	24,987	2,954	27,943	21,636	2,066	23,708	8,447	984	14	9,616	21,636	2,066	23,708	21,636	2,066	23,708	8,447	984	14	9,616	21,636	2,066	23,708	8,447	984	14	9,616
Nov-20	303,826	33,426	337,606	353	8,480	9	92,921	25,044	2,986	28,492	22,062	2,121	24,181	8,618	984	14	9,616	22,062	2,121	24,181	22,062	2,121	24,181	8,618	984	14	9,616	22,062	2,121	24,181	8,618	984	14	9,616
Dec-20	305,987	33,605	339,949	357	8,487	9	94,283	25,763	2,991	28,492	22,386	2,152	24,405	8,785	983	2	9,789	22,386	2,152	24,405	22,386	2,152	24,405	8,785	983	2	9,789	22,386	2,152	24,405	8,785	983	2	9,789
Jan-21	305,249	33,809	339,972	354	8,452	9	93,587	26,040	3,019	29,059	22,335	2,133	24,458	8,804	983	2	9,789	22,335	2,133	24,458	22,335	2,133	24,458	8,804	983	2	9,789	22,335	2,133	24,458	8,804	983	2	9,789
Feb-21	305,671	33,750	341,121	351	8,418	9	93,903	26,242	3,024	29,148	22,335	2,133	24,458	8,804	983	2	9,789	22,335	2,133	24,458	22,335	2,133	24,458	8,804	983	2	9,789	22,335	2,133	24,458	8,804	983	2	9,789
Mar-21	305,871	33,704	341,345	351	8,428	9	93,812	26,068	2,999	29,069	22,312	2,142	24,460	8,773	979	2	9,743	22,312	2,142	24,460	22,312	2,142	24,460	8,773	979	2	9,743	22,312	2,142	24,460	8,773	979	2	9,743
Apr-21	304,278	33,716	340,345	351	8,428	9	93,812	25,987	3,031	29,020	22,132	2,120	24,258	8,732	979	5	9,716	22,132	2,120	24,258	22,132	2,120	24,258	8,732	979	5	9,716	22,132	2,120	24,258	8,732	979	5	9,716
May-21	306,895	33,776	341,027	356	8,033	9	93,453	25,803	3,024	28,829	21,917	2,113	24,037	8,666	980	5	9,651	21,917	2,113	24,037	21,917	2,113	24,037	8,666	980	5	9,651	21,917	2,113	24,037	8,666	980	5	9,651
Jun-21	307,464	33,911	341,731	356	8,410	9	93,086	25,915	3,015	28,932	22,039	2,123	24,169	8,450	983	5	9,459	22,039	2,123	24,169	22,039	2,123	24,169	8,450	983	5	9,459	22,039	2,123	24,169	8,450	983	5	9,459
Jul-21	308,849	34,079	343,713	360	8,408	9	92,826	25,785	3,004	28,792	21,839	2,113	23,959	8,407	987	8	9,401	21,839	2,113	23,959	21,839	2,113	23,959	8,407	987	8	9,401	21,839	2,113	23,959	8,407	987	8	9,401
Aug-21	311,516	34,126	345,997	354	8,427	9	94,183	25,711	2,999	28,712	21,866	2,128	24,001	8,382	991	20	9,394	21,866	2,128	24,001	21,866	2,128	24,001	8,382	991	20	9,394	21,866	2,128	24,001	8,382	991	20	9,394
Sep-21	312,969	34,389	347,716	358	8,569	9	95,635	26,024	3,004	29,031	22,251	2,096	24,354	8,603	990	20	9,613	22,251	2,096	24,354	22,251	2,096	24,354	8,603	990	20	9,613	22,251	2,096	24,354	8,603	990	20	9,613
Oct-21	315,179	34,572	349,613	361	8,895	9	97,029	26,588	3,032	29,597	22,687	2,121	24,816	8,776	990	14	9,780	22,687	2,121	24,816	22,687	2,121	24,816	8,776	990	14	9,780	22,687	2,121	24,816	8,776	990	14	9,780
Nov-21	314,321	34,513	348,834	358	8,443	9	96,037	26,826	3,042	30,155	23,017	2,152	25,178	8,900	990	5	9,885	23,017	2,152	25,178	23,017	2,152	25,178	8,900	990	5	9,885	23,017	2,152	25,178	8,900	990	5	9,885
Dec-21	315,152	34,757	349,613	358	8,585	9	96,190	27,077	3,076	30,428	22,882	2,170	25,148	8,943	989	2	9,924	22,882	2,170	25,148	22,882	2,170	25,148	8,943	989	2	9,924	22,882	2,170	25,148	8,943	989	2	9,924
Jan-22	314,948	34,697	349,520	354	8,623	9	96,513	27,168	3,082	30,286	22,852	2,189	25,148	8,943	989	2	9,924	22,852	2,189	25,148	22,852	2,189	25,148	8,943	989	2	9,924	22,852	2,189	25,148	8,943	989	2	9,924
Feb-22	315,152	34,757	349,613	358	8,585	9	96,190	27,168	3,076	30,428	22,882	2,170	25,148	8,943	989	2	9,924	22,852	2,189	25,148	22,852	2,189	25,148	8,943	989	2	9,924	22,852	2,189	25,148	8,943	989	2	9,924
Mar-22	314,948	34,660	349,520	354	8,623	9	96,513	27,168	3,082	30,286	22,852	2,189	25,148	8,943	989	2	9,924	22,852	2,189	25,148	22,852	2,189	25,148	8,943	989	2	9,924	22,852	2,189	25,148	8,943	989	2	9,924
Apr-22	315,569	34,662	349,952	354	8,573	9	96,371	27,107	3,058	30,116	22,929	2,179	25,114	8,941	991	2	9,918	22,929	2,179	25,114	22,929	2,179	25,114	8,941	991	2	9,918	22,929	2,179	25,114	8,941	991	2	9,918
May-22	316,199	34,724	351,283	359	8,788	9	96,420	26,833	3,091	30,244	22,926	2,156	24,908	8,890	985	5	9,819	22,926	2,156	24,908	22,926	2,156	24,908	8,890	985	5	9,819	22,926	2,156	24,908	8,890	985	5	9,819
Jun-22	316,259	34,656	351,280	365	8,124	9	96,054	26,948	3,074	30,024	22,926	2,156	24,816	8,640	989	5	9,599	22,926	2,156	24,816	22,926	2,156	24,816	8,640	989	5	9,599	22,926	2,156	24,816	8,640	989	5	9,599
Jul-22	316,782	34,862	352,003	359	8,552	9	95,413	26,815	3,063	30,206	22,446	2,160	24,602	8,504	993	8	9,561	22,446	2,160	24,602	22,446	2,160	24,602	8,504	993	8	9,561	22,446	2,160	24,602	8,504	993	8	9,561
Aug-22	318,199	35,033	353,595	368	8,593	9	95,777	26,778	3,058	29,797	22,473	2,165	24,645	8,535	996	20	9,553	22,473	2,165	24,645	22,473	2,165	24,645	8,535	996	20	9,553	22,473	2,165	24,645	8,535	996	20	9,553
Sep-2																																		

Appendix 2.2 - Customer Forecast - Number by Region
High Growth Case

	WA/ID Res	WA/ID Com	WA/ID Firm Ind	WA/ID Total	MFR Res	MFR Com	Medford Firm Ind	MFR Total	ROS Res	ROS Com	Roseburg Firm Ind	ROS Total	KLA Res	KLA Com	Klamath Falls Firm Ind	KLA Total	LGD Res	LGD Com	La Grande Firm Ind	LGD Total
Nov-25	351,668	38,231	372	390,272	96,761	9,176	9	105,945	30,757	3,284	2	34,043	25,111	2,278	7	27,395	9,341	1,015	14	10,370
Dec-25	354,089	38,430	376	392,894	98,214	9,235	9	107,458	31,059	3,290	2	34,351	25,468	2,314	5	27,786	9,460	1,015	5	10,486
Jan-26	352,421	38,285	364	391,071	96,837	9,194	9	106,040	31,244	3,326	2	34,572	25,271	2,330	5	27,606	9,463	1,015	2	10,480
Feb-26	352,634	38,550	372	391,556	96,990	9,207	9	106,205	31,345	3,328	2	34,676	25,346	2,350	7	27,703	9,483	1,015	2	10,501
Mar-26	353,330	38,485	368	392,183	97,311	9,234	9	106,554	31,478	3,334	2	34,814	25,405	2,352	7	27,764	9,465	1,017	2	10,484
Apr-26	353,106	38,434	368	391,909	97,226	9,174	9	106,409	31,277	3,307	2	34,586	25,321	2,339	7	27,667	9,450	1,010	2	10,463
May-26	353,785	38,447	368	392,600	97,265	9,181	9	106,455	31,182	3,342	2	34,526	25,122	2,316	7	27,445	9,408	1,010	5	10,435
Jun-26	354,474	38,515	374	393,363	96,887	9,163	9	106,059	30,969	3,334	2	34,305	24,886	2,308	7	27,201	9,337	1,012	5	10,354
Jul-26	354,540	38,441	379	393,360	96,492	9,152	9	105,652	31,098	3,325	2	34,428	25,020	2,319	7	27,346	9,110	1,015	5	10,330
Aug-26	355,111	38,664	374	394,149	96,196	9,159	9	105,365	30,948	3,313	2	34,263	24,800	2,308	7	27,115	9,064	1,019	8	10,090
Sep-26	356,660	38,849	377	395,887	96,546	9,203	9	105,758	30,862	3,307	2	34,171	24,829	2,325	7	27,161	9,038	1,023	20	10,081
Oct-26	359,643	38,902	372	398,916	97,687	9,179	9	106,875	31,226	3,313	2	34,541	25,254	2,290	7	27,551	9,271	1,022	20	10,313
Nov-26	361,268	39,192	376	400,836	99,130	9,330	9	108,469	31,844	3,348	2	35,194	25,335	2,317	7	28,000	9,454	1,022	14	10,490
Dec-26	363,740	39,395	379	403,514	100,612	9,391	9	110,011	32,155	3,354	2	35,510	26,099	2,354	5	28,458	9,574	1,022	5	10,601
Jan-27	361,685	39,228	369	401,283	99,032	9,351	9	108,392	32,297	3,388	2	35,688	26,087	2,370	5	28,262	9,599	1,022	2	10,622
Feb-27	361,903	39,499	377	401,778	99,188	9,364	9	108,561	32,402	3,390	2	35,795	26,063	2,391	7	28,361	9,619	1,022	2	10,643
Mar-27	362,612	39,432	373	402,418	99,428	9,392	9	108,916	32,538	3,396	2	35,936	26,023	2,392	7	28,422	9,601	1,023	2	10,626
Apr-27	362,384	39,381	373	402,138	99,428	9,331	9	108,768	32,332	3,369	2	35,702	25,988	2,380	7	28,324	9,586	1,017	2	10,605
May-27	363,077	39,394	373	402,844	99,468	9,338	9	108,815	32,235	3,404	2	35,641	25,735	2,355	7	28,098	9,543	1,017	5	10,545
Jun-27	363,781	39,462	378	403,622	99,083	9,320	9	108,412	32,015	3,404	2	35,413	25,694	2,348	7	27,849	9,472	1,019	5	10,495
Jul-27	363,847	39,387	384	403,619	98,680	9,309	9	107,998	32,148	3,386	2	35,537	25,631	2,359	7	27,997	9,242	1,022	5	10,268
Aug-27	364,430	39,615	378	404,424	98,380	9,316	9	107,705	31,994	3,375	2	35,371	25,607	2,348	7	27,762	9,195	1,025	8	10,228
Sep-27	366,012	39,804	382	406,197	98,736	9,360	9	108,105	31,905	3,369	2	35,276	25,437	2,365	7	27,808	9,169	1,030	20	10,219
Oct-27	369,056	39,857	377	409,290	99,897	9,336	9	109,243	32,279	3,375	2	35,656	26,870	2,330	7	28,206	9,404	1,028	20	10,453
Nov-27	370,715	40,153	380	411,248	101,366	9,400	9	110,845	32,915	3,410	2	36,327	26,360	2,357	4	28,724	9,589	1,028	14	10,632
Dec-27	373,238	40,360	384	413,982	102,875	9,451	9	112,434	33,234	3,416	2	36,652	26,331	2,394	5	29,130	9,711	1,028	5	10,744

Appendix 2.2 - Customer Forecast - Number by Region
Low Growth Case

			WA/ID Res			WA/ID Firm			WA/ID Total			MFR Res			MFR Firm Ind			MFR Total			ROS Res			ROS Firm Ind			ROS Total			KLA Res			KLA Firm Ind			KLA Total			LGD Res			LGD Firm Ind			LGD Total		
Nov-07	191,905	21,468	253	213,625	50,069	6,403	9	56,481	13,071	2,163	2	15,236	13,775	1,602	6	15,382	882	6	7,310																												
Dec-07	192,493	21,516	254	214,263	50,307	6,420	9	56,736	13,132	2,167	2	15,300	13,861	1,611	6	15,478	882	3	7,339																												
Jan-08	192,668	21,493	253	214,414	50,418	6,428	9	56,856	13,153	2,170	2	15,324	13,888	1,620	5	15,513	6,454	882	3	7,358																											
Feb-08	192,719	21,556	255	214,530	50,463	6,432	9	56,894	13,157	2,175	2	15,345	13,906	1,625	6	15,537	6,474	883	2	7,364																											
Mar-08	192,885	21,540	254	214,679	50,502	6,439	9	56,950	13,199	2,172	2	15,372	13,920	1,626	6	15,552	6,474	883	2	7,359																											
Apr-08	192,831	21,528	254	214,614	50,507	6,423	9	56,939	13,159	2,165	2	15,326	13,900	1,622	6	15,528	6,474	881	2	7,353																											
May-08	192,993	21,531	254	214,778	50,491	6,425	9	56,925	13,141	2,174	2	15,317	13,853	1,616	6	15,474	6,459	881	3	7,343																											
Jun-08	193,157	21,548	256	214,960	50,405	6,420	9	56,834	13,099	2,172	2	15,273	13,797	1,614	6	15,416	6,440	882	3	7,324																											
Jul-08	193,072	21,530	257	214,859	50,315	6,417	9	56,741	13,099	2,169	2	15,271	13,779	1,617	6	15,416	6,440	882	3	7,324																											
Aug-08	193,208	21,583	256	215,047	50,247	6,419	9	56,675	13,070	2,166	2	15,238	13,727	1,614	6	15,346	6,366	884	4	7,254																											
Sep-08	193,577	21,627	257	215,461	50,327	6,431	9	56,767	13,053	2,165	2	15,229	13,734	1,618	6	15,358	6,359	885	8	7,252																											
Oct-08	194,286	21,640	255	216,181	50,513	6,424	9	56,946	13,124	2,166	2	15,292	13,854	1,609	6	15,449	6,422	885	8	7,315																											
Nov-08	194,673	21,709	257	216,638	50,767	6,456	9	57,242	13,246	2,175	2	15,423	13,949	1,616	6	15,571	6,471	885	6	7,362																											
Dec-08	195,261	21,758	257	217,276	51,030	6,482	9	57,521	13,306	2,177	2	15,485	14,035	1,626	5	15,667	6,504	885	3	7,391																											
Jan-09	195,537	21,737	255	217,530	51,066	6,484	9	57,559	13,352	2,192	2	15,547	14,062	1,634	5	15,701	6,524	885	2	7,416																											
Feb-09	195,588	21,801	257	217,646	51,126	6,487	9	57,623	13,372	2,193	2	15,567	14,080	1,639	6	15,725	6,529	885	2	7,410																											
Mar-09	195,753	21,785	256	217,795	51,200	6,495	9	57,703	13,398	2,194	2	15,595	14,094	1,640	6	15,740	6,524	885	2	7,411																											
Apr-09	195,700	21,773	256	217,729	51,239	6,478	9	57,728	13,359	2,187	2	15,548	14,074	1,636	6	15,716	6,520	883	2	7,405																											
May-09	195,862	21,776	256	217,894	51,239	6,475	9	57,728	13,340	2,194	2	15,539	14,027	1,630	6	15,662	6,509	883	3	7,395																											
Jun-09	196,026	21,792	258	218,076	51,153	6,475	9	57,637	13,298	2,196	2	15,495	13,971	1,628	6	15,604	6,490	884	3	7,377																											
Jul-09	196,041	21,775	259	218,075	51,062	6,472	9	57,544	13,298	2,194	2	15,495	13,971	1,628	6	15,604	6,490	884	3	7,377																											
Aug-09	196,177	21,828	258	218,263	50,995	6,474	9	57,479	13,294	2,192	2	15,518	13,978	1,631	6	15,614	6,428	885	3	7,316																											
Sep-09	196,546	21,875	259	218,677	51,075	6,486	9	57,570	13,277	2,189	2	15,485	13,926	1,628	6	15,559	6,416	886	4	7,306																											
Oct-09	197,255	21,885	258	219,397	51,285	6,490	9	57,774	13,349	2,189	2	15,467	13,933	1,632	6	15,570	6,409	887	8	7,306																											
Nov-09	197,255	21,875	258	219,397	51,285	6,486	9	57,744	13,327	2,187	2	15,440	14,033	1,623	6	15,662	6,472	887	8	7,367																											
Dec-09	198,230	22,002	259	220,492	51,863	6,538	9	58,095	13,470	2,198	2	15,540	14,148	1,630	6	15,662	6,472	887	8	7,367																											
Jan-10	198,481	22,007	258	220,746	51,889	6,532	9	58,430	13,531	2,199	2	15,732	14,234	1,640	5	15,880	6,553	887	3	7,443																											
Feb-10	198,531	22,070	261	220,662	51,949	6,536	9	58,493	13,602	2,213	2	15,817	14,271	1,647	5	15,913	6,573	887	2	7,462																											
Mar-10	198,644	22,042	259	221,011	52,022	6,543	9	58,574	13,648	2,214	2	15,838	14,279	1,652	6	15,937	6,579	887	2	7,468																											
Apr-10	198,644	22,042	259	220,948	52,003	6,527	9	58,538	13,608	2,208	2	15,819	14,273	1,649	6	15,928	6,574	888	2	7,463																											
May-10	198,805	22,045	259	221,110	52,012	6,529	9	58,549	13,590	2,217	2	15,809	14,226	1,643	6	15,874	6,558	886	3	7,447																											
Jun-10	198,969	22,061	261	221,292	51,925	6,524	9	58,458	13,544	2,215	2	15,765	14,170	1,641	6	15,816	6,478	887	3	7,429																											
Jul-10	199,035	22,044	263	221,341	51,885	6,521	9	58,365	13,573	2,213	2	15,788	14,202	1,644	6	15,851	6,478	887	3	7,429																											
Aug-10	199,171	22,097	261	221,529	51,768	6,523	9	58,299	13,544	2,210	2	15,758	14,149	1,641	6	15,796	6,466	888	4	7,358																											
Sep-10	199,539	22,141	262	221,943	51,848	6,535	9	58,391	13,527	2,208	2	15,737	14,156	1,645	6	15,807	6,459	890	8	7,356																											
Oct-10	200,249	22,154	261	222,663	52,083	6,528	9	58,620	13,598	2,210	2	15,810	14,257	1,643	6	15,899	6,522	889	8	7,419																											
Nov-10	200,635	22,223	262	223,120	52,387	6,570	9	58,965	13,720	2,219	2	15,941	14,372	1,643	6	16,020	6,571	889	6	7,466																											
Dec-10	201,223	22,272	263	223,758	52,700	6,586	9	59,295	13,781	2,220	2	16,003	14,458	1,653	5	16,116	6,603	889	3	7,495																											
Jan-11	201,475	22,289	262	224,025	52,736	6,575	9	59,321	13,901	2,231	2	16,134	14,510	1,657	5	16,172	6,623	889	2	7,514																											
Feb-11	201,525	22,352	264	224,141	52,771	6,579	9	59,359	13,921	2,231	2	16,152	14,528	1,662	6	16,196	6,629	889	2	7,520																											
Mar-11	201,691	22,336	263	224,290	52,844	6,586	9	59,440	13,947	2,233	2	16,182	14,542	1,663	6	16,210	6,624	890	2	7,515																											
Apr-11	201,638	22,324	263	224,224	52,825	6,570	9	59,400	13,908	2,226	2	16,135	14,522	1,659	6	16,187	6,620	888	2	7,509																											
May-11	201,799	22,327	263	224,389	52,834	6,572	9	59,415	13,889	2,235	2	16,126	14,475	1,653	6	16,133	6,608	888	3	7,499																											
Jun-11	201,963	22,343	264	224,571	52,748	6,567	9	59,323	13,847	2,233	2	16,082	14,418	1,651	6	16,075	6,589	888	3	7,490																											
Jul-11	202,042	22,336	266	224,570	52,658	6,564	9	59,230	13,873	2,230	2	16,105	14,450	1,654	6	16,110	6,528	889	3	7,420																											
Aug-11	202,114	22,379	264	224,758	52,590	6,566	9	59,165	13,843	2,227	2	16,073	14,398	1,651	6	16,054	6,516	890	4	7,410																											
Sep-11	202,483	22,423	265	225,172	52,670	6,578	9	59,257	13,826	2,226	2	16,054	14,405	1,655	6	16,066	6,509	892	8	7,408																											
Oct-11	203,193	22,436	264	225,892	52,930	6,571	9	59,510	13,898	2,227	2	16,127	14,506	1,646	6	16,157	6,571	891	8	7,471																											
Nov-11	203,579	22,505	266	226,349	53,259	6,613	9	59,881	14,019	2,236	2	16,257	14,620	1,653	6	16,279	6,621	891	6	7,518																											
Dec-11	204,167	22,553	266	226,987	53,597	6,629	9	60,235	14,080	2,238	2	16,320	14,707	1,663	5	16,375	6,653	891	3	7,544																											
Jan-12	204,271	22,593	263	227,127	53,691	6,618	9	60,318	14,253	2,249	2	16,504	14,734	1,667	5	16,406	6,676	891	2	7,569																											
Feb-12	204,323	22,658	265	227,246	53,727	6,622	9	60,358	14,274	2,250	2	16,526	14,752	1,673	6	16,431	6,681	891	2	7,575																											
Mar-12	204,493	22,642	264	227,399	53,803	6,629	9	60,441	14,301	2,252	2	16,554	14,767	1,673	6	16,446	6,676	892	2	7,570																											
Apr-12	204,438	22,630	264	227,332	53,783	6,613	9	60,405	14,259	2,244	2	16,506	14,746	1,670	6	16,422	6,672	890	2	7,564																											
May-12	204,604	22,633	264	227,501	53,792	6,615	9	60,416	14,240	2,254	2	16,498	14,698	1,663	6	16,367	6,661	890	3	7,553																											
Jun-12	204,772	22,649	266	227,687	53,703	6,610	9	60,322	14,196	2,252	2	16,450	14,640	1,661	6	16,307	6,641	890	3	7,535																											
Jul-12	204,788	22,631	267	227,687	53,610	6,607	9	60,225	14,223	2,249	2	16,474	14,673	1,664	6	16,342	6,579	891	3	7,473																											
Aug-12	204,928	22,686	266	227,879	53,540	6,609	9	60,158	14,192	2,246	2	16,440	14,619	1,661	6	16,286	6,567	892	4	7,463																											
Sep-12	205,306	22,731	267	228,304	53,623	6,621	9	60,252	14,174	2,244	2	16,421	14,626	1,666	6	16,292	6,560	894	8	7,461																											
Oct-1																																															

Appendix 2.2 - Customer Forecast - Number by Region
Low Growth Case

	WA/ID Res	WA/ID Com	WA/ID Firm	WA/ID Total	MFR Res	MFR Com	MFR Firm Ind	MFR Total	ROS Res	ROS Com	ROS Firm Ind	ROS Total	KLA Res	KLA Com	KLA Firm Ind	KLA Total	LGD Res	LGD Com	LGD Firm Ind	LGD Total
Nov-13	209,126	23,126	268	232,519	55,142	6,697	9	61,848	14,716	2,274	2	16,992	15,056	1,674	6	16,735	6,734	895	6	7,635
Dec-13	209,744	23,176	269	233,189	55,502	6,714	9	62,225	14,783	2,275	2	17,040	15,147	1,684	6	16,836	6,767	895	3	7,665
Jan-14	209,456	23,202	267	232,925	55,452	6,703	9	62,166	14,911	2,287	2	17,201	15,145	1,689	5	16,838	6,789	895	2	7,686
Feb-14	209,511	23,270	269	233,050	55,400	6,707	9	62,206	14,911	2,288	2	17,224	15,164	1,694	6	16,884	6,795	895	2	7,692
Mar-14	209,689	23,254	268	233,210	55,571	6,715	9	62,294	14,911	2,290	2	17,255	15,179	1,699	6	16,880	6,789	895	2	7,687
Apr-14	209,631	23,241	268	233,140	55,550	6,697	9	62,256	14,911	2,282	2	17,203	15,157	1,691	6	16,854	6,785	894	2	7,681
May-14	209,805	23,244	268	233,317	55,559	6,700	9	62,268	14,898	2,292	2	17,191	15,106	1,685	6	16,796	6,773	894	3	7,670
Jun-14	209,981	23,261	270	233,512	55,465	6,694	9	62,168	14,850	2,290	2	17,142	15,045	1,683	6	16,734	6,753	894	3	7,651
Jul-14	209,998	23,242	271	233,511	55,366	6,691	9	62,066	14,879	2,287	2	17,168	15,080	1,686	6	16,780	6,689	895	3	7,587
Aug-14	210,144	23,300	270	233,713	55,292	6,693	9	61,994	14,846	2,284	2	17,131	15,023	1,683	6	16,711	6,676	896	4	7,574
Sep-14	210,540	23,347	271	234,158	55,379	6,706	9	62,094	14,826	2,284	2	17,110	15,031	1,687	6	16,724	6,669	898	8	7,575
Oct-14	211,303	23,361	269	234,933	55,665	6,699	9	62,373	14,907	2,282	2	17,193	15,140	1,677	6	16,823	6,735	897	8	7,640
Nov-14	212,179	23,436	270	235,424	56,026	6,742	9	62,770	15,045	2,293	2	17,341	15,264	1,685	6	16,955	6,786	897	6	7,689
Dec-14	212,351	23,488	271	236,110	56,397	6,759	9	63,165	15,114	2,295	2	17,411	15,358	1,695	5	17,058	6,820	897	3	7,720
Jan-15	212,905	23,577	269	235,725	56,339	6,753	9	63,101	15,252	2,311	2	17,565	15,350	1,702	5	17,057	6,857	897	2	7,756
Feb-15	212,005	23,559	270	236,016	56,378	6,756	9	63,144	15,306	2,313	2	17,589	15,370	1,708	6	17,099	6,863	897	2	7,762
Mar-15	212,187	23,548	270	236,016	56,461	6,747	9	63,234	15,259	2,305	2	17,621	15,385	1,708	6	17,099	6,853	896	2	7,751
Apr-15	212,129	23,546	270	236,325	56,449	6,749	9	63,195	15,259	2,305	2	17,567	15,363	1,705	6	17,041	6,841	896	3	7,740
May-15	212,306	23,549	270	236,325	56,449	6,749	9	63,207	15,288	2,315	2	17,555	15,311	1,698	6	17,014	6,831	896	3	7,730
Jun-15	212,486	23,567	272	236,325	56,352	6,744	9	63,105	15,188	2,313	2	17,503	15,248	1,696	6	16,950	6,821	896	3	7,720
Jul-15	212,503	23,548	273	236,324	56,274	6,741	9	62,999	15,218	2,310	2	17,503	15,248	1,696	6	16,988	6,755	897	3	7,656
Aug-15	212,652	23,607	272	236,531	56,174	6,743	9	62,926	15,183	2,307	2	17,492	15,226	1,696	6	16,927	6,742	899	4	7,644
Sep-15	213,057	23,655	273	236,985	56,264	6,755	9	63,028	15,163	2,305	2	17,471	15,233	1,701	6	16,939	6,734	900	8	7,642
Oct-15	213,836	23,669	271	237,777	56,558	6,749	9	63,315	15,248	2,307	2	17,557	15,345	1,691	6	17,042	6,801	900	8	7,709
Nov-15	214,907	23,746	272	238,729	56,930	6,792	9	64,130	15,391	2,317	2	17,710	15,472	1,698	6	17,176	6,854	900	6	7,760
Dec-15	214,907	23,811	273	238,980	57,280	6,809	9	64,300	15,463	2,318	2	17,784	15,568	1,709	5	17,282	6,889	900	3	7,791
Jan-16	214,549	23,881	273	238,705	57,280	6,811	9	64,111	15,628	2,336	2	17,966	15,575	1,718	5	17,304	6,930	900	2	7,823
Feb-16	214,735	23,865	272	238,872	57,376	6,819	9	64,205	15,660	2,338	2	18,000	15,591	1,724	6	17,321	6,925	900	2	7,828
Mar-16	214,675	23,855	272	238,799	57,363	6,802	9	64,164	15,611	2,331	2	17,944	15,569	1,720	6	17,294	6,921	899	2	7,821
Apr-16	214,856	23,855	274	239,187	57,364	6,804	9	64,177	15,588	2,341	2	17,931	15,515	1,713	6	17,234	6,908	899	3	7,810
May-16	215,040	23,873	274	239,187	57,264	6,799	9	64,071	15,537	2,338	2	17,877	15,451	1,711	6	17,168	6,888	899	3	7,790
Jun-16	215,058	23,853	275	239,397	57,189	6,795	9	63,963	15,568	2,336	2	17,906	15,482	1,714	6	17,207	6,821	900	3	7,724
Jul-16	215,210	23,913	274	239,397	57,080	6,798	9	63,887	15,532	2,332	2	17,866	15,428	1,711	6	17,145	6,808	900	4	7,713
Sep-16	215,624	23,963	275	239,862	57,173	6,810	9	63,993	15,511	2,331	2	17,844	15,436	1,716	6	17,157	6,800	903	8	7,711
Oct-16	216,420	23,978	273	240,671	57,476	6,803	9	64,288	15,599	2,332	2	17,933	15,551	1,706	6	17,262	6,868	902	8	7,718
Nov-16	216,854	24,056	274	241,184	57,858	6,848	9	64,715	15,748	2,342	2	18,092	15,681	1,724	6	17,400	6,922	902	6	7,830
Dec-16	217,514	24,111	275	241,900	58,665	6,865	9	65,125	15,823	2,344	2	18,169	15,779	1,724	5	17,508	6,957	902	3	7,862
Jan-17	217,082	24,115	272	241,470	58,156	6,861	9	65,026	15,960	2,360	2	18,322	15,767	1,732	5	17,504	6,985	903	2	7,890
Feb-17	217,141	24,188	274	241,603	58,197	6,865	9	65,071	16,019	2,361	2	18,348	15,787	1,738	6	17,531	6,991	903	2	7,896
Mar-17	217,330	24,170	273	241,774	58,285	6,873	9	65,166	16,079	2,362	2	18,383	15,804	1,738	6	17,548	6,985	903	2	7,891
Apr-17	217,269	24,157	273	241,699	58,262	6,855	9	65,126	15,945	2,355	2	18,325	15,780	1,735	6	17,521	6,981	901	2	7,884
May-17	217,454	24,179	275	242,096	58,272	6,858	9	65,139	15,891	2,362	2	18,311	15,725	1,728	6	17,459	6,968	901	3	7,872
Jun-17	217,660	24,158	277	242,096	58,169	6,852	9	65,030	15,823	2,362	2	18,255	15,660	1,725	6	17,391	6,947	902	3	7,852
Jul-17	217,816	24,220	275	242,311	58,061	6,849	9	64,919	15,923	2,360	2	18,285	15,697	1,729	6	17,431	6,880	903	3	7,785
Aug-17	218,239	24,271	276	242,786	57,981	6,851	9	64,841	15,866	2,356	2	18,244	15,636	1,725	6	17,367	6,866	904	4	7,774
Sep-17	218,496	24,286	276	242,786	58,076	6,854	9	64,949	15,864	2,355	2	18,221	15,644	1,730	6	17,380	6,858	905	8	7,772
Oct-17	219,052	24,286	275	244,137	58,387	6,857	9	65,253	15,955	2,356	2	18,314	15,742	1,728	6	17,488	6,928	905	8	7,840
Nov-17	219,496	24,422	277	244,868	59,184	6,902	9	66,113	16,110	2,366	2	18,479	15,895	1,739	5	17,740	6,982	905	3	7,926
Dec-17	220,170	24,422	277	244,868	59,184	6,902	9	66,113	16,188	2,368	2	18,558	15,972	1,745	5	17,740	7,018	905	3	7,952
Jan-18	219,772	24,417	274	244,663	59,024	6,911	9	65,944	16,306	2,381	2	18,689	15,972	1,751	5	17,722	7,045	905	2	7,952
Feb-18	219,831	24,492	276	244,599	59,066	6,915	9	66,009	16,332	2,382	2	18,689	15,993	1,751	5	17,750	7,051	905	2	7,958
Mar-18	220,025	24,474	275	244,774	59,156	6,923	9	66,089	16,366	2,384	2	18,752	16,010	1,751	6	17,767	7,046	905	2	7,953
Apr-18	219,963	24,459	275	244,697	59,132	6,905	9	66,047	16,314	2,376	2	18,692	15,986	1,748	6	17,739	7,041	903	2	7,947
May-18	220,152	24,463	275	244,890	59,143	6,907	9	66,060	16,290	2,386	2	18,678	15,963	1,740	6	17,676	7,028	903	3	7,935
Jun-18	220,344	24,482	276	245,103	59,038	6,902	9	66,040	16,234	2,384	2	18,620	15,863	1,738	6	17,607	7,007	904	3	7,914
Jul-18	220,362	24,461	278	245,102	58,927	6,899	9	65,835	16,229	2,381	2	18,651	15,901	1,741	6	17,648	6,938	905	3	7,846
Aug-18	220,522	24,524	276	245,522	58,845	6,901	9	65,754	16,268	2,377	2	18,608	15,838	1,738	6	17,582	6,924	906	4	7,834
Sep-18	220,954	24,577	278	245,808	58,942	6,914	9	65,858	16,314	2,376	2	18,608	15,847	1,743	6	17,596	6,916	907	8	7,832
Oct-18	221,785	24,591	276	246,652	59,261	6,907	9	66,177	16,301	2,377	2	18,680	15,847	1,733	6	17,705	6,987	907	8	7,902

Appendix 2.2 - Customer Forecast - Number by Region
Low Growth Case

	WA/ID Res	WA/ID Com	WA/ID Firm	WA/ID Total	MFR Res	MFR Com	Medford Firm Ind	MFR Total	ROS Res	ROS Com	Roseburg Firm Ind	ROS Total	KLA Res	KLA Com	Klamath Falls Firm Ind	KLA Total	KLA Total	LGD Res	LGD Com	La Grande Firm Ind	LGD Total	LGD Total
Nov-19	225,032	24,981	279	250,292	60,556	7,002	9	67,567	16,813	2,408	2	19,223	16,305	1,754	5	18,065	7,095	909	6	8,010	3	8,010
Dec-19	225,736	25,039	280	251,054	60,981	7,021	9	68,010	16,897	2,410	2	19,309	16,411	1,765	5	18,181	7,132	909	3	8,044	3	8,044
Jan-20	225,400	25,033	276	250,709	60,766	7,012	9	67,787	17,003	2,423	2	19,428	16,376	1,771	5	18,152	7,158	909	2	8,069	3	8,069
Feb-20	225,462	25,112	279	250,852	60,811	7,016	9	67,836	17,031	2,424	2	19,456	16,398	1,777	5	18,181	7,164	909	2	8,076	3	8,076
Mar-20	225,665	25,092	277	251,034	60,905	7,025	9	67,939	17,068	2,426	2	19,494	16,416	1,778	6	18,199	7,159	910	2	8,070	2	8,070
Apr-20	225,600	25,077	277	250,954	60,880	7,006	9	67,895	17,012	2,418	2	19,432	16,391	1,774	6	18,170	7,154	908	2	8,064	2	8,064
May-20	225,797	25,101	277	251,156	60,892	7,008	9	67,909	16,986	2,428	2	19,416	16,332	1,766	6	18,104	7,144	908	3	8,051	3	8,051
Jun-20	225,998	25,107	279	251,378	60,781	7,003	9	67,792	16,926	2,426	2	19,354	16,332	1,764	6	18,032	7,119	908	3	8,030	3	8,030
Jul-20	226,017	25,079	281	251,377	60,664	6,999	9	67,673	16,962	2,423	2	19,387	16,302	1,768	6	18,007	7,048	909	3	7,960	4	7,960
Aug-20	226,184	25,145	279	251,608	60,578	7,002	9	67,588	16,921	2,419	2	19,342	16,237	1,764	6	18,007	7,034	910	4	7,948	4	7,948
Sep-20	226,635	25,200	280	252,115	60,681	7,015	9	68,003	16,997	2,419	2	19,316	16,246	1,769	6	18,020	7,026	912	8	7,946	8	7,946
Oct-20	227,504	25,215	279	252,989	61,016	7,008	9	68,033	16,998	2,419	2	19,419	16,241	1,759	6	18,135	7,098	911	8	8,018	8	8,018
Nov-20	228,698	25,360	280	253,558	61,440	7,053	9	68,958	17,170	2,430	2	19,602	16,514	1,765	6	18,266	7,155	911	6	8,073	6	8,073
Dec-20	228,388	25,348	278	254,014	61,876	7,073	9	68,958	17,256	2,432	2	19,690	16,521	1,778	5	18,405	7,193	911	2	8,107	2	8,107
Jan-21	228,452	25,428	280	254,160	61,669	7,057	9	68,676	17,349	2,440	2	19,791	16,581	1,781	5	18,368	7,211	911	2	8,124	2	8,124
Feb-21	228,559	25,409	279	254,347	61,655	7,061	9	68,726	17,349	2,441	2	19,821	16,604	1,787	6	18,397	7,217	912	2	8,130	2	8,130
Mar-21	228,659	25,393	279	254,347	61,752	7,070	9	68,831	17,416	2,443	2	19,861	16,622	1,788	6	18,415	7,212	912	2	8,125	2	8,125
Apr-21	228,592	25,409	279	254,265	61,726	7,051	9	68,831	17,358	2,434	2	19,794	16,597	1,784	6	18,386	7,207	912	2	8,118	2	8,118
May-21	229,000	25,397	279	254,471	61,738	7,053	9	68,801	17,371	2,445	2	19,778	16,537	1,777	6	18,319	7,193	910	3	8,106	3	8,106
Jun-21	229,000	25,417	281	254,698	61,624	7,048	9	68,681	17,270	2,443	2	19,714	16,465	1,774	6	18,245	7,171	910	3	8,084	3	8,084
Jul-21	229,020	25,395	282	254,697	61,505	7,044	9	68,559	17,307	2,440	2	19,749	16,506	1,778	6	18,289	7,099	911	3	8,061	3	8,061
Aug-21	229,190	25,462	281	254,933	61,417	7,047	9	68,472	17,264	2,436	2	19,702	16,459	1,774	6	18,219	7,085	912	4	8,001	4	8,001
Sep-21	229,652	25,518	282	255,452	61,522	7,060	9	68,591	17,339	2,434	2	19,675	16,448	1,779	6	18,233	7,077	914	8	7,999	8	7,999
Oct-21	230,541	25,534	280	256,355	61,865	7,053	9	68,927	17,343	2,436	2	19,782	16,576	1,769	6	18,351	7,150	915	8	8,072	8	8,072
Nov-21	231,025	25,683	281	256,928	62,299	7,100	9	69,408	17,521	2,447	2	19,970	16,722	1,777	6	18,505	7,208	913	6	8,127	6	8,127
Dec-21	231,762	25,663	282	257,127	62,745	7,119	9	69,873	17,611	2,449	2	20,061	16,832	1,788	5	18,625	7,246	913	3	8,179	3	8,179
Jan-22	231,541	25,744	281	257,566	62,428	7,106	9	69,542	17,725	2,460	2	20,156	16,787	1,800	6	18,615	7,270	913	2	8,185	2	8,185
Feb-22	231,541	25,744	281	257,566	62,428	7,110	9	69,593	17,725	2,461	2	20,187	16,810	1,800	6	18,625	7,264	913	2	8,185	2	8,185
Mar-22	231,753	25,724	280	257,757	62,974	7,118	9	69,700	17,694	2,462	2	20,228	16,828	1,800	6	18,634	7,264	914	2	8,180	2	8,180
Apr-22	231,685	25,709	280	257,673	62,547	7,099	9	69,656	17,704	2,462	2	20,160	16,802	1,796	6	18,604	7,264	912	2	8,173	2	8,173
May-22	232,102	25,713	280	257,884	62,559	7,102	9	69,670	17,676	2,465	2	20,143	16,741	1,796	6	18,535	7,246	912	3	8,160	3	8,160
Jun-22	232,102	25,733	282	258,117	62,443	7,096	9	69,548	17,615	2,462	2	20,077	16,668	1,786	6	18,460	7,223	912	3	8,139	3	8,139
Jul-22	232,122	25,711	284	258,116	62,321	7,092	9	69,423	17,601	2,459	2	20,113	16,709	1,790	6	18,460	7,215	913	3	8,139	3	8,139
Aug-22	232,296	25,779	282	258,357	62,331	7,095	9	69,334	17,607	2,456	2	20,065	16,641	1,786	6	18,433	7,136	914	4	8,054	4	8,054
Sep-22	232,768	25,836	283	258,888	62,338	7,108	9	69,357	17,581	2,456	2	20,037	16,650	1,792	6	18,448	7,128	915	8	8,052	8	8,052
Oct-22	233,678	25,853	281	259,812	62,689	7,101	9	69,799	17,689	2,456	2	20,147	16,782	1,806	6	18,568	7,202	916	8	8,125	8	8,125
Nov-22	234,173	25,942	284	260,398	63,133	7,149	9	70,291	17,873	2,467	2	20,341	16,930	1,801	5	18,848	7,299	915	3	8,217	3	8,217
Dec-22	234,927	26,004	284	261,215	63,589	7,168	9	70,766	17,965	2,469	2	20,435	16,986	1,806	5	18,848	7,309	915	2	8,226	2	8,226
Jan-23	234,730	26,004	283	260,920	63,234	7,155	9	70,398	18,035	2,480	2	20,516	16,986	1,806	5	18,796	7,309	915	2	8,223	2	8,223
Feb-23	234,730	26,060	282	261,073	63,282	7,159	9	70,450	18,066	2,482	2	20,548	17,009	1,812	6	18,846	7,309	916	2	8,227	2	8,227
Mar-23	234,947	26,040	282	261,268	63,383	7,168	9	70,559	18,106	2,482	2	20,591	17,028	1,813	6	18,846	7,309	916	2	8,227	2	8,227
Apr-23	234,877	26,024	282	261,182	63,356	7,151	9	70,513	18,045	2,474	2	20,520	17,002	1,809	6	18,816	7,305	914	2	8,220	2	8,220
May-23	235,089	26,049	282	261,398	63,368	7,145	9	70,528	18,016	2,485	2	20,503	16,939	1,801	6	18,746	7,291	914	3	8,208	3	8,208
Jun-23	235,304	26,049	285	261,636	63,250	7,145	9	70,403	17,951	2,482	2	20,435	16,865	1,799	6	18,669	7,268	914	3	8,185	3	8,185
Jul-23	235,324	26,026	285	261,636	63,125	7,141	9	70,276	17,990	2,479	2	20,472	16,907	1,802	6	18,714	7,195	915	3	8,113	3	8,113
Aug-23	235,503	26,096	283	261,882	63,033	7,144	9	70,185	17,945	2,474	2	20,422	16,838	1,799	6	18,642	7,180	916	4	8,100	4	8,100
Sep-23	235,986	26,154	285	262,125	63,142	7,158	9	70,309	17,918	2,474	2	20,394	16,847	1,804	6	18,656	7,171	918	8	8,097	8	8,097
Oct-23	236,917	26,171	283	263,370	63,501	7,150	9	70,660	18,029	2,475	2	20,507	16,847	1,804	6	18,656	7,171	918	8	8,097	8	8,097
Nov-23	237,424	26,262	284	263,970	63,954	7,199	9	71,162	18,219	2,486	2	20,707	17,132	1,802	6	18,939	7,306	917	8	8,229	8	8,229
Dec-23	238,195	26,325	285	264,806	64,420	7,218	9	71,647	18,313	2,488	2	20,804	17,247	1,813	5	19,065	7,345	917	3	8,265	3	8,265
Jan-24	237,851	26,291	281	264,423	64,015	7,205	9	71,229	18,281	2,500	2	20,883	17,179	1,819	5	19,003	7,354	917	2	8,274	2	8,274
Feb-24	237,919	26,376	283	264,578	64,064	7,210	9	71,283	18,413	2,501	2	20,916	17,203	1,825	6	19,053	7,355	918	2	8,275	2	8,275
Mar-24	238,141	26,355	282	264,778	64,167	7,218	9	71,348	18,454	2,503	2	20,959	17,222	1,826	6	19,053	7,355	918	2	8,275	2	8,275
Apr-24	238,069	26,339	282	264,691	64,140	7,199	9	71,348	18,391	2,494	2	20,887	17,195	1,822	6	18,951	7,336	916	3	8,255	3	8,255
May-24	238,286	26,343	282	264,911	64,031	7,201	9	71,363	18,361	2,505	2	20,869	17,131									

Appendix 2.2 - Customer Forecast - Number by Region
 Low Growth Case

	WA/ID Res		WA/ID Com		WA/ID Firm Ind		WA/ID Total		MFR Res		MFR Firm Ind		MFR Total		ROS Res		ROS Firm Ind		ROS Total		KLA Res		KLA Firm Ind		KLA Total		LGD Res		LGD Firm Ind		LGD Total	
	WA/ID Res	WA/ID Com	WA/ID Firm Ind	WA/ID Total	MFR Res	MFR Firm Ind	MFR Total	ROS Res	ROS Firm Ind	ROS Total	KLA Res	KLA Firm Ind	KLA Total	LGD Res	LGD Firm Ind	LGD Total																
Nov-25	243,925	26,902	286	271,113	65,534	7,303	72,845	18,921	2,529	21,452	17,530	1,829	19,364	7,396	922	8,324																
Dec-25	244,732	26,969	287	271,987	66,018	7,322	73,349	19,022	2,531	21,555	17,649	1,841	19,495	7,436	922	8,361																
Jan-26	244,176	26,920	283	271,380	65,559	7,309	72,877	19,083	2,543	21,629	17,583	1,847	19,435	7,437	922	8,361																
Feb-26	244,247	27,009	286	271,541	65,610	7,313	72,932	19,117	2,544	21,663	17,608	1,853	19,467	7,444	922	8,368																
Mar-26	244,479	26,987	285	271,750	65,717	7,322	73,048	19,161	2,546	21,709	17,628	1,854	19,487	7,438	922	8,365																
Apr-26	244,404	26,970	285	271,659	65,689	7,302	73,000	19,094	2,537	21,633	17,600	1,850	19,455	7,433	920	8,355																
May-26	244,630	26,974	287	271,889	65,702	7,304	73,015	19,063	2,540	21,613	17,533	1,842	19,381	7,419	920	8,342																
Jun-26	244,860	26,997	287	272,144	65,576	7,298	72,883	18,992	2,546	21,540	17,455	1,839	19,300	7,395	921	8,319																
Jul-26	244,882	26,972	288	272,143	65,444	7,295	72,747	19,035	2,543	21,580	17,499	1,843	19,348	7,319	922	8,244																
Aug-26	245,072	27,047	287	272,406	65,345	7,297	72,652	18,985	2,539	21,526	17,426	1,839	19,271	7,304	923	8,231																
Sep-26	245,589	27,108	288	272,985	65,462	7,312	72,783	18,956	2,537	21,495	17,436	1,845	19,286	7,295	924	8,228																
Oct-26	246,583	27,126	286	273,995	65,842	7,304	73,155	19,077	2,539	21,618	17,577	1,843	19,416	7,373	924	8,305																
Nov-26	247,125	27,223	287	274,635	66,323	7,354	73,686	19,283	2,551	21,836	17,738	1,842	19,586	7,434	924	8,364																
Jan-27	247,949	27,290	288	275,527	66,817	7,374	74,200	19,387	2,553	21,941	17,859	1,855	19,719	7,474	924	8,401																
Feb-27	247,264	27,235	285	274,784	66,291	7,361	73,661	19,434	2,564	22,001	17,788	1,860	19,653	7,482	924	8,408																
Mar-27	247,573	27,303	286	275,162	66,343	7,365	73,711	19,469	2,565	22,036	17,814	1,867	19,707	7,489	924	8,415																
Apr-27	247,497	27,286	286	275,069	66,452	7,375	73,835	19,515	2,567	22,083	17,834	1,867	19,748	7,483	924	8,409																
May-27	247,728	27,290	286	275,304	66,436	7,354	73,786	19,446	2,558	22,005	17,805	1,863	19,674	7,478	922	8,402																
Jun-27	247,962	27,313	288	275,563	66,308	7,351	73,667	19,414	2,569	21,985	17,738	1,855	19,599	7,464	922	8,389																
Jul-27	247,984	27,288	290	275,562	66,173	7,347	73,529	19,340	2,567	21,909	17,657	1,853	19,516	7,440	923	8,366																
Aug-27	248,179	27,364	288	275,831	66,073	7,349	73,432	19,385	2,563	21,950	17,703	1,856	19,565	7,363	924	8,290																
Sep-27	248,706	27,427	289	276,422	66,192	7,364	73,565	19,304	2,558	21,863	17,628	1,858	19,487	7,348	925	8,277																
Oct-27	249,721	27,444	288	277,453	66,579	7,356	73,944	19,428	2,560	21,895	17,658	1,858	19,502	7,339	927	8,274																
Nov-27	250,274	27,543	289	278,055	67,069	7,407	74,485	19,640	2,571	21,990	17,783	1,847	19,635	7,417	926	8,352																
Dec-27	251,115	27,612	290	279,017	67,572	7,428	75,008	19,747	2,573	22,322	17,946	1,856	19,807	7,479	926	8,411																

Demand Coefficients

Appendix 2.3

Regression--Residential WA & ID				
Coefficients				
Model	B	Unstandardized Coefficients Std. Error	t	Sig.
1 (Constant)		0.0301 0.0023	12.9224	2.68657E-30
NHDDD		0.0094 0.0001	63.6034	7.2305E-169
NQDDD		0.0019 0.0001	14.9808	1.07403E-37

a Dependent Variable: RNDT

Regression--Commercial WA & ID				
Coefficients				
Model	B	Unstandardized Coefficients Std. Error	t	Sig.
1 (Constant)		0.2134 0.0113	18.8746	6.91553E-52
NHDDD		0.0472 0.0007	65.9534	5.1129E-173
NQDDD		0.0115 0.0006	19.0984	1.06953E-52

a Dependent Variable: CNDT

Regression--Firm Industrial WA & ID				
Coefficients				
Model	B	Unstandardized Coefficients Std. Error	t	Sig.
1 (Constant)		4.3748 0.080897048	54.07863783	1.4517E-150
NHDDD		0.1164 0.005117407	22.75515098	1.0506E-65
NQDDD		0.0452 0.004309456	10.4915236	6.02302E-22

a Dependent Variable: INDT

Regression--Residential Medford				
Coefficients				
Model	B	Unstandardized Coefficients Std. Error	t	Sig.
1 (Constant)		0.0376 0.0015	25.6122	1.85684E-75
MHDDD		0.0095 0.0001	67.2378	3.1236E-175
MQDDD		0.0017 0.0001	13.5006	2.35291E-32

a Dependent Variable: RMDT

Regression--Commercial Medford				
Coefficients				
Model	B	Unstandardized Coefficients Std. Error	t	Sig.
1 (Constant)		0.2903 0.0155	18.7306	2.30114E-51
MHDDD		0.0452 0.0015	30.4767	4.51413E-91
MQDDD		0.0002 0.0013	0.1656	0.868594306

a Dependent Variable: CMDT

Regression--Firm Industrial Medford				
Coefficients				
Model	B	Unstandardized Coefficients Std. Error	t	Sig.
1 (Constant)		0.029406813 0.028566584	1.029412998	0.304170887
MHDDD		0.075782114 0.002736531	27.69276501	2.71243E-82
MQDDD		0.001501534 0.002462884	0.609664908	0.54257646

a Dependent Variable: CMDT

Regression--Residential WA & ID			
		Calibration Correction (%)	Final
Base	0.0301	1.6196	0.0488
Shoulder	0.0094	0.6304	0.0059
Dec-Jan-Feb	0.0112	0.9259	0.0104
Nov & Mar	0.0094	0.9702	0.0091

Regression--Commercial WA & ID			
		Calibration Correction (%)	Final
Base	0.2134	1.6196	0.3456
Shoulder	0.0472	0.6304	0.0297
Dec-Jan-Feb	0.0587	0.9259	0.0543
Nov & Mar	0.0472	0.9702	0.0458

Regression--Firm Industrial WA & ID			
		Calibration Correction (%)	Final
Base	4.3748	1.6196	7.0854
Shoulder	0.1164	0.6304	0.0734
Dec-Jan-Feb	0.1617	0.9259	0.1497
Nov & Mar	0.1164	0.9702	0.1130

Regression--Residential Medford			
		Calibration Correction (%)	Final
Base	0.0376	1.1754	0.0442
Shoulder	0.0095	0.7691	0.0073
Dec-Jan-Feb	0.0112	1.0440	0.0117
Nov & Mar	0.0095	1.0680	0.0101

Regression--Commercial Medford			
		Calibration Correction (%)	Final
Base	0.2903	1.1754	0.3412
Shoulder	0.0452	0.7691	0.0348
Dec-Jan-Feb	0.0455	1.0440	0.0475
Nov & Mar	0.0452	1.0680	0.0483

Regression--Firm Industrial Medford			
		Calibration Correction (%)	Final
Base	0.0294	1.1754	0.0346
Shoulder	0.0758	0.7691	0.0583
Dec-Jan-Feb	0.0773	1.0440	0.0807
Nov & Mar	0.0758	1.0680	0.0809

Regression--Residential Roseburg				
Coefficients				
Model	B	Unstandardized Coefficients Std. Error	t	Sig.
1 (Constant)		0.0359 0.0012	28.9895	1.958E-86
RHDDD		0.0106 0.0001	79.6055	8.2663E-195
RQDDD		0.0013 0.0001	10.7946	5.92577E-23

a Dependent Variable: RRDT

Regression--Residential Roseburg			
		Calibration Correction (%)	Final
Base	0.0359	1.2964	0.0465
Shoulder	0.0106	0.7245	0.0077
Dec-Jan-Feb	0.0119	0.9789	0.0117
Nov & Mar	0.0106	0.9349	0.0099

Regression--Commercial Roseburg				
Coefficients				
Model	B	Unstandardized Coefficients Std. Error	t	Sig.
1 (Constant)		0.2805 0.0163	17.2281	6.81002E-46
RHDDD		0.0534 0.0018	30.3715	9.5193E-91
RQDDD		-0.0011 0.0016	-0.6839	0.494595161

a Dependent Variable: CRDT

Regression--Commercial Roseburg			
		Calibration Correction (%)	Final
Base	0.2805	1.2964	0.3637
Shoulder	0.0534	0.7245	0.0387
Dec-Jan-Feb	0.0523	0.9789	0.0512
Nov & Mar	0.0534	0.9349	0.0499

Regression--Firm Industrial Roseburg				
Coefficients				
Model	B	Unstandardized Coefficients Std. Error	t	Sig.
1 (Constant)		11.9581 0.1814	65.9241	5.7476E-173
RHDDD		0.6041 0.0196	30.8542	3.13865E-92
RQDDD		-0.1701 0.0177	-9.6239	3.91227E-19

a Dependent Variable: IRDT

Regression--Firm Industrial Roseburg			
		Calibration Correction (%)	Final
Base	11.9581	1.2964	15.5025
Shoulder	0.6041	0.7245	0.4377
Dec-Jan-Feb	0.4340	0.9789	0.4249
Nov & Mar	0.6041	0.9349	0.5648

Regression--Residential Klamath Falls				
Coefficients				
Model	B	Unstandardized Coefficients Std. Error	t	Sig.
1 (Constant)		0.0137 0.0031	4.4168	1.43108E-05
KHDDD		0.0079 0.0002	41.3221	2.0409E-121
KQDDD		0.0020 0.0002	13.1000	6.29945E-31

a Dependent Variable: RKDT

Regression--Residential Klamath Falls			
		Calibration Correction (%)	Final
Base	0.0137	2.3155	0.0318
Shoulder	0.0079	0.5186	0.0041
Dec-Jan-Feb	0.0099	0.8426	0.0084
Nov & Mar	0.0079	0.8476	0.0067

Regression--Commercial Klamath Falls				
Coefficients				
Model	B	Unstandardized Coefficients Std. Error	t	Sig.
1 (Constant)		0.1506 0.0266	5.6723	3.49963E-08
KHDDD		0.0419 0.0016	25.6776	1.12342E-75
KQDDD		0.0023 0.0013	1.7302	0.08469882

a Dependent Variable: CKDT

Regression--Commercial Klamath Falls			
		Calibration Correction (%)	Final
Base	0.1506	2.3155	0.3488
Shoulder	0.0419	0.5186	0.0217
Dec-Jan-Feb	0.0442	0.8426	0.0372
Nov & Mar	0.0419	0.8476	0.0355

Regression--Firm Industrial Klamath Falls				
Coefficients				
Model	B	Unstandardized Coefficients Std. Error	t	Sig.
1 (Constant)		0.038518325 0.03941458	0.977260814	0.329280619
KHDDD		0.054989665 0.002420898	22.71457399	1.45482E-65
KQDDD		0.010036591 0.00197617	5.078808335	6.92943E-07

a Dependent Variable: CKDT

Regression--Firm Industrial Klamath Falls			
		Calibration Correction (%)	Final
Base	0.0385	2.3155	0.0892
Shoulder	0.0550	0.5186	0.0285
Dec-Jan-Feb	0.0650	0.8426	0.0548
Nov & Mar	0.0550	0.8476	0.0466

Regression--Residential La Grande				
Coefficients				
Model	B	Unstandardized Coefficients Std. Error	t	Sig.
1 (Constant)		0.0145 0.0047	3.0840	0.002245712
LHDDD		0.0091 0.0003	29.1164	7.7838E-87
LQDDD		0.0018 0.0003	6.9195	3.06602E-11

a Dependent Variable: RLDT

Regression--Residential La Grande			
		Calibration Correction (%)	Final
Base	0.0145	2.0591	0.0299
Shoulder	0.0091	0.6308	0.0057
Dec-Jan-Feb	0.0109	1.1194	0.0122
Nov & Mar	0.0091	1.1161	0.0102

Regression--Commercial La Grande				
Coefficients				
Model	B	Unstandardized Coefficients Std. Error	t	Sig.
1 (Constant)		0.1274 0.0226	5.6466	4.00306E-08
LHDDD		0.0407 0.0015	27.1824	1.22582E-80
LQDDD		0.0046 0.0013	3.6881	0.000271162

a Dependent Variable: CLDT

Regression--Commercial La Grande			
		Calibration Correction (%)	Final
Base	0.1274	2.0591	0.2623
Shoulder	0.0407	0.6308	0.0257
Dec-Jan-Feb	0.0454	1.1194	0.0508
Nov & Mar	0.0407	1.1161	0.0455

Regression--Firm Industrial La Grande				
Coefficients				
Model	B	Unstandardized Coefficients Std. Error	t	Sig.
1 (Constant)		27.2292 1.6612	16.3912	7.75936E-43
LHDDD		-1.1588 0.1104	-10.4999	5.65102E-22
LQDDD		0.3679 0.0923	3.9869	8.54086E-05

a Dependent Variable: ILDT

Regression--Firm Industrial La Grande			
		Calibration Correction (%)	Final
Base	27.2292	2.0591	56.0676
Shoulder	(1.1588)	0.6308	-
Dec-Jan-Feb	(0.7909)	1.1194	-
Nov & Mar	(1.1588)	1.1161	-

Detailed Demand Data

Appendix 2.4

Appendix 2.4 - A

Annual Avg. Demand (MDth/d)

(Net of DSM Savings)

Area	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Expected Case										
Klam Falls	3.81	3.88	3.96	4.05	4.14	4.21	4.28	4.36	4.46	4.54
La Grande	2.43	2.45	2.47	2.49	2.51	2.53	2.55	2.58	2.61	2.64
Medford GTN	10.41	10.61	10.85	11.09	11.38	11.61	11.85	12.11	12.41	12.66
Medford NWP	4.68	4.77	4.87	4.98	5.11	5.22	5.33	5.44	5.58	5.69
Roseburg	4.24	4.32	4.43	4.55	4.70	4.83	4.96	5.10	5.27	5.42
OR Sub-Total	25.56	26.02	26.58	27.16	27.84	28.40	28.97	29.60	30.33	30.95
Spokane	40.49	41.37	42.38	43.42	44.53	45.29	46.23	46.77	47.75	48.56
Spokane GTN	5.59	5.71	5.85	5.99	6.14	6.25	6.36	6.46	6.59	6.70
Spokane NWP	23.74	24.25	24.85	25.46	26.12	26.57	27.01	27.44	28.02	28.49
WA/ID Sub-Total	69.81	71.33	73.07	74.87	76.79	78.11	79.60	80.67	82.36	83.75
Expected Case Total	95.37	97.35	99.65	102.03	104.63	106.51	108.58	110.27	112.69	114.70
High Case										
Klam Falls	3.82	3.88	4.05	4.21	4.37	4.50	4.63	4.75	4.90	5.02
La Grande	2.70	2.70	2.77	2.81	2.86	2.91	2.95	2.99	3.04	3.08
Medford GTN	10.48	10.66	11.16	11.59	12.08	12.48	12.89	13.29	13.75	14.12
Medford NWP	4.71	4.79	5.01	5.21	5.43	5.61	5.79	5.97	6.18	6.35
Roseburg	4.30	4.38	4.60	4.80	5.05	5.26	5.48	5.70	5.96	6.18
OR Sub-Total	26.01	26.40	27.59	28.63	29.79	30.75	31.75	32.72	33.83	34.75
Spokane	41.32	42.15	44.25	46.14	47.70	49.22	50.81	52.24	53.82	55.07
Spokane GTN	5.70	5.82	6.11	6.37	6.64	6.84	7.06	7.24	7.43	7.60
Spokane NWP	24.22	24.72	25.95	27.06	27.97	28.87	29.80	30.65	31.57	32.31
WA/ID Sub-Total	71.24	72.69	76.30	79.56	82.31	84.93	87.67	90.12	92.82	94.99
High Case Total	97.25	99.09	103.89	108.19	112.09	115.68	119.42	122.84	126.65	129.74
Low Case										
Klam Falls	3.76	3.69	3.74	3.79	3.83	3.86	3.89	3.93	3.97	4.01
La Grande	2.47	2.41	2.43	2.45	2.45	2.46	2.47	2.48	2.49	2.51
Medford GTN	10.29	10.11	10.25	10.40	10.54	10.63	10.74	10.85	11.00	11.11
Medford NWP	4.62	4.54	4.60	4.67	4.74	4.78	4.83	4.88	4.94	4.99
Roseburg	4.22	4.15	4.22	4.29	4.36	4.42	4.48	4.54	4.63	4.69
OR Sub-Total	25.37	24.91	25.23	25.60	25.93	26.15	26.40	26.68	27.04	27.31
Spokane	40.11	39.41	39.99	40.62	41.02	41.19	41.43	41.74	42.16	42.43
Spokane GTN	5.53	5.44	5.52	5.61	5.66	5.69	5.72	5.76	5.82	5.86
Spokane NWP	23.52	23.11	23.45	23.82	24.06	24.16	24.35	24.49	24.74	24.90
WA/ID Sub-Total	69.17	67.96	68.96	70.05	70.73	71.04	71.50	71.99	72.73	73.19
Low Case Total	94.53	92.86	94.19	95.65	96.66	97.18	97.91	98.68	99.77	100.50

Appendix 2.4 - A
Annual Avg. Demand (MDth/d)
 (Net of DSM Savings)

Area	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
Expected Case										
Klam Falls	4.71	4.80	4.87	4.96	5.04	5.13	5.20	5.29	5.38	5.46
La Grande	2.69	2.72	2.74	2.76	2.79	2.81	2.83	2.85	2.87	2.88
Medford GTN	13.20	13.50	13.73	13.99	14.24	14.53	14.74	14.98	15.22	15.50
Medford NWP	5.93	6.07	6.17	6.29	6.40	6.53	6.62	6.73	6.84	6.96
Roseburg	5.72	5.88	6.02	6.17	6.31	6.47	6.61	6.77	6.92	7.08
OR Sub-Total	32.25	32.98	33.54	34.16	34.77	35.46	36.00	36.62	37.23	37.89
Spokane	50.53	51.65	52.62	53.70	54.82	56.04	57.07	58.20	59.31	60.56
Spokane GTN	6.98	7.13	7.26	7.41	7.57	7.74	7.88	8.03	8.19	8.36
Spokane NWP	29.65	30.30	30.87	31.51	32.16	32.88	33.48	34.14	34.80	35.53
WA/ID Sub-Total	87.15	89.08	90.75	92.63	94.55	96.66	98.43	100.37	102.29	104.44
Expected Case Total	119.40	122.06	124.29	126.78	129.33	132.12	134.44	136.99	139.52	142.33
High Case										
Klam Falls	5.14	5.26	5.39	5.50	5.62	5.73	5.85	5.96	6.09	6.21
La Grande	3.11	3.15	3.18	3.22	3.25	3.28	3.30	3.33	3.35	3.38
Medford GTN	14.41	14.90	15.33	15.66	16.03	16.38	16.78	17.07	17.43	17.78
Medford NWP	6.48	6.69	6.89	7.04	7.20	7.36	7.54	7.67	7.83	7.99
Roseburg	6.40	6.62	6.86	7.06	7.27	7.48	7.71	7.91	8.13	8.35
OR Sub-Total	35.53	36.62	37.65	38.47	39.37	40.24	41.18	41.94	42.84	43.71
Spokane	56.44	57.96	59.62	61.08	62.71	64.31	66.07	67.56	69.25	70.90
Spokane GTN	7.79	8.00	8.23	8.43	8.66	8.88	9.12	9.32	9.56	9.78
Spokane NWP	33.11	34.00	34.98	35.83	36.79	37.73	38.76	39.63	40.62	41.59
WA/ID Sub-Total	97.35	99.96	102.83	105.33	108.15	110.92	113.95	116.51	119.43	122.27
High Case Total	132.88	136.58	140.48	143.80	147.52	151.15	155.14	158.45	162.28	165.98
Low Case										
Klam Falls	4.04	4.08	4.12	4.15	4.19	4.22	4.25	4.27	4.31	4.34
La Grande	2.52	2.53	2.54	2.55	2.56	2.56	2.57	2.57	2.58	2.58
Medford GTN	11.23	11.36	11.52	11.61	11.71	11.81	11.94	12.00	12.10	12.19
Medford NWP	5.05	5.10	5.17	5.21	5.26	5.31	5.37	5.40	5.44	5.48
Roseburg	4.77	4.84	4.92	4.98	5.05	5.11	5.18	5.24	5.30	5.37
OR Sub-Total	27.61	27.91	28.26	28.50	28.77	29.01	29.31	29.49	29.72	29.96
Spokane	42.85	43.28	43.80	44.19	44.65	45.06	45.56	45.89	46.31	46.73
Spokane GTN	5.92	5.98	6.05	6.10	6.16	6.22	6.29	6.34	6.39	6.45
Spokane NWP	25.15	25.40	25.71	25.93	26.20	26.44	26.73	26.93	27.17	27.42
WA/ID Sub-Total	73.92	74.65	75.56	76.22	77.01	77.73	78.58	79.15	79.87	80.61
Low Case Total	101.53	102.57	103.82	104.71	105.78	106.74	107.89	108.64	109.60	110.57

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Annual Avg. Demand (MDth/d)

By Class (Net of DSM Savings)

Area	2007/2008				2008/2009			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
Expected Case								
Klam Falls	2.24	1.57	0.00	3.81	2.28	1.59	0.00	3.88
La Grande	1.36	0.91	0.16	2.43	1.38	0.91	0.16	2.45
Medford GTN	6.27	4.13	-	10.41	6.42	4.19	-	10.61
Medford NWP	2.82	1.86	-	4.68	2.88	1.88	-	4.77
Roseburg	2.21	1.98	0.04	4.24	2.27	2.01	0.04	4.32
OR Sub-Total	14.90	10.45	0.20	25.56	15.23	10.58	0.21	26.02
Spokane Both	23.63	15.49	1.37	40.49	24.18	15.79	1.40	41.37
Spokane GTN	3.26	2.14	0.19	5.59	3.34	2.18	0.19	5.71
Spokane NWP	13.85	9.08	0.80	23.74	14.18	9.26	0.82	24.25
WA/ID Sub-Total	40.74	26.70	2.36	69.81	41.69	27.23	2.41	71.33
Expected Case Total	55.64	37.16	2.57	95.37	56.93	37.81	2.61	97.35
High Case								
Klam Falls	2.25	1.57	0.01	3.82	2.29	1.59	0.01	3.88
La Grande	1.36	0.92	0.42	2.70	1.37	0.92	0.42	2.70
Medford GTN	6.31	4.17	-	10.48	6.45	4.21	-	10.66
Medford NWP	2.83	1.87	-	4.71	2.90	1.89	-	4.79
Roseburg	2.23	2.02	0.04	4.30	2.29	2.04	0.04	4.38
OR Sub-Total	14.98	10.56	0.47	26.01	15.29	10.65	0.47	26.40
Spokane Both	24.03	15.77	1.52	41.32	24.57	16.04	1.55	42.15
Spokane GTN	3.31	2.18	0.21	5.70	3.39	2.21	0.21	5.82
Spokane NWP	14.09	9.25	0.89	24.22	14.41	9.40	0.91	24.72
WA/ID Sub-Total	41.43	27.20	2.62	71.24	42.36	27.65	2.67	72.69
High Case Total	56.41	37.75	3.09	97.25	57.65	38.30	3.14	99.09
Low Case								
Klam Falls	2.21	1.55	0.01	3.76	2.16	1.52	0.01	3.69
La Grande	1.35	0.91	0.21	2.47	1.31	0.88	0.22	2.41
Medford GTN	6.20	4.09	-	10.29	6.09	4.02	-	10.11
Medford NWP	2.78	1.84	-	4.62	2.74	1.81	-	4.54
Roseburg	2.19	1.99	0.04	4.22	2.15	1.96	0.04	4.15
OR Sub-Total	14.72	10.38	0.26	25.37	14.45	10.19	0.26	24.91
Spokane Both	23.37	15.35	1.39	40.11	22.93	15.09	1.39	39.41
Spokane GTN	3.22	2.12	0.19	5.53	3.16	2.08	0.19	5.44
Spokane NWP	13.70	9.00	0.82	23.52	13.45	8.85	0.81	23.11
WA/ID Sub-Total	40.29	26.47	2.40	69.17	39.54	26.02	2.40	67.96
Low Case Total	55.01	36.86	2.66	94.53	53.99	36.21	2.66	92.86

Appendix 2.4 - B Annual Avg. Demand (MDth/d)

By Class (Net of DSM Savings)

Area	2009/2010				2010/2011			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
Expected Case								
Klam Falls	2.34	1.61	0.00	3.96	2.41	1.63	0.00	4.05
La Grande	1.40	0.91	0.16	2.47	1.41	0.91	0.16	2.49
Medford GTN	6.61	4.24	-	10.85	6.80	4.29	-	11.09
Medford NWP	2.97	1.91	-	4.87	3.06	1.93	-	4.98
Roseburg	2.35	2.04	0.04	4.43	2.44	2.07	0.04	4.55
OR Sub-Total	15.66	10.72	0.21	26.58	16.12	10.83	0.21	27.16
Spokane Both	24.80	16.15	1.43	42.38	25.42	16.54	1.46	43.42
Spokane GTN	3.42	2.23	0.20	5.85	3.51	2.28	0.20	5.99
Spokane NWP	14.55	9.47	0.84	24.85	14.91	9.69	0.85	25.46
WA/ID Sub-Total	42.76	27.85	2.46	73.07	43.85	28.51	2.51	74.87
Expected Case Total	58.42	38.57	2.66	99.65	59.97	39.34	2.72	102.03
High Case								
Klam Falls	2.41	1.64	0.01	4.05	2.53	1.67	0.01	4.21
La Grande	1.42	0.93	0.42	2.77	1.45	0.94	0.42	2.81
Medford GTN	6.82	4.34	-	11.16	7.16	4.43	-	11.59
Medford NWP	3.06	1.95	-	5.01	3.21	1.99	-	5.21
Roseburg	2.43	2.12	0.04	4.60	2.59	2.18	0.04	4.80
OR Sub-Total	16.14	10.98	0.47	27.59	16.94	11.22	0.47	28.63
Spokane Both	25.86	16.78	1.60	44.25	27.02	17.46	1.66	46.14
Spokane GTN	3.57	2.31	0.22	6.11	3.73	2.41	0.23	6.37
Spokane NWP	15.17	9.84	0.94	25.95	15.85	10.23	0.97	27.06
WA/ID Sub-Total	44.60	28.93	2.77	76.30	46.60	30.10	2.86	79.56
High Case Total	60.74	39.91	3.24	103.89	63.54	41.32	3.33	108.19
Low Case								
Klam Falls	2.19	1.54	0.01	3.74	2.24	1.55	0.01	3.79
La Grande	1.33	0.89	0.22	2.43	1.34	0.89	0.22	2.45
Medford GTN	6.20	4.05	-	10.25	6.32	4.08	-	10.40
Medford NWP	2.78	1.82	-	4.60	2.84	1.84	-	4.67
Roseburg	2.20	1.98	0.04	4.22	2.25	2.00	0.04	4.29
OR Sub-Total	14.70	10.27	0.26	25.23	14.98	10.36	0.26	25.60
Spokane Both	23.27	15.31	1.41	39.99	23.63	15.56	1.43	40.62
Spokane GTN	3.21	2.11	0.19	5.52	3.26	2.15	0.20	5.61
Spokane NWP	13.65	8.98	0.83	23.45	13.86	9.12	0.84	23.82
WA/ID Sub-Total	40.13	26.40	2.43	68.96	40.75	26.83	2.46	70.05
Low Case Total	54.82	36.68	2.69	94.19	55.73	37.19	2.73	95.65

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Annual Avg. Demand (MDth/d)

By Class (Net of DSM Savings)

Area	2011/2012				2012/2013			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
Expected Case								
Klam Falls	2.49	1.65	0.00	4.14	2.54	1.66	0.00	4.21
La Grande	1.43	0.92	0.16	2.51	1.46	0.92	0.16	2.53
Medford GTN	7.04	4.34	-	11.38	7.24	4.38	-	11.61
Medford NWP	3.16	1.95	-	5.11	3.25	1.97	-	5.22
Roseburg	2.55	2.10	0.04	4.70	2.66	2.13	0.04	4.83
OR Sub-Total	16.68	10.96	0.20	27.84	17.14	11.05	0.21	28.40
Spokane Both	26.06	16.98	1.48	44.53	26.43	17.37	1.49	45.29
Spokane GTN	3.60	2.34	0.20	6.14	3.65	2.40	0.21	6.25
Spokane NWP	15.29	9.96	0.87	26.12	15.51	10.18	0.88	26.57
WA/ID Sub-Total	44.95	29.28	2.55	76.79	45.58	29.95	2.58	78.11
Expected Case Total	61.63	40.24	2.76	104.63	62.73	41.00	2.78	106.51
High Case								
Klam Falls	2.66	1.71	0.01	4.37	2.75	1.74	0.01	4.50
La Grande	1.49	0.95	0.42	2.86	1.53	0.96	0.42	2.91
Medford GTN	7.55	4.53	-	12.08	7.88	4.60	-	12.48
Medford NWP	3.39	2.04	-	5.43	3.54	2.07	-	5.61
Roseburg	2.77	2.23	0.04	5.05	2.94	2.28	0.04	5.26
OR Sub-Total	17.86	11.46	0.47	29.79	18.64	11.64	0.47	30.75
Spokane Both	27.79	18.21	1.70	47.70	28.64	18.87	1.72	49.22
Spokane GTN	3.89	2.51	0.23	6.64	4.00	2.60	0.24	6.84
Spokane NWP	16.30	10.68	0.99	27.97	16.80	11.06	1.01	28.87
WA/ID Sub-Total	47.98	31.40	2.92	82.31	49.43	32.53	2.97	84.93
High Case Total	65.84	42.87	3.39	112.09	68.07	44.17	3.44	115.68
Low Case								
Klam Falls	2.27	1.56	0.01	3.83	2.29	1.56	0.01	3.86
La Grande	1.35	0.89	0.21	2.45	1.36	0.89	0.22	2.46
Medford GTN	6.44	4.11	-	10.54	6.51	4.12	-	10.63
Medford NWP	2.89	1.85	-	4.74	2.93	1.85	-	4.78
Roseburg	2.31	2.01	0.04	4.36	2.35	2.02	0.04	4.42
OR Sub-Total	15.25	10.42	0.26	25.93	15.45	10.44	0.26	26.15
Spokane Both	23.78	15.79	1.44	41.02	23.78	15.96	1.45	41.19
Spokane GTN	3.28	2.18	0.20	5.66	3.28	2.20	0.20	5.69
Spokane NWP	13.96	9.26	0.84	24.06	13.96	9.36	0.85	24.16
WA/ID Sub-Total	41.02	27.23	2.48	70.73	41.02	27.52	2.49	71.04
Low Case Total	56.28	37.64	2.74	96.66	56.47	37.96	2.76	97.18

Appendix 2.4 - B
Annual Avg. Demand (MDth/d)
 By Class (Net of DSM Savings)

Area	2013/2014				2014/2015			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
Expected Case								
Klam Falls	2.60	1.68	0.00	4.28	2.66	1.70	0.00	4.36
La Grande	1.47	0.92	0.16	2.55	1.50	0.92	0.16	2.58
Medford GTN	7.44	4.41	-	11.85	7.65	4.46	-	12.11
Medford NWP	3.34	1.98	-	5.33	3.44	2.01	-	5.44
Roseburg	2.76	2.16	0.04	4.96	2.87	2.19	0.04	5.10
OR Sub-Total	17.62	11.15	0.21	28.97	18.11	11.28	0.21	29.60
Spokane Both	26.92	17.80	1.52	46.23	27.02	18.22	1.54	46.77
Spokane GTN	3.69	2.45	0.21	6.36	3.74	2.51	0.21	6.46
Spokane NWP	15.69	10.43	0.89	27.01	15.86	10.68	0.90	27.44
WA/ID Sub-Total	46.31	30.68	2.61	79.60	46.62	31.41	2.65	80.67
Expected Case Total	63.93	41.83	2.82	108.58	64.73	42.69	2.86	110.27
High Case								
Klam Falls	2.86	1.77	0.01	4.63	2.95	1.80	0.01	4.75
La Grande	1.57	0.96	0.42	2.95	1.60	0.97	0.42	2.99
Medford GTN	8.21	4.68	-	12.89	8.53	4.76	-	13.29
Medford NWP	3.69	2.10	-	5.79	3.83	2.14	-	5.97
Roseburg	3.11	2.33	0.04	5.48	3.27	2.39	0.04	5.70
OR Sub-Total	19.43	11.85	0.47	31.75	20.19	12.06	0.47	32.72
Spokane Both	29.49	19.56	1.76	50.81	30.24	20.21	1.79	52.24
Spokane GTN	4.12	2.70	0.24	7.06	4.20	2.79	0.25	7.24
Spokane NWP	17.30	11.47	1.03	29.80	17.75	11.85	1.05	30.65
WA/ID Sub-Total	50.91	33.73	3.03	87.67	52.19	34.84	3.09	90.12
High Case Total	70.34	45.58	3.50	119.42	72.38	46.90	3.56	122.84
Low Case								
Klam Falls	2.32	1.57	0.01	3.89	2.35	1.58	0.01	3.93
La Grande	1.36	0.89	0.22	2.47	1.37	0.89	0.22	2.48
Medford GTN	6.61	4.13	-	10.74	6.70	4.15	-	10.85
Medford NWP	2.97	1.86	-	4.83	3.01	1.87	-	4.88
Roseburg	2.40	2.03	0.04	4.48	2.45	2.05	0.04	4.54
OR Sub-Total	15.66	10.48	0.26	26.40	15.89	10.53	0.26	26.68
Spokane Both	23.81	16.17	1.46	41.43	23.91	16.37	1.47	41.74
Spokane GTN	3.29	2.23	0.20	5.72	3.30	2.26	0.20	5.76
Spokane NWP	14.02	9.48	0.86	24.35	14.03	9.59	0.86	24.49
WA/ID Sub-Total	41.12	27.87	2.52	71.50	41.24	28.22	2.53	71.99
Low Case Total	56.78	38.35	2.78	97.91	57.13	38.75	2.80	98.68

Appendix 2.4 - B

Annual Avg. Demand (MDth/d)

By Class (Net of DSM Savings)

Area	2015/2016				2016/2017			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
Expected Case								
Klam Falls	2.73	1.73	0.00	4.46	2.78	1.75	0.00	4.54
La Grande	1.52	0.93	0.16	2.61	1.55	0.93	0.16	2.64
Medford GTN	7.88	4.53	-	12.41	8.08	4.59	-	12.66
Medford NWP	3.54	2.04	-	5.58	3.63	2.06	-	5.69
Roseburg	2.99	2.24	0.04	5.27	3.10	2.28	0.04	5.42
OR Sub-Total	18.67	11.46	0.20	30.33	19.13	11.61	0.21	30.95
Spokane Both	27.51	18.68	1.56	47.75	27.92	19.06	1.57	48.56
Spokane GTN	3.80	2.58	0.22	6.59	3.86	2.63	0.22	6.70
Spokane NWP	16.15	10.95	0.91	28.02	16.39	11.18	0.92	28.49
WA/ID Sub-Total	47.47	32.20	2.69	82.36	48.17	32.87	2.71	83.75
Expected Case Total	66.13	43.66	2.89	112.69	67.30	44.48	2.92	114.70
High Case								
Klam Falls	3.05	1.85	0.01	4.90	3.13	1.88	0.01	5.02
La Grande	1.64	0.98	0.42	3.04	1.68	0.98	0.42	3.08
Medford GTN	8.89	4.86	-	13.75	9.18	4.95	-	14.12
Medford NWP	3.99	2.19	-	6.18	4.12	2.22	-	6.35
Roseburg	3.46	2.46	0.04	5.96	3.62	2.52	0.04	6.18
OR Sub-Total	21.03	12.33	0.47	33.83	21.73	12.56	0.47	34.75
Spokane Both	31.08	20.91	1.83	53.82	31.75	21.48	1.85	55.07
Spokane GTN	4.30	2.88	0.25	7.43	4.39	2.96	0.25	7.60
Spokane NWP	18.24	12.26	1.07	31.57	18.64	12.59	1.08	32.31
WA/ID Sub-Total	53.62	36.06	3.15	92.82	54.77	37.03	3.18	94.99
High Case Total	74.65	48.39	3.62	126.65	76.50	49.59	3.65	129.74
Low Case								
Klam Falls	2.37	1.59	0.01	3.97	2.40	1.60	0.01	4.01
La Grande	1.39	0.89	0.21	2.49	1.40	0.89	0.22	2.51
Medford GTN	6.82	4.18	-	11.00	6.90	4.20	-	11.11
Medford NWP	3.07	1.88	-	4.94	3.10	1.89	-	4.99
Roseburg	2.51	2.08	0.04	4.63	2.56	2.09	0.04	4.69
OR Sub-Total	16.16	10.62	0.26	27.04	16.36	10.69	0.26	27.31
Spokane Both	24.08	16.60	1.48	42.16	24.17	16.77	1.49	42.43
Spokane GTN	3.33	2.29	0.20	5.82	3.34	2.31	0.21	5.86
Spokane NWP	14.14	9.73	0.87	24.74	14.20	9.83	0.87	24.90
WA/ID Sub-Total	41.55	28.63	2.55	72.73	41.71	28.92	2.56	73.19
Low Case Total	57.71	39.25	2.82	99.77	58.07	39.61	2.83	100.50

Appendix 2.4 - B
Annual Avg. Demand (MDth/d)
 By Class (Net of DSM Savings)

Area	2017/2018				2018/2019			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
Expected Case								
Klam Falls	2.84	1.78	0.00	4.63	2.90	1.80	0.00	4.71
La Grande	1.57	0.94	0.16	2.67	1.59	0.94	0.16	2.69
Medford GTN	8.28	4.65	-	12.93	8.49	4.71	-	13.20
Medford NWP	3.72	2.09	-	5.81	3.81	2.12	-	5.93
Roseburg	3.21	2.32	0.04	5.57	3.32	2.36	0.04	5.72
OR Sub-Total	19.63	11.78	0.21	31.61	20.12	11.93	0.21	32.25
Spokane Both	28.46	19.48	1.59	49.53	29.02	19.90	1.61	50.53
Spokane GTN	3.93	2.69	0.22	6.84	4.01	2.75	0.22	6.98
Spokane NWP	16.71	11.42	0.93	29.06	17.03	11.67	0.94	29.65
WA/ID Sub-Total	49.10	33.59	2.74	85.43	50.06	34.32	2.77	87.15
Expected Case Total	68.73	45.37	2.94	117.04	70.18	46.25	2.98	119.40
High Case								
Klam Falls	3.21	1.92	0.01	5.14	3.30	1.95	0.01	5.26
La Grande	1.71	0.98	0.42	3.11	1.74	0.99	0.42	3.15
Medford GTN	9.40	5.01	-	14.41	9.78	5.12	-	14.90
Medford NWP	4.22	2.25	-	6.48	4.39	2.30	-	6.69
Roseburg	3.78	2.58	0.04	6.40	3.95	2.63	0.04	6.62
OR Sub-Total	22.32	12.74	0.47	35.53	23.15	13.00	0.47	36.62
Spokane Both	32.51	22.06	1.87	56.44	33.37	22.69	1.90	57.96
Spokane GTN	4.49	3.04	0.26	7.79	4.61	3.13	0.26	8.00
Spokane NWP	19.09	12.93	1.10	33.11	19.59	13.30	1.11	34.00
WA/ID Sub-Total	56.09	38.04	3.22	97.35	57.57	39.11	3.28	99.96
High Case Total	78.41	50.78	3.69	132.88	80.72	52.11	3.75	136.58
Low Case								
Klam Falls	2.42	1.62	0.01	4.04	2.45	1.63	0.01	4.08
La Grande	1.41	0.90	0.22	2.52	1.41	0.90	0.22	2.53
Medford GTN	7.00	4.24	-	11.23	7.09	4.27	-	11.36
Medford NWP	3.14	1.90	-	5.05	3.19	1.91	-	5.10
Roseburg	2.61	2.11	0.04	4.77	2.67	2.13	0.04	4.84
OR Sub-Total	16.59	10.76	0.26	27.61	16.81	10.84	0.26	27.91
Spokane Both	24.38	16.97	1.50	42.85	24.60	17.18	1.51	43.28
Spokane GTN	3.37	2.34	0.21	5.92	3.40	2.37	0.21	5.98
Spokane NWP	14.32	9.95	0.88	25.15	14.45	10.07	0.88	25.40
WA/ID Sub-Total	42.07	29.27	2.58	73.92	42.44	29.61	2.60	74.65
Low Case Total	58.65	40.03	2.84	101.53	59.25	40.45	2.86	102.57

Appendix 2.4 - B

Annual Avg. Demand (MDth/d)

By Class (Net of DSM Savings)

Area	2019/2020				2020/2021			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
Expected Case								
Klam Falls	2.97	1.83	0.00	4.80	3.02	1.85	0.00	4.87
La Grande	1.61	0.95	0.16	2.72	1.63	0.95	0.16	2.74
Medford GTN	8.72	4.79	-	13.50	8.90	4.84	-	13.73
Medford NWP	3.92	2.15	-	6.07	4.00	2.17	-	6.17
Roseburg	3.44	2.40	0.04	5.88	3.55	2.43	0.04	6.02
OR Sub-Total	20.66	12.11	0.20	32.98	21.10	12.23	0.21	33.54
Spokane Both	29.65	20.38	1.62	51.65	30.21	20.78	1.63	52.62
Spokane GTN	4.10	2.81	0.22	7.13	4.17	2.87	0.22	7.26
Spokane NWP	17.41	11.95	0.95	30.30	17.74	12.18	0.96	30.87
WA/ID Sub-Total	51.16	35.14	2.79	89.08	52.12	35.82	2.81	90.75
Expected Case Total	71.82	47.25	2.99	122.06	73.22	48.05	3.02	124.29
High Case								
Klam Falls	3.40	1.99	0.01	5.39	3.48	2.01	0.01	5.50
La Grande	1.77	1.00	0.42	3.18	1.80	1.00	0.42	3.22
Medford GTN	10.11	5.22	-	15.33	10.37	5.29	-	15.66
Medford NWP	4.54	2.35	-	6.89	4.66	2.38	-	7.04
Roseburg	4.12	2.69	0.04	6.86	4.28	2.73	0.04	7.06
OR Sub-Total	23.94	13.25	0.47	37.65	24.58	13.42	0.47	38.47
Spokane Both	34.34	23.37	1.92	59.62	35.19	23.95	1.94	61.08
Spokane GTN	4.74	3.22	0.26	8.23	4.86	3.30	0.27	8.43
Spokane NWP	20.15	13.70	1.12	34.98	20.65	14.04	1.13	35.83
WA/ID Sub-Total	59.23	40.30	3.30	102.83	60.70	41.29	3.34	105.33
High Case Total	83.17	53.55	3.77	140.48	85.28	54.72	3.81	143.80
Low Case								
Klam Falls	2.48	1.64	0.01	4.12	2.50	1.64	0.01	4.15
La Grande	1.42	0.90	0.21	2.54	1.43	0.90	0.22	2.55
Medford GTN	7.21	4.31	-	11.52	7.28	4.33	-	11.61
Medford NWP	3.24	1.93	-	5.17	3.27	1.94	-	5.21
Roseburg	2.73	2.15	0.04	4.92	2.77	2.16	0.04	4.98
OR Sub-Total	17.07	10.93	0.26	28.26	17.26	10.98	0.26	28.50
Spokane Both	24.87	17.42	1.51	43.80	25.07	17.59	1.52	44.19
Spokane GTN	3.44	2.40	0.21	6.05	3.46	2.43	0.21	6.10
Spokane NWP	14.61	10.21	0.89	25.71	14.72	10.31	0.89	25.93
WA/ID Sub-Total	42.92	30.03	2.61	75.56	43.26	30.33	2.62	76.22
Low Case Total	59.99	40.96	2.87	103.82	60.52	41.31	2.88	104.71

Appendix 2.4 - B
Annual Avg. Demand (MDth/d)
 By Class (Net of DSM Savings)

Area	2021/2022				2022/2023			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
Expected Case								
Klam Falls	3.08	1.87	0.00	4.96	3.14	1.89	0.00	5.04
La Grande	1.65	0.95	0.16	2.76	1.67	0.96	0.16	2.79
Medford GTN	9.09	4.89	-	13.99	9.28	4.96	-	14.24
Medford NWP	4.08	2.20	-	6.29	4.17	2.23	-	6.40
Roseburg	3.66	2.46	0.04	6.17	3.77	2.50	0.04	6.31
OR Sub-Total	21.57	12.38	0.21	34.16	22.04	12.53	0.21	34.77
Spokane Both	30.85	21.21	1.64	53.70	31.51	21.65	1.66	54.82
Spokane GTN	4.26	2.93	0.23	7.41	4.35	2.99	0.23	7.57
Spokane NWP	18.11	12.44	0.96	31.51	18.50	12.69	0.97	32.16
WA/ID Sub-Total	53.22	36.58	2.83	92.63	54.36	37.33	2.86	94.55
Expected Case Total	74.79	48.96	3.04	126.78	76.40	49.86	3.06	129.33
High Case								
Klam Falls	3.56	2.05	0.01	5.62	3.65	2.08	0.01	5.73
La Grande	1.82	1.00	0.42	3.25	1.85	1.01	0.42	3.28
Medford GTN	10.65	5.38	-	16.03	10.92	5.46	-	16.38
Medford NWP	4.79	2.42	-	7.20	4.91	2.46	-	7.36
Roseburg	4.45	2.78	0.04	7.27	4.61	2.83	0.04	7.48
OR Sub-Total	25.27	13.63	0.47	39.37	25.93	13.84	0.47	40.24
Spokane Both	36.16	24.59	1.95	62.71	37.12	25.21	1.98	64.31
Spokane GTN	4.99	3.39	0.27	8.66	5.13	3.48	0.27	8.88
Spokane NWP	21.22	14.42	1.15	36.79	21.79	14.78	1.16	37.73
WA/ID Sub-Total	62.38	42.40	3.37	108.15	64.04	43.47	3.41	110.92
High Case Total	87.65	56.03	3.84	147.52	89.97	57.31	3.88	151.15
Low Case								
Klam Falls	2.53	1.65	0.01	4.19	2.55	1.66	0.01	4.22
La Grande	1.44	0.90	0.22	2.56	1.44	0.90	0.22	2.56
Medford GTN	7.37	4.34	-	11.71	7.44	4.37	-	11.81
Medford NWP	3.31	1.95	-	5.26	3.34	1.96	-	5.31
Roseburg	2.83	2.18	0.04	5.05	2.88	2.19	0.04	5.11
OR Sub-Total	17.47	11.04	0.26	28.77	17.65	11.09	0.26	29.01
Spokane Both	25.32	17.80	1.53	44.65	25.55	17.98	1.53	45.06
Spokane GTN	3.50	2.46	0.21	6.16	3.53	2.48	0.21	6.22
Spokane NWP	14.87	10.44	0.89	26.20	15.00	10.54	0.90	26.44
WA/ID Sub-Total	43.69	30.69	2.63	77.01	44.09	31.00	2.64	77.73
Low Case Total	61.17	41.73	2.89	105.78	61.74	42.09	2.91	106.74

Appendix 2.4 - B

Annual Avg. Demand (MDth/d)

By Class (Net of DSM Savings)

Area	2023/2024				2024/2025			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
Expected Case								
Klam Falls	3.20	1.92	0.00	5.13	3.26	1.94	0.00	5.20
La Grande	1.69	0.96	0.16	2.81	1.70	0.97	0.16	2.83
Medford GTN	9.50	5.03	-	14.53	9.65	5.08	-	14.74
Medford NWP	4.27	2.26	-	6.53	4.34	2.29	-	6.62
Roseburg	3.89	2.54	0.04	6.47	4.00	2.57	0.04	6.61
OR Sub-Total	22.55	12.71	0.20	35.46	22.95	12.85	0.21	36.00
Spokane Both	32.24	22.13	1.67	56.04	32.85	22.54	1.68	57.07
Spokane GTN	4.45	3.05	0.23	7.74	4.54	3.11	0.23	7.88
Spokane NWP	18.93	12.98	0.98	32.88	19.28	13.21	0.98	33.48
WA/ID Sub-Total	55.62	38.16	2.87	96.66	56.68	38.86	2.90	98.43
Expected Case Total	78.17	50.87	3.08	132.12	79.62	51.71	3.10	134.44
High Case								
Klam Falls	3.74	2.11	0.01	5.85	3.81	2.15	0.01	5.96
La Grande	1.87	1.01	0.42	3.30	1.89	1.02	0.42	3.33
Medford GTN	11.22	5.56	-	16.78	11.44	5.64	-	17.07
Medford NWP	5.04	2.50	-	7.54	5.14	2.53	-	7.67
Roseburg	4.78	2.89	0.04	7.71	4.93	2.94	0.04	7.91
OR Sub-Total	26.64	14.07	0.47	41.18	27.20	14.27	0.47	41.94
Spokane Both	38.20	25.88	1.99	66.07	39.09	26.45	2.01	67.56
Spokane GTN	5.27	3.57	0.27	9.12	5.40	3.65	0.28	9.32
Spokane NWP	22.42	15.17	1.17	38.76	22.94	15.51	1.18	39.63
WA/ID Sub-Total	65.89	44.63	3.43	113.95	67.43	45.61	3.47	116.51
High Case Total	92.53	58.70	3.90	155.14	94.63	59.88	3.94	158.45
Low Case								
Klam Falls	2.57	1.67	0.01	4.25	2.59	1.68	0.01	4.27
La Grande	1.45	0.90	0.21	2.57	1.45	0.91	0.22	2.57
Medford GTN	7.54	4.40	-	11.94	7.59	4.42	-	12.00
Medford NWP	3.39	1.98	-	5.37	3.41	1.99	-	5.40
Roseburg	2.93	2.21	0.04	5.18	2.97	2.23	0.04	5.24
OR Sub-Total	17.88	11.17	0.26	29.31	18.01	11.22	0.26	29.49
Spokane Both	25.82	18.20	1.54	45.56	25.99	18.35	1.54	45.89
Spokane GTN	3.57	2.51	0.21	6.29	3.59	2.53	0.21	6.34
Spokane NWP	15.16	10.67	0.90	26.73	15.26	10.76	0.90	26.93
WA/ID Sub-Total	44.55	31.38	2.65	78.58	44.85	31.64	2.66	79.15
Low Case Total	62.43	42.55	2.91	107.89	62.85	42.86	2.92	108.64

Appendix 2.4 - B
Annual Avg. Demand (MDth/d)
 By Class (Net of DSM Savings)

Area	2025/2026				2026/2027			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
Expected Case								
Klam Falls	3.32	1.97	0.00	5.29	3.38	2.00	0.00	5.38
La Grande	1.72	0.97	0.16	2.85	1.73	0.97	0.16	2.87
Medford GTN	9.84	5.15	-	14.98	10.01	5.21	-	15.22
Medford NWP	4.42	2.32	-	6.73	4.50	2.34	-	6.84
Roseburg	4.11	2.61	0.04	6.77	4.23	2.65	0.04	6.92
OR Sub-Total	23.40	13.01	0.21	36.62	23.85	13.18	0.21	37.23
Spokane Both	33.52	22.99	1.69	58.20	34.17	23.44	1.71	59.31
Spokane GTN	4.63	3.17	0.23	8.03	4.72	3.23	0.24	8.19
Spokane NWP	19.67	13.48	0.99	34.14	20.05	13.74	1.00	34.80
WA/ID Sub-Total	57.82	39.64	2.92	100.37	58.94	40.41	2.94	102.29
Expected Case Total	81.22	52.65	3.12	136.99	82.79	53.59	3.15	139.52
High Case								
Klam Falls	3.90	2.18	0.01	6.09	3.99	2.22	0.01	6.21
La Grande	1.91	1.02	0.42	3.35	1.93	1.03	0.42	3.38
Medford GTN	11.71	5.73	-	17.43	11.96	5.82	-	17.78
Medford NWP	5.26	2.58	-	7.83	5.37	2.62	-	7.99
Roseburg	5.10	3.00	0.04	8.13	5.26	3.05	0.04	8.35
OR Sub-Total	27.87	14.50	0.47	42.84	28.51	14.74	0.47	43.71
Spokane Both	40.12	27.11	2.03	69.25	41.09	27.75	2.06	70.90
Spokane GTN	5.54	3.74	0.28	9.56	5.67	3.83	0.28	9.78
Spokane NWP	23.54	15.89	1.19	40.62	24.11	16.27	1.20	41.59
WA/ID Sub-Total	69.20	46.74	3.50	119.43	70.88	47.85	3.54	122.27
High Case Total	97.07	61.24	3.97	162.28	99.39	62.58	4.01	165.98
Low Case								
Klam Falls	2.61	1.69	0.01	4.31	2.63	1.70	0.01	4.34
La Grande	1.45	0.91	0.22	2.58	1.46	0.91	0.22	2.58
Medford GTN	7.66	4.44	-	12.10	7.73	4.47	-	12.19
Medford NWP	3.44	2.00	-	5.44	3.47	2.01	-	5.48
Roseburg	3.02	2.24	0.04	5.30	3.07	2.26	0.04	5.37
OR Sub-Total	18.18	11.28	0.26	29.72	18.36	11.34	0.26	29.96
Spokane Both	26.22	18.54	1.55	46.31	26.44	18.74	1.55	46.73
Spokane GTN	3.62	2.56	0.21	6.39	3.65	2.58	0.21	6.45
Spokane NWP	15.39	10.87	0.91	27.17	15.53	10.99	0.91	27.42
WA/ID Sub-Total	45.23	31.97	2.67	79.87	45.62	32.31	2.68	80.61
Low Case Total	63.42	43.25	2.93	109.60	63.98	43.65	2.94	110.57

Appendix 2.4 - C
Annual Demand Total (MDth)
 By Class (Net of DSM Savings)

Area Expected Case	2007/2008				2008/2009			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
Klam Falls	819.10	574.41	1.60	1,395.11	833.83	580.85	1.59	1,416.27
La Grande	498.01	332.29	58.14	888.45	503.05	332.31	58.09	893.45
Medford GTN	2,295.64	1,513.18	-	3,808.81	2,342.47	1,528.87	-	3,871.34
Medford NWP	1,031.37	679.86	-	1,711.24	1,052.41	686.95	-	1,739.36
Rosburg	809.71	725.26	15.28	1,550.25	828.25	733.18	15.23	1,576.66
OR Sub-Total	5,453.83	3,825.01	75.02	9,353.86	5,560.02	3,862.16	74.91	9,497.08
Spokane Both	8,648.11	5,668.88	501.97	14,818.96	8,825.15	5,763.99	509.20	15,098.34
Spokane GTN	1,193.09	781.91	69.24	2,044.24	1,217.76	795.03	70.23	2,083.02
Spokane NWP	5,070.64	3,323.14	294.26	8,688.03	5,175.46	3,378.89	298.50	8,852.85
WA/ID Sub-Total	14,911.84	9,773.93	865.46	25,551.24	15,218.37	9,937.91	877.94	26,034.21
Base Case Total	20,365.67	13,598.94	940.48	34,905.10	20,778.38	13,800.06	952.84	35,531.29
High Case								
Klam Falls	821.92	575.58	2.16	1,399.66	834.43	579.98	2.15	1,416.56
La Grande	498.07	337.83	153.91	989.80	498.95	334.13	153.79	986.87
Medford GTN	2,309.08	1,525.04	-	3,834.13	2,353.66	1,535.94	-	3,889.60
Medford NWP	1,037.41	685.20	-	1,722.61	1,057.44	690.12	-	1,747.57
Rosburg	816.43	740.28	15.28	1,571.99	835.52	746.40	15.16	1,597.08
OR Sub-Total	5,482.91	3,863.93	171.34	9,518.19	5,580.00	3,886.57	171.10	9,637.67
Spokane Both	8,793.36	5,773.17	555.72	15,122.25	8,966.99	5,853.20	566.09	15,386.28
Spokane GTN	1,213.13	796.30	76.65	2,086.08	1,237.32	807.34	78.08	2,122.74
Spokane NWP	5,155.78	3,384.27	325.77	8,865.82	5,258.61	3,431.19	331.85	9,021.64
WA/ID Sub-Total	15,162.27	9,953.75	958.13	26,074.15	15,462.92	10,091.72	976.02	26,530.66
High Case Total	20,645.18	13,817.68	1,129.48	35,592.34	21,042.92	13,978.29	1,147.12	36,168.33
Low Case								
Klam Falls	807.83	567.51	1.95	1,377.29	788.71	556.05	1.94	1,346.70
La Grande	493.33	332.21	78.66	904.21	479.57	322.53	78.55	880.65
Medford GTN	2,268.04	1,497.93	-	3,765.97	2,222.51	1,466.64	-	3,689.15
Medford NWP	1,018.97	673.02	-	1,691.99	998.52	658.99	-	1,657.51
Rosburg	800.02	729.47	15.28	1,544.76	786.11	715.23	15.09	1,516.42
OR Sub-Total	5,388.19	3,800.14	95.89	9,284.21	5,275.41	3,719.44	95.58	9,090.43
Spokane Both	8,552.62	5,619.89	509.29	14,681.80	8,368.53	5,508.71	507.44	14,384.68
Spokane GTN	1,179.92	775.16	70.25	2,025.32	1,154.77	759.82	69.99	1,984.59
Spokane NWP	5,014.66	3,294.42	298.55	8,607.63	4,907.78	3,229.24	297.47	8,434.49
WA/ID Sub-Total	14,747.19	9,689.47	878.09	25,314.75	14,431.09	9,497.77	874.90	24,803.75
Low Case Total	20,135.38	13,489.61	973.98	34,598.97	19,706.50	13,217.21	970.48	33,894.19

Appendix 2.4 - C
Annual Demand Total (MDth)
 By Class (Net of DSM Savings)

Area Expected Case	2009/2010				2010/2011			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
	Klam Falls	855.13	588.71	1.59	1,445.43	880.99	595.00	1.59
La Grande	509.72	333.23	58.09	901.04	516.40	333.83	58.09	908.31
Medford GTN	2,411.29	1,548.49	-	3,959.78	2,482.40	1,565.43	-	4,047.83
Medford NWP	1,083.33	695.79	-	1,779.13	1,115.28	703.44	-	1,818.72
Rosburg	856.40	745.63	15.23	1,617.26	889.72	756.01	15.23	1,660.96
OR Sub-Total	5,715.89	3,911.85	74.91	9,702.64	5,884.80	3,953.71	74.91	9,913.41
Spokane Both	9,051.04	5,895.55	520.33	15,466.92	9,279.48	6,035.43	532.28	15,847.20
Spokane GTN	1,249.16	813.18	71.77	2,134.11	1,280.91	832.47	73.42	2,186.81
Spokane NWP	5,308.93	3,456.01	305.02	9,069.96	5,443.89	3,538.01	312.03	9,293.93
WA/ID Sub-Total	15,609.13	10,164.75	897.11	26,670.99	16,004.28	10,405.92	917.73	27,327.93
Base Case Total	21,325.02	14,076.60	972.02	36,373.63	21,889.07	14,359.63	992.64	37,241.34
High Case								
Klam Falls	878.71	598.71	2.15	1,479.57	923.80	611.02	2.15	1,536.97
La Grande	516.50	340.07	153.79	1,010.37	530.02	343.45	153.79	1,027.26
Medford GTN	2,488.80	1,583.63	-	4,072.43	2,611.86	1,618.75	-	4,230.61
Medford NWP	1,118.16	711.58	-	1,829.74	1,173.44	727.39	-	1,900.84
Rosburg	888.46	773.84	15.22	1,677.53	944.20	794.24	15.22	1,753.69
OR Sub-Total	5,890.63	4,007.84	171.17	10,069.64	6,183.31	4,094.86	171.20	10,449.37
Spokane Both	9,440.50	6,124.69	585.60	16,150.79	9,861.85	6,372.11	606.17	16,840.13
Spokane GTN	1,302.88	844.78	80.77	2,228.43	1,361.24	878.91	83.61	2,323.76
Spokane NWP	5,537.23	3,590.34	343.28	9,470.85	5,785.28	3,735.38	355.34	9,875.99
WA/ID Sub-Total	16,280.61	10,559.81	1,009.65	27,850.07	17,008.37	10,986.40	1,045.12	29,039.88
High Case Total	22,171.24	14,567.65	1,180.82	37,919.71	23,191.68	15,081.26	1,216.31	39,489.25
Low Case								
Klam Falls	800.93	560.91	1.94	1,363.77	816.47	565.46	1.94	1,383.86
La Grande	483.98	323.73	78.55	886.26	489.31	324.93	78.55	892.79
Medford GTN	2,261.65	1,478.58	-	3,740.23	2,305.16	1,490.62	-	3,795.78
Medford NWP	1,016.10	664.39	-	1,680.49	1,035.65	669.82	-	1,705.48
Rosburg	801.58	722.48	15.11	1,539.17	820.83	729.42	15.13	1,565.38
OR Sub-Total	5,364.24	3,750.09	95.60	9,209.93	5,467.41	3,780.25	95.62	9,343.28
Spokane Both	8,492.49	5,589.13	514.02	14,595.64	8,623.80	5,680.51	521.81	14,826.12
Spokane GTN	1,172.12	770.91	70.90	2,013.93	1,190.48	783.52	71.97	2,045.97
Spokane NWP	4,981.50	3,276.39	301.32	8,559.21	5,059.52	3,329.95	305.89	8,695.37
WA/ID Sub-Total	14,646.10	9,636.44	886.23	25,168.78	14,873.79	9,793.98	899.68	25,567.45
Low Case Total	20,010.35	13,386.53	981.83	34,378.70	20,341.21	13,574.23	995.30	34,910.73

Appendix 2.4 - C
Annual Demand Total (MDth)
 By Class (Net of DSM Savings)

Area	2011/2012				2012/2013			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
Expected Case								
Klam Falls	909.66	602.39	1.60	1,513.65	928.26	605.75	1.59	1,535.60
La Grande	525.09	335.59	58.14	918.82	531.27	335.13	58.09	924.48
Medford GTN	2,576.91	1,589.31	-	4,166.22	2,641.76	1,597.23	-	4,238.98
Medford NWP	1,157.74	714.20	-	1,871.94	1,186.88	717.78	-	1,904.66
Rosburg	933.86	769.74	15.28	1,718.89	969.57	776.81	15.23	1,761.61
OR Sub-Total	6,103.26	4,011.24	75.02	10,189.52	6,257.73	4,032.70	74.91	10,365.34
Spokane Both	9,539.17	6,215.68	541.39	16,296.24	9,645.37	6,340.65	545.48	16,531.51
Spokane GTN	1,316.99	857.33	74.68	2,249.00	1,331.72	874.57	75.24	2,281.54
Spokane NWP	5,597.19	3,643.54	317.37	9,558.10	5,659.84	3,716.94	319.77	9,696.55
WA/ID Sub-Total	16,453.34	10,716.55	933.44	28,103.33	16,636.94	10,932.16	940.49	28,509.59
Base Case Total	22,556.60	14,727.79	1,008.46	38,292.85	22,894.67	14,964.86	1,015.39	38,874.93
High Case								
Klam Falls	971.90	625.67	2.16	1,599.73	1,005.25	633.85	2.15	1,641.25
La Grande	546.03	347.88	153.91	1,047.82	557.88	348.88	153.79	1,060.56
Medford GTN	2,762.34	1,659.76	-	4,422.10	2,875.47	1,678.47	-	4,553.95
Medford NWP	1,241.05	745.25	-	1,986.30	1,291.88	754.39	-	2,046.27
Rosburg	1,013.76	817.49	15.33	1,846.58	1,072.62	832.21	15.29	1,920.13
OR Sub-Total	6,535.08	4,196.06	171.40	10,902.53	6,803.10	4,247.81	171.24	11,222.15
Spokane Both	10,171.28	6,665.50	620.56	17,457.34	10,452.28	6,886.45	628.26	17,966.99
Spokane GTN	1,423.27	919.57	85.59	2,428.43	1,458.28	950.04	86.66	2,494.97
Spokane NWP	5,967.21	3,907.47	363.77	10,238.46	6,132.86	4,037.02	368.29	10,538.17
WA/ID Sub-Total	17,561.76	11,492.54	1,069.93	30,124.22	18,043.41	11,873.50	1,083.21	31,000.13
High Case Total	24,096.83	15,688.60	1,241.32	41,026.75	24,846.52	16,121.31	1,254.45	42,222.28
Low Case								
Klam Falls	830.90	569.76	1.95	1,402.61	837.12	569.86	1.94	1,408.91
La Grande	493.81	325.88	78.66	898.36	495.56	324.76	78.55	898.87
Medford GTN	2,355.42	1,503.86	-	3,859.28	2,377.45	1,502.20	-	3,879.66
Medford NWP	1,058.23	675.81	-	1,734.04	1,068.91	675.15	-	1,744.06
Rosburg	843.67	736.89	15.18	1,595.75	858.64	738.02	15.13	1,611.80
OR Sub-Total	5,582.04	3,812.20	95.79	9,490.03	5,637.69	3,810.00	95.62	9,543.30
Spokane Both	8,705.29	5,779.86	526.84	15,011.99	8,679.87	5,826.71	528.17	15,034.75
Spokane GTN	1,201.84	797.22	72.67	2,071.73	1,198.55	803.65	72.85	2,075.06
Spokane NWP	5,107.83	3,388.20	308.84	8,804.87	5,093.85	3,415.66	309.62	8,819.13
WA/ID Sub-Total	15,014.96	9,965.29	908.35	25,888.59	14,972.27	10,046.02	910.64	25,928.93
Low Case Total	20,597.00	13,777.49	1,004.14	35,378.62	20,609.96	13,856.02	1,006.26	35,472.23

Appendix 2.4 - C
Annual Demand Total (MDth)
 By Class (Net of DSM Savings)

Area Expected Case	2013/2014				2014/2015			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
	Klam Falls	950.09	611.88	1.59	1,563.56	971.92	619.30	1.59
La Grande	538.24	335.83	58.09	932.15	546.86	336.72	58.09	941.66
Medford GTN	2,715.47	1,610.56	-	4,326.03	2,791.34	1,628.74	-	4,420.07
Medford NWP	1,219.99	723.93	-	1,943.92	1,254.08	732.14	-	1,986.22
Rosburg	1,007.64	786.98	15.23	1,809.85	1,047.29	799.94	15.23	1,862.46
OR Sub-Total	6,431.43	4,069.17	74.91	10,575.51	6,611.48	4,116.84	74.91	10,803.23
Spokane Both	9,825.79	6,495.56	553.03	16,874.38	9,862.20	6,648.76	561.00	17,071.96
Spokane GTN	1,348.59	895.94	76.28	2,320.80	1,363.70	917.25	77.38	2,358.33
Spokane NWP	5,728.47	3,807.75	324.19	9,860.41	5,788.83	3,897.73	328.86	10,015.42
WA/ID Sub-Total	16,902.84	11,199.25	953.50	29,055.59	17,014.74	11,463.74	967.24	29,445.71
Base Case Total	23,334.27	15,268.42	1,028.40	39,631.10	23,626.22	15,580.58	1,042.15	40,248.94
High Case								
Klam Falls	1,042.14	645.18	2.15	1,689.46	1,076.09	656.93	2.15	1,735.17
La Grande	571.36	351.13	153.79	1,076.29	584.85	352.88	153.79	1,091.53
Medford GTN	2,997.84	1,708.19	-	4,706.03	3,115.03	1,737.33	-	4,852.36
Medford NWP	1,346.86	767.79	-	2,114.64	1,399.51	780.93	-	2,180.44
Rosburg	1,134.62	851.58	15.30	2,001.51	1,194.72	872.24	15.30	2,082.26
OR Sub-Total	7,092.81	4,323.88	171.25	11,587.94	7,370.20	4,400.31	171.25	11,941.75
Spokane Both	10,762.81	7,140.88	641.34	18,545.03	11,037.78	7,376.36	653.74	19,067.88
Spokane GTN	1,503.76	985.16	88.46	2,577.37	1,533.58	1,017.65	90.17	2,641.40
Spokane NWP	6,315.84	4,186.19	375.96	10,877.98	6,477.97	4,324.25	383.23	11,185.45
WA/ID Sub-Total	18,582.41	12,312.22	1,105.76	32,000.39	19,049.33	12,718.26	1,127.14	32,894.73
High Case Total	25,675.22	16,636.10	1,277.00	43,588.33	26,419.53	17,118.57	1,298.39	44,836.48
Low Case								
Klam Falls	846.56	572.14	1.94	1,420.63	856.00	575.10	1.94	1,433.04
La Grande	498.20	324.73	78.55	901.48	501.86	324.67	78.55	905.08
Medford GTN	2,412.25	1,507.82	-	3,920.07	2,447.26	1,514.81	-	3,962.06
Medford NWP	1,083.76	677.64	-	1,761.41	1,099.49	680.86	-	1,780.35
Rosburg	876.28	742.50	15.13	1,633.92	895.00	748.03	15.13	1,658.16
OR Sub-Total	5,717.05	3,824.84	95.62	9,637.50	5,799.60	3,843.47	95.62	9,738.69
Spokane Both	8,689.03	5,900.46	532.52	15,122.00	8,725.53	5,973.80	536.48	15,235.81
Spokane GTN	1,200.04	813.75	73.45	2,087.23	1,205.29	823.98	74.00	2,103.27
Spokane NWP	5,118.17	3,458.56	312.17	8,888.90	5,122.51	3,502.06	314.49	8,939.06
WA/ID Sub-Total	15,007.23	10,172.76	918.14	26,098.13	15,053.33	10,299.83	924.97	26,278.14
Low Case Total	20,724.28	13,997.60	1,013.76	35,735.63	20,852.93	14,143.31	1,020.59	36,016.83

Appendix 2.4 - C
Annual Demand Total (MDth)
 By Class (Net of DSM Savings)

Area Expected Case	2015/2016				2016/2017			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
Klam Falls	998.05	631.98	1.60	1,631.63	1,016.07	639.74	1.59	1,657.41
La Grande	558.05	339.64	58.14	955.83	564.79	340.41	58.09	963.29
Medford GTN	2,885.20	1,657.50	-	4,542.70	2,947.56	1,674.17	-	4,621.74
Medford NWP	1,296.25	745.11	-	2,041.36	1,324.27	752.65	-	2,076.92
Rosburg	1,093.85	819.85	15.28	1,928.98	1,130.56	832.25	15.23	1,978.04
OR Sub-Total	6,831.40	4,194.08	75.02	11,100.50	6,983.25	4,239.23	74.91	11,297.39
Spokane Both	10,070.40	6,836.08	570.96	17,477.44	10,191.07	6,957.97	573.80	17,722.83
Spokane GTN	1,391.02	942.91	78.75	2,412.69	1,407.88	959.72	79.14	2,446.75
Spokane NWP	5,911.87	4,007.56	334.70	10,254.12	5,983.51	4,079.03	336.36	10,398.90
WA/ID Sub-Total	17,373.29	11,786.54	984.42	30,144.25	17,582.45	11,996.72	989.31	30,568.48
Base Case Total	24,204.69	15,980.62	1,059.44	41,244.75	24,565.71	16,235.95	1,064.21	41,865.87
High Case								
Klam Falls	1,115.50	675.32	2.16	1,792.98	1,143.38	686.93	2.15	1,832.46
La Grande	601.56	357.03	153.91	1,112.50	611.79	357.96	153.79	1,123.55
Medford GTN	3,253.38	1,779.93	-	5,033.31	3,349.46	1,805.91	-	5,155.37
Medford NWP	1,461.66	800.12	-	2,261.78	1,504.83	811.84	-	2,316.67
Rosburg	1,265.05	901.54	15.35	2,181.94	1,320.18	920.76	15.29	2,256.23
OR Sub-Total	7,697.15	4,513.94	171.42	12,382.51	7,929.65	4,583.39	171.24	12,684.27
Spokane Both	11,374.24	7,653.64	668.83	19,696.71	11,588.07	7,839.88	673.69	20,101.64
Spokane GTN	1,572.70	1,055.82	92.25	2,720.78	1,600.57	1,081.37	92.92	2,774.86
Spokane NWP	6,676.19	4,486.82	392.07	11,555.07	6,802.44	4,596.02	394.92	11,793.38
WA/ID Sub-Total	19,623.13	13,196.28	1,153.15	33,972.56	19,991.08	13,517.26	1,161.53	34,669.88
High Case Total	27,320.28	17,710.22	1,324.57	46,355.07	27,920.73	18,100.65	1,332.77	47,354.15
Low Case								
Klam Falls	869.17	582.29	1.95	1,453.40	875.13	585.10	1.94	1,462.17
La Grande	507.55	326.69	78.66	912.91	509.53	326.48	78.55	914.56
Medford GTN	2,497.00	1,530.23	-	4,027.23	2,519.46	1,534.79	-	4,054.25
Medford NWP	1,121.84	687.88	-	1,809.73	1,131.93	690.03	-	1,821.96
Rosburg	918.96	759.46	15.18	1,693.60	934.39	764.14	15.13	1,713.66
OR Sub-Total	5,914.53	3,886.55	95.79	9,896.87	5,970.43	3,900.55	95.62	9,966.60
Spokane Both	8,813.28	6,076.77	542.33	15,432.38	8,822.85	6,121.93	542.97	15,487.75
Spokane GTN	1,217.63	838.18	74.80	2,130.61	1,219.16	844.41	74.89	2,138.46
Spokane NWP	5,174.93	3,562.45	317.92	9,055.30	5,181.44	3,588.94	318.29	9,088.68
WA/ID Sub-Total	15,205.84	10,477.40	935.05	26,618.29	15,223.45	10,555.28	936.15	26,714.88
Low Case Total	21,120.37	14,363.95	1,030.84	36,515.15	21,193.88	14,455.83	1,031.77	36,681.48

Appendix 2.4 - C
Annual Demand Total (MDth)
 By Class (Net of DSM Savings)

Area Expected Case	2017/2018				2018/2019			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
	Klam Falls	1,038.13	648.88	1.59	1,688.60	1,059.46	657.70	1.59
La Grande	572.99	342.03	58.09	973.11	580.41	343.56	58.09	982.06
Medford GTN	3,023.38	1,697.47	-	4,720.85	3,098.48	1,720.03	-	4,818.51
Medford NWP	1,358.33	763.17	-	2,121.50	1,392.07	773.35	-	2,165.42
Rosburg	1,171.89	846.62	15.23	2,033.74	1,212.82	860.26	15.23	2,088.31
OR Sub-Total	7,164.73	4,298.17	74.91	11,537.80	7,343.25	4,354.89	74.91	11,773.05
Spokane Both	10,387.89	7,111.67	579.35	18,078.91	10,590.60	7,265.06	586.90	18,442.56
Spokane GTN	1,435.03	980.92	79.91	2,495.86	1,462.99	1,002.08	80.95	2,546.02
Spokane NWP	6,098.88	4,169.15	339.62	10,607.66	6,217.71	4,259.10	344.04	10,820.85
WA/ID Sub-Total	17,921.80	12,261.75	998.88	31,182.43	18,271.30	12,526.24	1,011.90	31,809.43
Base Case Total	25,086.53	16,559.91	1,073.79	42,720.23	25,614.55	16,881.13	1,086.80	43,582.48
High Case								
Klam Falls	1,173.43	699.01	2.15	1,874.59	1,205.30	711.81	2.15	1,919.25
La Grande	622.49	359.36	153.79	1,135.65	633.39	361.39	153.79	1,148.57
Medford GTN	3,430.20	1,830.06	-	5,260.26	3,568.26	1,869.38	-	5,437.64
Medford NWP	1,541.10	822.74	-	2,363.84	1,603.13	840.45	-	2,443.58
Rosburg	1,379.41	940.50	15.28	2,335.19	1,440.92	960.70	15.27	2,416.89
OR Sub-Total	8,146.64	4,651.66	171.22	12,969.52	8,451.00	4,743.73	171.21	13,365.94
Spokane Both	11,867.77	8,052.40	682.13	20,602.30	12,180.76	8,280.14	693.74	21,154.64
Spokane GTN	1,639.15	1,110.68	94.09	2,843.91	1,682.32	1,142.09	95.69	2,920.10
Spokane NWP	6,966.40	4,720.62	399.87	12,086.89	7,149.88	4,854.14	406.68	12,410.69
WA/ID Sub-Total	20,473.32	13,883.69	1,176.09	35,533.10	21,012.95	14,276.37	1,196.11	36,485.43
High Case Total	28,619.96	18,535.36	1,347.30	48,502.62	29,463.95	19,020.10	1,367.32	49,851.37
Low Case								
Klam Falls	884.69	589.65	1.94	1,476.28	893.88	594.04	1.94	1,489.85
La Grande	512.98	327.25	78.55	918.79	516.07	327.96	78.55	922.58
Medford GTN	2,554.43	1,546.24	-	4,100.67	2,589.07	1,557.32	-	4,146.39
Medford NWP	1,147.64	693.87	-	1,841.51	1,163.20	698.77	-	1,861.97
Rosburg	953.92	771.36	15.13	1,740.40	973.26	778.14	15.13	1,766.53
OR Sub-Total	6,053.65	3,928.37	95.62	10,077.64	6,135.47	3,956.23	95.62	10,187.32
Spokane Both	8,899.07	6,195.58	546.36	15,641.01	8,978.17	6,269.02	550.35	15,797.54
Spokane GTN	1,229.67	854.57	75.36	2,159.60	1,240.58	864.70	75.91	2,181.19
Spokane NWP	5,226.13	3,632.14	320.28	9,178.55	5,272.49	3,675.21	322.62	9,270.32
WA/ID Sub-Total	15,354.87	10,682.29	942.01	26,979.16	15,491.25	10,808.93	948.88	27,249.05
Low Case Total	21,408.52	14,610.66	1,037.63	37,056.80	21,626.72	14,765.16	1,044.50	37,436.37

Appendix 2.4 - C
Annual Demand Total (MDth)
 By Class (Net of DSM Savings)

Area	2019/2020				2020/2021			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
	Expected Case							
Klam Falls	1,085.74	669.33	1.60	1,756.66	1,103.02	674.36	1.59	1,778.96
La Grande	590.19	346.17	58.14	994.51	595.73	346.53	58.09	1,000.35
Medford GTN	3,190.98	1,751.80	-	4,942.78	3,246.93	1,764.82	-	5,011.75
Medford NWP	1,433.63	787.68	-	2,221.30	1,458.76	793.57	-	2,252.33
Rosburg	1,260.39	878.10	15.28	2,153.77	1,295.48	886.18	15.23	2,196.89
OR Sub-Total	7,560.93	4,433.08	75.02	12,069.03	7,699.92	4,465.45	74.91	12,240.28
Spokane Both	10,853.28	7,458.48	592.22	18,903.99	11,027.27	7,582.90	595.29	19,205.46
Spokane GTN	1,499.23	1,028.76	81.69	2,609.67	1,523.21	1,045.92	82.11	2,651.25
Spokane NWP	6,371.74	4,372.50	347.17	11,091.41	6,473.69	4,445.46	348.96	11,268.11
WA/ID Sub-Total	18,724.25	12,859.75	1,021.08	32,605.07	19,024.17	13,074.29	1,026.36	33,124.82
Base Case Total	26,285.18	17,292.83	1,096.10	44,674.10	26,724.09	17,539.74	1,101.27	45,365.11
High Case								
Klam Falls	1,243.29	727.58	2.16	1,973.02	1,269.43	735.04	2.15	2,006.62
La Grande	646.87	364.49	153.91	1,165.27	655.23	364.79	153.79	1,173.82
Medford GTN	3,698.92	1,912.29	-	5,611.21	3,784.12	1,932.34	-	5,716.47
Medford NWP	1,661.83	859.78	-	2,521.61	1,700.11	868.83	-	2,568.95
Rosburg	1,509.68	985.53	15.31	2,510.52	1,562.36	997.87	15.25	2,575.48
OR Sub-Total	8,760.58	4,849.67	171.38	13,781.64	8,971.25	4,898.88	171.20	14,041.33
Spokane Both	12,566.73	8,553.70	701.34	21,821.77	12,844.25	8,741.75	706.45	22,292.45
Spokane GTN	1,735.57	1,179.83	96.74	3,012.13	1,773.83	1,205.76	97.44	3,077.04
Spokane NWP	7,376.18	5,014.53	411.13	12,801.84	7,538.82	5,124.79	414.13	13,077.73
WA/ID Sub-Total	21,678.48	14,748.05	1,209.21	37,635.74	22,156.90	15,072.30	1,218.02	38,447.22
High Case Total	30,439.06	19,597.73	1,380.59	51,417.38	31,128.15	19,971.18	1,389.22	52,488.55
Low Case								
Klam Falls	907.11	598.71	1.95	1,507.77	912.79	599.99	1.94	1,514.72
La Grande	521.06	329.68	78.66	929.41	522.50	329.31	78.55	930.36
Medford GTN	2,638.10	1,576.40	-	4,214.50	2,657.63	1,579.31	-	4,236.95
Medford NWP	1,185.23	707.26	-	1,892.49	1,194.01	708.50	-	1,902.51
Rosburg	997.71	787.37	15.18	1,800.26	1,012.41	789.84	15.13	1,817.38
OR Sub-Total	6,249.21	3,999.42	95.79	10,344.42	6,299.34	4,006.96	95.62	10,401.92
Spokane Both	9,103.92	6,375.04	553.59	16,032.55	9,151.75	6,421.46	554.72	16,127.94
Spokane GTN	1,257.94	879.32	76.36	2,213.61	1,264.52	885.72	76.51	2,226.76
Spokane NWP	5,346.26	3,737.38	324.52	9,408.16	5,374.25	3,764.62	325.18	9,464.05
WA/ID Sub-Total	15,708.12	10,991.74	954.46	27,654.32	15,790.53	11,071.80	956.42	27,818.75
Low Case Total	21,957.33	14,991.16	1,050.25	37,998.74	22,089.86	15,078.76	1,052.04	38,220.67

Appendix 2.4 - C
Annual Demand Total (MDth)
 By Class (Net of DSM Savings)

Area Expected Case	2021/2022				2022/2023			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
	Klam Falls	1,124.98	682.38	1.59	1,808.95	1,146.57	690.83	1.59
La Grande	602.84	347.93	58.09	1,008.86	609.25	349.42	58.09	1,016.75
Medford GTN	3,318.22	1,786.37	-	5,104.58	3,388.30	1,808.71	-	5,197.01
Medford NWP	1,490.79	803.30	-	2,294.09	1,522.28	813.38	-	2,335.65
Rosburg	1,336.54	898.59	15.23	2,250.36	1,377.23	911.53	15.23	2,303.98
OR Sub-Total	7,873.37	4,518.56	74.91	12,466.84	8,043.62	4,573.86	74.91	12,692.39
Spokane Both	11,259.63	7,742.90	599.70	19,602.23	11,501.64	7,902.69	605.25	20,009.58
Spokane GTN	1,555.27	1,067.99	82.72	2,705.97	1,588.65	1,090.03	83.48	2,762.16
Spokane NWP	6,609.90	4,539.27	351.55	11,500.72	6,751.77	4,632.97	354.80	11,739.54
WA/ID Sub-Total	19,424.80	13,350.16	1,033.96	33,808.93	19,842.06	13,625.68	1,043.54	34,511.28
Base Case Total	27,298.17	17,868.73	1,108.87	46,275.77	27,865.68	18,199.54	1,118.45	47,203.67
High Case								
Klam Falls	1,301.15	746.43	2.15	2,049.73	1,332.13	757.92	2.15	2,092.20
La Grande	665.39	366.58	153.79	1,185.76	673.79	368.16	153.79	1,195.74
Medford GTN	3,888.08	1,963.14	-	5,851.22	3,986.87	1,993.50	-	5,980.36
Medford NWP	1,746.82	882.72	-	2,629.53	1,791.20	896.40	-	2,687.60
Rosburg	1,622.79	1,015.93	15.25	2,653.96	1,681.26	1,034.09	15.24	2,730.58
OR Sub-Total	9,224.22	4,974.79	171.19	14,370.21	9,465.24	5,050.06	171.18	14,686.48
Spokane Both	13,199.09	8,975.75	713.26	22,888.09	13,550.13	9,202.34	721.83	23,474.30
Spokane GTN	1,822.78	1,238.04	98.38	3,159.20	1,871.19	1,269.29	99.56	3,240.05
Spokane NWP	7,746.82	5,261.98	418.12	13,426.92	7,952.61	5,394.83	423.12	13,770.56
WA/ID Sub-Total	22,768.69	15,475.77	1,229.76	39,474.21	23,373.93	15,866.47	1,244.51	40,484.91
High Case Total	31,992.91	20,450.56	1,400.95	53,844.42	32,839.17	20,916.52	1,415.70	55,171.39
Low Case								
Klam Falls	922.23	603.66	1.94	1,527.83	929.81	606.91	1.94	1,538.65
La Grande	525.34	329.90	78.55	933.79	527.04	330.01	78.55	935.59
Medford GTN	2,689.76	1,585.48	-	4,275.24	2,717.01	1,593.97	-	4,310.98
Medford NWP	1,208.44	713.04	-	1,921.48	1,220.68	716.90	-	1,937.58
Rosburg	1,031.70	795.84	15.13	1,842.67	1,049.53	801.17	15.12	1,865.82
OR Sub-Total	6,377.47	4,027.92	95.62	10,501.01	6,444.06	4,048.96	95.61	10,588.63
Spokane Both	9,243.05	6,496.94	556.80	16,296.78	9,326.24	6,562.78	559.67	16,448.69
Spokane GTN	1,277.12	896.13	76.80	2,250.05	1,288.59	905.22	77.20	2,271.00
Spokane NWP	5,427.77	3,808.88	326.40	9,563.05	5,476.54	3,847.50	328.08	9,652.12
WA/ID Sub-Total	15,947.93	11,201.96	959.99	28,109.89	16,091.37	11,315.49	964.95	28,371.81
Low Case Total	22,325.41	15,229.88	1,055.61	38,610.90	22,535.43	15,364.45	1,060.55	38,960.44

Appendix 2.4 - C
Annual Demand Total (MDth)
 By Class (Net of DSM Savings)

Area Expected Case	2023/2024				2024/2025			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
	Klam Falls	1,172.48	702.48	1.60	1,876.56	1,188.55	709.56	1.59
La Grande	617.31	352.05	58.14	1,027.51	621.31	352.49	58.09	1,031.88
Medford GTN	3,475.63	1,840.58	-	5,316.21	3,523.21	1,855.34	-	5,378.54
Medford NWP	1,561.51	827.74	-	2,389.25	1,582.89	834.40	-	2,417.29
Rosburg	1,425.15	928.97	15.28	2,369.39	1,459.33	939.15	15.23	2,413.71
OR Sub-Total	8,252.08	4,651.82	75.02	12,978.92	8,375.29	4,690.94	74.91	13,141.13
Spokane Both	11,800.31	8,101.26	610.22	20,511.79	11,991.38	8,226.55	613.22	20,831.16
Spokane GTN	1,629.85	1,117.42	84.17	2,831.44	1,656.20	1,134.70	84.58	2,875.48
Spokane NWP	6,926.90	4,749.39	357.71	12,034.00	7,038.86	4,822.86	359.48	12,221.19
WA/ID Sub-Total	20,357.06	13,968.07	1,052.10	35,377.23	20,686.44	14,184.11	1,057.28	35,927.83
Base Case Total	28,609.14	18,619.89	1,127.12	48,356.16	29,061.73	18,875.05	1,132.19	49,068.96
High Case								
Klam Falls	1,367.41	773.11	2.16	2,142.68	1,390.34	783.39	2.15	2,175.88
La Grande	684.18	370.88	153.91	1,208.97	689.41	371.37	153.79	1,214.57
Medford GTN	4,105.71	2,034.75	-	6,140.46	4,174.37	2,056.89	-	6,231.26
Medford NWP	1,844.59	914.97	-	2,759.56	1,875.44	924.96	-	2,800.40
Rosburg	1,748.75	1,057.46	15.28	2,821.49	1,798.24	1,072.65	15.22	2,886.11
OR Sub-Total	9,750.64	5,151.18	171.34	15,073.16	9,927.80	5,209.26	171.16	15,308.21
Spokane Both	13,980.67	9,473.34	728.89	24,182.91	14,268.64	9,656.03	734.35	24,659.02
Spokane GTN	1,930.59	1,306.67	100.47	3,337.73	1,970.30	1,331.87	101.15	3,403.32
Spokane NWP	8,205.04	5,553.72	426.99	14,185.75	8,373.80	5,660.83	429.89	14,464.53
WA/ID Sub-Total	24,116.30	16,333.74	1,256.35	41,706.39	24,612.75	16,648.74	1,265.38	42,526.87
High Case Total	33,866.95	21,484.91	1,427.69	56,779.55	34,540.54	21,858.00	1,436.54	57,835.08
Low Case								
Klam Falls	941.07	612.55	1.95	1,555.57	944.28	614.03	1.94	1,560.25
La Grande	530.19	331.16	78.66	940.02	529.82	330.46	78.55	938.83
Medford GTN	2,759.69	1,610.47	-	4,370.16	2,769.89	1,611.64	-	4,381.53
Medford NWP	1,239.86	724.36	-	1,964.21	1,244.44	724.92	-	1,969.36
Rosburg	1,072.23	810.12	15.16	1,897.51	1,084.72	812.49	15.10	1,912.31
OR Sub-Total	6,543.04	4,088.67	95.77	10,727.48	6,573.14	4,093.54	95.59	10,762.28
Spokane Both	9,450.13	6,660.95	562.52	16,673.59	9,487.16	6,698.63	563.19	16,748.98
Spokane GTN	1,305.69	918.76	77.59	2,302.03	1,310.79	923.95	77.68	2,312.42
Spokane NWP	5,549.20	3,905.07	329.75	9,784.03	5,570.87	3,927.18	330.15	9,828.20
WA/ID Sub-Total	16,305.01	11,484.78	969.85	28,759.65	16,368.82	11,549.76	971.02	28,889.60
Low Case Total	22,848.05	15,573.45	1,065.62	39,487.13	22,941.96	15,643.30	1,066.61	39,651.88

Appendix 2.4 - C
Annual Demand Total (MDth)
 By Class (Net of DSM Savings)

Area Expected Case	2025/2026				2026/2027			
	Residential	Commercial	Firm Industrial	Total	Residential	Commercial	Firm Industrial	Total
	Klam Falls	1,210.41	718.98	1.59	1,930.98	1,232.50	728.20	1.59
La Grande	626.56	354.02	58.09	1,038.67	632.22	355.56	58.09	1,045.87
Medford GTN	3,589.93	1,878.83	-	5,468.76	3,654.17	1,902.78	-	5,556.95
Medford NWP	1,612.87	845.00	-	2,457.86	1,641.73	855.77	-	2,497.49
Rosburg	1,501.43	953.19	15.23	2,469.84	1,543.45	966.85	15.23	2,525.53
OR Sub-Total	8,541.19	4,750.01	74.91	13,366.11	8,704.06	4,809.16	74.91	13,588.13
Spokane Both	12,233.24	8,390.51	617.63	21,241.38	12,470.65	8,554.48	623.19	21,648.31
Spokane GTN	1,689.55	1,157.32	85.19	2,932.06	1,722.30	1,179.93	85.96	2,988.19
Spokane NWP	7,180.64	4,919.00	362.06	12,461.69	7,319.81	5,015.14	365.32	12,700.26
WA/ID Sub-Total	21,103.43	14,466.83	1,064.88	36,635.14	21,512.75	14,749.55	1,074.46	37,336.76
Base Case Total	29,644.61	19,216.84	1,139.79	50,001.24	30,216.81	19,558.71	1,149.36	50,924.89
High Case								
Klam Falls	1,422.14	796.85	2.15	2,221.15	1,454.71	809.94	2.15	2,266.79
La Grande	697.21	373.29	153.79	1,224.30	705.00	375.34	153.79	1,234.13
Medford GTN	4,272.44	2,090.73	-	6,363.17	4,364.14	2,124.66	-	6,488.81
Medford NWP	1,919.50	940.20	-	2,859.70	1,960.70	955.45	-	2,916.15
Rosburg	1,860.40	1,093.22	15.21	2,968.84	1,921.32	1,113.01	15.21	3,049.54
OR Sub-Total	10,171.69	5,294.29	171.16	15,637.14	10,405.88	5,378.40	171.15	15,955.42
Spokane Both	14,642.42	9,894.13	741.24	25,277.79	14,998.50	10,129.47	750.30	25,878.27
Spokane GTN	2,021.85	1,364.71	102.07	3,488.64	2,070.97	1,397.18	103.28	3,571.42
Spokane NWP	8,592.91	5,800.43	433.80	14,827.14	8,801.65	5,938.41	438.94	15,179.00
WA/ID Sub-Total	25,257.19	17,059.28	1,277.11	43,593.58	25,871.12	17,465.06	1,292.52	44,628.70
High Case Total	35,428.88	22,353.57	1,448.26	59,230.72	36,277.00	22,843.46	1,463.67	60,584.12
Low Case								
Klam Falls	952.45	617.53	1.94	1,571.92	960.26	621.25	1.93	1,583.44
La Grande	531.01	330.53	78.55	940.09	532.49	330.78	78.55	941.81
Medford GTN	2,795.13	1,620.53	-	4,415.66	2,820.67	1,630.05	-	4,450.72
Medford NWP	1,255.78	728.95	-	1,984.73	1,267.25	733.24	-	2,000.49
Rosburg	1,102.95	818.25	15.10	1,936.30	1,121.46	824.21	15.09	1,960.77
OR Sub-Total	6,637.32	4,115.80	95.58	10,848.70	6,702.13	4,139.52	95.57	10,937.22
Spokane Both	9,568.92	6,768.00	565.12	16,902.03	9,650.95	6,839.12	567.56	17,057.63
Spokane GTN	1,322.06	933.52	77.95	2,333.53	1,333.38	943.33	78.28	2,354.99
Spokane NWP	5,618.79	3,967.87	331.27	9,917.94	5,666.88	4,009.58	332.71	10,009.17
WA/ID Sub-Total	16,509.77	11,669.39	974.34	29,153.50	16,651.21	11,792.04	978.55	29,421.79
Low Case Total	23,147.10	15,785.19	1,069.92	40,002.21	23,353.34	15,931.56	1,074.12	40,359.01

Appendix 2.4 D
Peak Day Demand - 11/2007 - 10/2027 (Net of DSM Savings)
Peak Day = February 15

Gas Year	Klam Falls	La Grande	Medford GTN	Medford NWP	Rosburg	Oregon	Spokane Both	Spokane GTN	Spokane NWP	WA/ID	Total
Base											
2007-2008	10.76	9.72	26.84	12.06	12.87	72.25	152.66	21.06	89.50	263.22	335.46
2008-2009	10.97	9.82	27.42	12.32	13.19	73.71	156.11	21.54	91.53	269.18	342.89
2009-2010	11.21	9.91	28.07	12.61	13.55	75.35	159.79	22.05	93.70	275.54	350.89
2010-2011	11.48	10.01	28.71	12.90	13.94	77.04	163.58	22.57	95.94	282.09	359.14
2011-2012	11.72	10.11	29.44	13.23	14.41	78.92	167.30	23.09	98.13	288.51	367.43
2012-2013	11.95	10.23	30.13	13.54	14.85	80.69	170.87	23.58	100.23	294.69	375.38
2013-2014	12.18	10.33	30.80	13.84	15.28	82.44	174.37	24.07	102.29	300.72	383.16
2014-2015	12.43	10.46	31.51	14.16	15.76	84.31	177.81	24.55	104.32	306.68	390.99
2015-2016	12.68	10.60	32.24	14.49	16.26	86.27	181.31	25.03	106.38	312.72	398.99
2016-2017	12.94	10.72	32.98	14.82	16.76	88.22	184.82	25.52	108.45	318.79	407.01
2017-2018	13.19	10.84	33.69	15.14	17.23	90.08	188.54	26.03	110.63	325.20	415.28
2018-2019	13.42	10.95	34.39	15.45	17.70	91.91	192.32	26.55	112.85	331.72	423.63
2019-2020	13.67	11.07	35.10	15.77	18.18	93.79	196.27	27.10	115.16	338.52	432.31
2020-2021	13.90	11.17	35.77	16.08	18.63	95.55	200.33	27.66	117.55	345.54	441.09
2021-2022	14.14	11.27	36.44	16.37	19.10	97.33	204.48	28.23	119.98	352.69	450.01
2022-2023	14.38	11.36	37.10	16.67	19.56	99.07	208.73	28.82	122.47	360.01	459.08
2023-2024	14.61	11.46	37.75	16.96	20.03	100.81	212.96	29.40	124.95	367.30	468.11
2024-2025	14.86	11.55	38.39	17.25	20.51	102.56	217.22	29.99	127.44	374.65	477.21
2025-2026	15.11	11.62	39.04	17.54	20.99	104.30	221.42	30.57	129.91	381.90	486.20
2026-2027	15.35	11.72	39.66	17.82	21.47	106.02	225.59	31.14	132.35	389.09	495.11
High											
2007-2008	10.84	9.86	27.06	12.16	13.07	72.99	155.95	21.51	91.43	268.89	341.87
2008-2009	10.99	9.84	27.48	12.35	13.33	73.99	158.95	21.93	93.20	274.08	348.07
2009-2010	11.52	10.15	28.91	12.99	14.09	77.65	167.59	23.12	98.28	288.99	366.64
2010-2011	12.01	10.37	30.09	13.52	14.79	80.79	175.14	24.17	102.72	302.02	382.81
2011-2012	12.47	10.60	31.40	14.10	15.59	84.17	181.09	25.20	106.21	312.50	396.67
2012-2013	12.85	10.81	32.54	14.62	16.32	87.14	187.41	26.03	109.93	323.37	410.51
2013-2014	13.26	11.00	33.67	15.13	17.04	90.10	193.52	26.90	113.52	333.95	424.05
2014-2015	13.64	11.21	34.76	15.62	17.76	92.99	199.08	27.59	116.79	343.45	436.44
2015-2016	14.03	11.43	35.91	16.13	18.54	96.05	204.78	28.29	120.14	353.21	449.26
2016-2017	14.40	11.59	36.96	16.61	19.26	98.83	209.99	28.99	123.21	362.19	461.02
2017-2018	14.72	11.74	37.90	17.03	19.91	101.31	215.05	29.69	126.17	370.91	472.22
2018-2019	15.07	11.88	38.95	17.50	20.62	104.03	220.80	30.48	129.55	380.83	484.86
2019-2020	15.43	12.05	39.98	17.97	21.32	106.76	226.65	31.29	132.97	390.91	497.66
2020-2021	15.76	12.18	40.92	18.39	22.06	109.20	232.54	32.10	136.43	401.06	510.27
2021-2022	16.10	12.32	41.87	18.82	22.84	111.75	238.77	32.96	140.08	411.80	523.55
2022-2023	16.42	12.44	42.78	19.23	23.29	114.15	244.72	33.78	143.57	422.06	536.22
2023-2024	16.74	12.55	43.67	19.62	23.95	116.53	250.78	34.62	147.12	432.51	549.04
2024-2025	17.07	12.65	44.52	20.01	24.60	118.84	256.68	35.43	150.57	442.67	561.51
2025-2026	17.42	12.76	45.46	20.43	25.31	121.38	262.92	36.29	154.22	453.43	574.81
2026-2027	17.78	12.88	46.33	20.82	25.99	123.80	269.08	37.14	157.84	464.05	587.86
Low											
2007-2008	10.58	9.69	26.50	11.91	12.79	71.47	151.44	20.89	88.79	261.11	332.59
2008-2009	10.33	9.41	25.93	11.65	12.54	69.87	148.15	20.44	86.87	255.47	325.33
2009-2010	10.48	9.49	26.34	11.83	12.75	70.90	150.59	20.78	88.31	259.69	330.58
2010-2011	10.66	9.58	26.77	12.03	13.01	72.05	153.28	21.15	89.90	264.33	336.39
2011-2012	10.77	9.62	27.11	12.18	13.23	72.92	154.57	21.33	90.66	266.56	339.48
2012-2013	10.87	9.68	27.42	12.32	13.43	73.72	155.61	21.48	91.29	268.38	342.10
2013-2014	10.97	9.72	27.73	12.46	13.64	74.52	156.55	21.61	92.06	270.22	344.74
2014-2015	11.08	9.77	28.05	12.61	13.86	75.37	157.83	21.79	92.61	272.22	347.59
2015-2016	11.20	9.83	28.39	12.76	14.10	76.28	159.24	21.99	93.45	274.67	350.95
2016-2017	11.32	9.89	28.74	12.91	14.34	77.19	160.66	22.19	94.29	277.13	354.33
2017-2018	11.43	9.94	29.06	13.05	14.56	78.05	162.25	22.40	95.22	279.87	357.92
2018-2019	11.53	9.99	29.39	13.20	14.79	78.90	163.86	22.63	96.17	282.66	361.55
2019-2020	11.63	10.04	29.72	13.34	15.00	79.74	165.56	22.86	97.16	285.59	365.33
2020-2021	11.73	10.08	30.04	13.49	15.22	80.56	167.31	23.10	98.19	288.60	369.16
2021-2022	11.84	10.13	30.31	13.62	15.44	81.35	169.10	23.35	99.24	291.69	373.04
2022-2023	11.92	10.15	30.55	13.73	15.63	81.98	170.58	23.55	100.10	294.23	376.22
2023-2024	12.00	10.16	30.80	13.84	15.82	82.62	172.03	23.75	100.96	296.74	379.37
2024-2025	12.08	10.18	31.02	13.94	16.01	83.24	173.50	23.96	101.82	299.27	382.51
2025-2026	12.17	10.19	31.25	14.05	16.21	83.87	174.92	24.15	102.65	301.72	385.60
2026-2027	12.26	10.21	31.48	14.15	16.41	84.52	176.47	24.37	103.56	304.39	388.91

Appendix 2.4 D

Peak Day Demand - 11/2007 - 10/2027 (Net of DSM Savings)

Peak Day = December 20

Gas Year	Klam Falls	La Grande	Medford GTN	Medford NWP	Rosburg	Oregon	Spokane Both	Spokane GTN	Spokane NWP	WA/ID	Total
Base											
2007-2008	13.86	8.48	41.02	18.43	16.33	98.12	125.17	17.27	73.38	215.81	313.94
2008-2009	14.15	8.57	42.00	18.87	16.62	100.21	128.21	17.69	75.17	221.07	321.28
2009-2010	14.46	8.66	43.05	19.34	17.06	102.58	131.40	18.13	77.06	226.59	329.17
2010-2011	14.80	8.74	44.10	19.81	17.53	104.98	134.74	18.59	79.02	232.35	337.33
2011-2012	15.15	8.82	45.18	20.30	18.04	107.48	138.09	19.06	80.99	238.14	345.62
2012-2013	15.48	8.91	46.35	20.82	18.64	110.20	141.01	19.46	82.71	243.17	353.38
2013-2014	15.78	9.01	47.41	21.30	19.21	112.71	143.66	19.83	84.26	247.75	360.46
2014-2015	16.09	9.10	48.48	21.79	19.78	115.25	146.09	20.18	85.71	251.98	367.22
2015-2016	16.42	9.22	49.61	22.29	20.40	117.94	149.01	20.57	87.43	257.01	374.95
2016-2017	16.76	9.34	50.79	22.82	21.05	120.77	151.97	20.98	89.17	262.13	382.89
2017-2018	17.10	9.45	51.96	23.35	21.70	123.56	155.05	21.41	90.97	267.43	391.00
2018-2019	17.43	9.55	53.07	23.85	22.32	126.22	158.21	21.84	92.83	272.88	399.10
2019-2020	17.74	9.64	54.19	24.35	22.93	128.86	161.42	22.28	94.71	278.41	407.28
2020-2021	18.07	9.75	55.31	24.86	23.56	131.55	164.77	22.75	96.67	284.19	415.75
2021-2022	18.38	9.84	56.38	25.34	24.15	134.09	168.23	23.22	98.70	290.16	424.24
2022-2023	18.70	9.93	57.43	25.81	24.75	136.63	171.76	23.71	100.77	296.24	432.87
2023-2024	19.02	10.01	58.48	26.28	25.35	139.14	175.38	24.21	102.89	302.48	441.62
2024-2025	19.33	10.09	59.51	26.74	25.97	141.63	178.99	24.71	105.01	308.70	450.33
2025-2026	19.66	10.17	60.52	27.20	26.59	144.14	182.62	25.21	107.13	314.96	459.10
2026-2027	19.98	10.24	61.55	27.66	27.22	146.65	186.20	25.70	109.23	321.13	467.78
High											
2007-2008	13.89	8.70	41.24	18.53	16.55	98.91	127.41	17.58	74.70	219.69	318.60
2008-2009	14.09	8.69	42.00	18.87	16.70	100.36	129.90	17.92	76.16	223.98	324.34
2009-2010	14.80	8.96	44.27	19.89	17.63	105.56	136.80	18.88	80.22	235.90	341.46
2010-2011	15.41	9.15	46.19	20.75	18.47	109.98	142.94	19.72	83.83	246.49	356.47
2011-2012	16.06	9.34	48.14	21.62	19.36	114.53	147.90	20.57	86.74	255.21	369.73
2012-2013	16.61	9.51	50.07	22.50	20.35	119.05	153.45	21.30	90.00	264.75	383.80
2013-2014	17.14	9.69	51.89	23.32	21.31	123.35	158.76	22.06	93.12	273.94	397.29
2014-2015	17.63	9.84	53.55	24.06	22.18	127.25	163.42	22.64	95.86	281.92	409.18
2015-2016	18.14	10.02	55.30	24.85	23.15	131.46	168.25	23.24	98.70	290.19	421.65
2016-2017	18.62	10.19	56.99	25.61	24.09	135.50	172.57	23.82	101.24	297.64	433.14
2017-2018	19.08	10.31	58.71	26.49	24.99	139.58	176.82	24.41	103.73	304.95	441.53
2018-2019	19.55	10.46	60.22	27.06	25.91	143.21	181.53	25.06	106.49	313.08	456.29
2019-2020	20.02	10.59	61.84	27.79	26.81	147.05	186.39	25.73	109.34	321.46	468.51
2020-2021	20.48	10.73	63.41	28.49	27.70	150.81	191.17	26.39	112.15	329.70	480.51
2021-2022	20.91	10.85	64.94	29.18	28.56	154.44	196.25	27.09	115.12	338.46	492.90
2022-2023	21.36	10.97	66.39	29.83	29.41	157.96	201.25	27.78	118.05	347.08	505.04
2023-2024	21.78	11.07	67.82	30.48	30.25	161.40	206.46	28.50	121.11	356.07	517.47
2024-2025	22.19	11.16	69.16	31.08	31.09	164.68	211.50	29.19	124.06	364.75	529.43
2025-2026	22.66	11.27	70.64	31.75	32.00	168.32	216.91	29.94	127.23	374.07	542.39
2026-2027	23.13	11.36	72.08	32.39	32.91	171.87	222.08	30.65	130.26	382.98	554.85
Low											
2007-2008	13.70	8.49	40.60	18.24	16.27	97.29	124.09	17.12	72.75	213.96	311.26
2008-2009	13.37	8.25	39.72	17.84	15.88	95.05	121.43	16.75	71.20	209.38	304.43
2009-2010	13.57	8.32	40.36	18.14	16.14	96.53	123.40	17.03	72.37	212.80	309.33
2010-2011	13.80	8.40	41.07	18.46	16.45	98.17	125.62	17.33	73.67	216.62	314.79
2011-2012	13.96	8.43	41.57	18.68	16.69	99.32	126.75	17.49	74.34	218.58	317.90
2012-2013	14.10	8.47	42.11	18.92	16.98	100.58	127.75	17.63	74.94	220.32	320.89
2013-2014	14.24	8.51	42.61	19.14	17.24	101.74	128.66	17.76	75.63	222.05	323.79
2014-2015	14.38	8.55	43.10	19.37	17.51	102.91	129.79	17.92	76.15	223.86	326.76
2015-2016	14.53	8.60	43.62	19.60	17.81	104.16	130.99	18.08	76.86	225.94	330.09
2016-2017	14.68	8.65	44.17	19.85	18.12	105.47	132.21	18.26	77.59	228.06	333.53
2017-2018	14.84	8.70	44.72	20.08	18.43	106.77	133.55	18.44	78.37	230.36	337.13
2018-2019	14.98	8.75	45.24	20.31	18.72	108.00	134.91	18.63	79.17	232.71	340.72
2019-2020	15.11	8.79	45.76	20.54	19.00	109.20	136.31	18.82	79.99	235.12	344.31
2020-2021	15.25	8.83	46.28	20.78	19.30	110.44	137.78	19.02	80.85	237.65	348.09
2021-2022	15.39	8.87	46.73	21.00	19.58	111.57	139.29	19.23	81.73	240.25	351.82
2022-2023	15.50	8.89	47.11	21.17	19.83	112.50	140.57	19.41	82.48	242.46	354.96
2023-2024	15.61	8.91	47.50	21.35	20.07	113.43	141.80	19.58	83.20	244.58	358.01
2024-2025	15.71	8.92	47.86	21.51	20.31	114.31	143.10	19.76	83.97	246.83	361.14
2025-2026	15.83	8.94	48.21	21.67	20.57	115.22	144.40	19.94	84.73	249.07	364.29
2026-2027	15.94	8.95	48.59	21.84	20.83	116.17	145.69	20.11	85.49	251.29	367.46

General Assumptions

Appendix 6.1

Appendix 6.1 – General Assumptions

Utility Natural Gas Escalation Rates*

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
0.8%	9.0%	0.0%	-3.2%	-1.4%	-1.9%	0.2%	0.7%	2.1%	2.6%
2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
3.4%	3.2%	2.3%	2.2%	1.7%	1.7%	1.7%	1.7%	1.7%	1.4%

* Source: Global Insights, Inc 4/26/2007 Forecast.

GDP Inflation Rates*

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1.89%	1.99%	2.07%	2.01%	1.98%	2.01%	1.97%	1.88%	1.85%	1.85%
2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
1.88%	1.92%	1.95%	1.92%	1.96%	1.97%	1.99%	2.00%	1.99%	2.02%

* Source: Global Insights, Inc 4/26/2007 Forecast.

Real Discount Rate = 4.18% - Weighted Average after Tax Cost of Capital (jurisdictionally weighted).

AECO, Sumas, Rockies Prices – See Attached

NYMEX Prices – Were closing 5/9/2007 prices. More current NYMEX prices (11/26/2007) were analyzed and determined that the change was not significant enough to warrant updating.

Other Pricing:

Station 2 – Sumas minus \$.4172

Malin = AECO plus \$.2123

Spokane = AECO plus \$.2967

Consultant Price Assumptions

	Consultant 1			Consultant 2			AEO 2007		
	2008	2010	2015	2008	2010	2015	2008	2010	2015
Forecasted HH Price (2007 \$)	\$ 8.07	\$ 7.06	\$ 6.73	\$ 7.83	\$ 6.58	\$ 6.18	\$ 8.31	\$ 6.62	\$ 5.75
US Economic Growth (% GDP)	3.50%	3.20%	3.20%	3.00%	3.00%	3.00%	3.05%	3.01%	3.00%
Total US Gas Demand bcf/d)	63.41	65.86	68.27	60.61	62.06	67.8	63.95	65.8	69.38
EG Demand (bcf/d)	18.6	19.81	21.54	17.93	19.36	25.4	17.44	17.48	19.48
World Oil Prices (2007\$)	\$ 65.53	\$ 61.17	\$ 63.93	\$ 55.32	\$ 52.62	\$ 46.87	\$ 67.59	\$ 60.61	\$ 52.59
US Gas Prod. (bcf/d)	53.27	52.45	49.77	48.32	47.78	46.5	53.22	53.21	53.89
LNG Imports (bcf/d)	2.76	5.82	10.28	4.14	6.84	11.8	3.04	4.97	8.19
Net (Canada & Mexico) Imports (bcf/d)	7.47	7.6	8.22	7.78	7.39	9	7.69	7.62	7.30
Mackenzie Delta Pipeline		1 bcf/d in service 2014			In service 2012			1.2 bcf/d in service 2012	
Alaska Pipeline			4 bcf/d in service 2020			In service 2017			3.9 bcf/d in service 2018

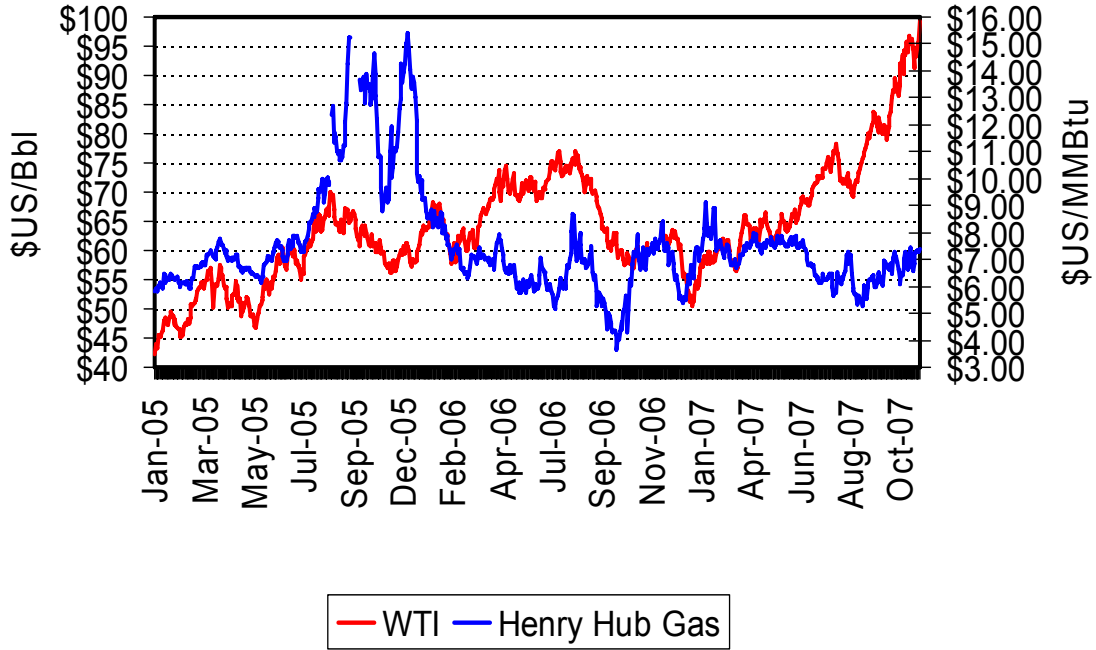
Pipeline Rates

Northwest Pipeline – currently settled rates with pipeline rate increases every five years at GDP

GTN – currently filed rates with pipeline rate increases every five years at GDP

Canadian Pipelines – current rates with pipeline rate increases three years at GDP

Natural Gas and WTI Oil Price Relationship:



Heating Degree Days – See Attached

Appendix 6.1
 La Grande Heating Degree Days
 Source: NOAA with added peak days

Day of Month	January	February	March	April	May	June	July	August	September	October	November	December
1	35	22	17	23	28	22	1	0	0	10	34	28
2	39	25	27	22	26	9	0	0	0	10	22	24
3	41	24	24	23	20	12	0	0	0	11	17	28
4	52	21	27	18	22	18	0	0	0	13	27	31
5	66	29	24	14	22	15	0	4	5	14	28	37
6	56	27	31	18	17	3	1	1	3	11	21	33
7	39	26	24	11	20	0	2	3	0	5	23	35
8	30	25	24	11	14	0	0	0	0	3	25	33
9	25	28	18	11	13	0	0	0	7	14	30	31
10	24	35	19	14	11	4	0	0	11	17	25	33
11	34	31	22	22	3	8	0	0	18	18	24	49
12	30	28	29	22	0	13	0	0	15	14	21	54
13	27	61	23	24	0	8	0	0	9	12	14	37
14	31	68	22	26	11	1	0	0	6	13	25	29
15	33	74	31	14	14	0	0	0	4	9	33	30
16	33	61	32	21	6	0	0	5	14	7	30	31
17	34	60	28	19	9	0	5	0	6	11	32	33
18	35	50	29	22	15	0	0	0	12	19	26	51
19	33	49	31	22	14	0	0	0	3	15	30	58
20	34	42	28	12	11	1	8	8	7	19	29	64
21	31	32	30	6	6	3	9	3	7	21	26	58
22	35	24	26	0	0	8	0	1	16	24	31	51
23	34	22	22	23	0	2	0	5	12	21	31	26
24	35	29	16	26	4	11	0	5	8	24	29	31
25	34	30	21	19	2	4	4	8	17	28	33	35
26	34	23	18	25	5	1	1	1	10	23	34	34
27	32	15	18	18	0	0	4	5	7	18	31	35
28	27	18	20	21	4	0	7	0	14	19	33	40
29	24	0	30	23	15	0	0	0	6	26	26	34
30	24	0	31	28	18	4	0	0	0	20	30	34
31	31	0	24	0	14	0	0	4	0	24	0	36
	1072	979	766	558	344	147	42	53	217	493	820	1163
												6654

Appendix 6.1
 Roseburg Heating Degree Days
 Source: NOAA with added peak days

Day of Month	January	February	March	April	May	June	July	August	September	October	November	December
1	25	25	11	13	7	5	6	0	0	1	0	25
2	18	27	9	8	2	5	0	0	5	5	17	28
3	23	23	15	6	14	8	0	0	2	10	19	28
4	15	18	25	11	15	11	0	0	0	8	15	23
5	15	11	24	11	16	9	0	0	0	5	20	24
6	19	23	22	9	12	7	0	0	0	0	19	21
7	23	25	18	13	15	7	0	0	0	0	16	22
8	22	23	24	23	15	3	0	3	0	5	13	24
9	24	26	16	18	13	0	0	0	0	8	14	27
10	27	27	23	11	9	0	0	0	0	11	14	28
11	22	25	17	11	13	6	0	0	0	11	11	25
12	21	20	14	7	5	8	0	0	1	14	15	27
13	20	32	16	17	0	4	1	0	1	6	12	22
14	23	37	13	20	6	2	0	0	0	9	13	18
15	24	42	11	20	13	0	0	0	0	9	17	20
16	27	34	12	17	14	0	0	0	0	6	18	27
17	29	28	13	19	16	0	3	0	5	6	17	25
18	24	16	14	20	15	0	0	0	8	7	16	40
19	22	14	11	19	7	0	0	0	11	2	17	53
20	25	12	4	21	5	0	0	0	8	10	26	55
21	18	15	14	11	0	0	0	0	8	15	23	46
22	19	14	18	8	0	0	1	4	3	17	14	48
23	20	26	15	0	0	0	0	4	2	13	14	17
24	24	21	19	1	0	0	0	1	0	10	13	19
25	22	17	22	7	7	0	0	0	5	10	12	20
26	22	11	23	11	1	0	0	0	4	9	18	22
27	27	10	19	13	0	0	0	0	0	9	21	18
28	26	21	20	11	0	7	3	0	0	11	28	23
29	23	0	17	10	0	3	3	0	6	14	25	22
30	24	0	9	7	5	2	2	0	5	17	29	20
31	26	0	7	0	1	0	0	0	0	13	0	23
699	699	623	495	373	226	87	19	12	75	270	521	840
												4240

**Appendix 6.1
Mid Price Case
Real 2007\$**

	Nymex		AECO		Summas		Rockies		Seasonal Shape																	
	86.0%		87.6%		80.5%																					
Year	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December		
2008	7.34	7.34	7.47	6.87																						
2009	7.96	6.85	6.97	6.41																						
2010	7.42	6.38	6.50	5.97																						
2011	6.82	5.87	5.97	5.49																						
2012	6.53	5.61	5.72	5.25																						
2013	6.38	5.49	5.59	5.14																						
2014	6.52	5.61	5.71	5.25																						
2015	6.73	5.79	5.90	5.42																						
2016	6.77	5.82	5.93	5.45																						
2017	6.80	5.85	5.96	5.47																						
2018	6.83	5.87	5.98	5.50																						
2019	7.01	6.03	6.14	5.64																						
2020	7.18	6.17	6.29	5.78																						
2021	7.34	6.31	6.43	5.91																						
2022	7.47	6.42	6.54	6.01																						
2023	7.59	6.53	6.65	6.11																						
2024	7.72	6.64	6.77	6.22																						
2025	7.86	6.76	6.88	6.33																						
2026	8.00	6.88	7.00	6.44																						
2027	8.11	6.97	7.10	6.53																						
AECO																										
2008	7.34	8.30	8.29	8.08	6.85	6.74	6.80	6.87	6.92	6.95	7.04	7.42	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80
2009	6.85	7.75	7.73	7.54	6.39	6.29	6.34	6.41	6.46	6.49	6.57	6.93	7.28	7.28	7.28	7.28	7.28	7.28	7.28	7.28	7.28	7.28	7.28	7.28	7.28	7.28
2010	6.38	7.22	7.21	7.03	5.95	5.86	5.91	5.97	6.02	6.05	6.12	6.46	6.78	6.78	6.78	6.78	6.78	6.78	6.78	6.78	6.78	6.78	6.78	6.78	6.78	6.78
2011	5.87	6.64	6.63	6.46	5.47	5.38	5.44	5.49	5.53	5.56	5.63	5.93	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23
2012	5.61	6.35	6.34	6.18	5.24	5.15	5.20	5.25	5.29	5.32	5.38	5.68	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96
2013	5.49	6.21	6.20	6.05	5.12	5.04	5.09	5.14	5.18	5.20	5.27	5.55	5.84	5.84	5.84	5.84	5.84	5.84	5.84	5.84	5.84	5.84	5.84	5.84	5.84	5.84
2014	5.61	6.34	6.33	6.18	5.23	5.15	5.20	5.25	5.29	5.31	5.38	5.67	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96
2015	5.79	6.55	6.54	6.38	5.40	5.32	5.37	5.42	5.46	5.49	5.55	5.86	6.15	6.15	6.15	6.15	6.15	6.15	6.15	6.15	6.15	6.15	6.15	6.15	6.15	6.15
2016	5.82	6.59	6.58	6.41	5.43	5.34	5.39	5.45	5.49	5.52	5.58	5.89	6.19	6.19	6.19	6.19	6.19	6.19	6.19	6.19	6.19	6.19	6.19	6.19	6.19	6.19
2017	5.85	6.62	6.61	6.44	5.46	5.37	5.42	5.47	5.51	5.54	5.61	5.91	6.22	6.22	6.22	6.22	6.22	6.22	6.22	6.22	6.22	6.22	6.22	6.22	6.22	6.22
2018	5.87	6.64	6.63	6.47	5.48	5.39	5.44	5.50	5.54	5.56	5.63	5.94	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24
2019	6.03	6.82	6.81	6.64	5.62	5.53	5.58	5.64	5.68	5.71	5.78	6.10	6.41	6.41	6.41	6.41	6.41	6.41	6.41	6.41	6.41	6.41	6.41	6.41	6.41	6.41
2020	6.17	6.99	6.97	6.80	5.76	5.67	5.72	5.78	5.82	5.85	5.92	6.24	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56
2021	6.31	7.14	7.13	6.95	5.89	5.79	5.85	5.91	5.95	5.98	6.05	6.38	6.71	6.71	6.71	6.71	6.71	6.71	6.71	6.71	6.71	6.71	6.71	6.71	6.71	6.71
2022	6.42	7.27	7.25	7.07	5.99	5.90	5.95	6.01	6.06	6.09	6.16	6.50	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83
2023	6.53	7.39	7.38	7.19	6.09	6.00	6.05	6.11	6.16	6.19	6.26	6.61	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94
2024	6.64	7.52	7.50	7.31	6.20	6.10	6.15	6.22	6.26	6.30	6.37	6.72	7.06	7.06	7.06	7.06	7.06	7.06	7.06	7.06	7.06	7.06	7.06	7.06	7.06	7.06
2025	6.76	7.65	7.63	7.44	6.31	6.20	6.26	6.33	6.37	6.41	6.48	6.84	7.18	7.18	7.18	7.18	7.18	7.18	7.18	7.18	7.18	7.18	7.18	7.18	7.18	7.18
2026	6.88	7.78	7.77	7.57	6.42	6.31	6.37	6.44	6.48	6.52	6.60	6.96	7.31	7.31	7.31	7.31	7.31	7.31	7.31	7.31	7.31	7.31	7.31	7.31	7.31	7.31
2027	6.97	7.89	7.87	7.68	6.50	6.40	6.46	6.53	6.57	6.61	6.69	7.05	7.40	7.40	7.40	7.40	7.40	7.40	7.40	7.40	7.40	7.40	7.40	7.40	7.40	7.40

**Appendix 6.1
Mid Price Case**

Year	113%	113%	113%	110%	93%	92%	93%	94%	94%	94%	95%	96%	101%	106%
	January	February	March	April	May	June	July	August	September	October	November	December	January	December
2008	7.47	8.46	8.44	8.23	6.97	6.86	6.93	7.00	7.05	7.08	7.17	7.17	7.56	7.94
2009	6.97	7.89	7.88	7.68	6.51	6.40	6.46	6.53	6.58	6.61	6.69	6.69	7.05	7.41
2010	6.50	7.36	7.34	7.16	6.07	5.97	6.02	6.09	6.13	6.16	6.24	6.24	6.58	6.91
2011	5.97	6.76	6.75	6.58	5.57	5.48	5.54	5.59	5.63	5.66	5.73	5.73	6.04	6.35
2012	5.72	6.47	6.46	6.30	5.33	5.25	5.30	5.35	5.39	5.42	5.48	5.48	5.78	6.08
2013	5.59	6.33	6.32	6.16	5.22	5.13	5.18	5.24	5.27	5.30	5.36	5.36	5.66	5.94
2014	5.71	6.46	6.45	6.29	5.33	5.24	5.29	5.35	5.39	5.41	5.48	5.48	5.78	6.07
2015	5.90	6.67	6.66	6.50	5.50	5.41	5.47	5.52	5.56	5.59	5.66	5.66	5.97	6.27
2016	5.93	6.71	6.70	6.53	5.53	5.44	5.49	5.55	5.59	5.62	5.69	5.69	6.00	6.30
2017	5.96	6.74	6.73	6.56	5.56	5.47	5.52	5.58	5.62	5.65	5.71	5.71	6.02	6.33
2018	5.98	6.77	6.76	6.59	5.58	5.49	5.54	5.60	5.64	5.67	5.74	5.74	6.05	6.36
2019	6.14	6.95	6.93	6.76	5.73	5.64	5.69	5.75	5.79	5.82	5.89	5.89	6.21	6.53
2020	6.29	7.12	7.10	6.93	5.87	5.77	5.83	5.89	5.93	5.96	6.03	6.03	6.36	6.68
2021	6.43	7.28	7.26	7.08	6.00	5.90	5.96	6.02	6.06	6.09	6.17	6.17	6.50	6.83
2022	6.54	7.40	7.39	7.20	6.10	6.00	6.06	6.12	6.17	6.20	6.27	6.27	6.62	6.95
2023	6.65	7.53	7.51	7.33	6.21	6.11	6.16	6.23	6.27	6.31	6.38	6.38	6.73	7.07
2024	6.77	7.66	7.64	7.45	6.31	6.21	6.27	6.33	6.38	6.41	6.49	6.49	6.84	7.19
2025	6.88	7.79	7.78	7.58	6.42	6.32	6.38	6.44	6.49	6.52	6.60	6.60	6.96	7.32
2026	7.00	7.93	7.91	7.71	6.54	6.43	6.49	6.56	6.61	6.64	6.72	6.72	7.08	7.45
2027	7.10	8.03	8.02	7.82	6.63	6.52	6.58	6.65	6.70	6.73	6.81	6.81	7.16	7.53
Rockies	113%	113%	113%	110%	93%	92%	93%	94%	94%	95%	96%	101%	106%	
	January	February	March	April	May	June	July	August	September	October	November	December	January	December
2008	6.87	7.77	7.76	7.56	6.41	6.30	6.36	6.43	6.48	6.51	6.59	6.59	6.95	7.30
2009	6.41	7.25	7.24	7.06	5.98	5.88	5.94	6.00	6.04	6.07	6.15	6.15	6.48	6.81
2010	5.97	6.76	6.75	6.58	5.57	5.48	5.54	5.59	5.63	5.66	5.73	5.73	6.04	6.35
2011	5.49	6.21	6.20	6.05	5.12	5.04	5.09	5.14	5.18	5.20	5.27	5.27	5.55	5.84
2012	5.25	5.94	5.93	5.78	4.90	4.82	4.87	4.92	4.95	4.98	5.04	5.04	5.31	5.58
2013	5.14	5.82	5.81	5.66	4.80	4.72	4.76	4.81	4.85	4.87	4.93	4.93	5.20	5.46
2014	5.25	5.94	5.93	5.78	4.90	4.82	4.86	4.91	4.95	4.97	5.03	5.03	5.31	5.58
2015	5.42	6.13	6.12	5.97	5.06	4.98	5.02	5.07	5.11	5.14	5.20	5.20	5.48	5.76
2016	5.45	6.16	6.15	6.00	5.08	5.00	5.05	5.10	5.14	5.16	5.23	5.23	5.51	5.79
2017	5.47	6.19	6.18	6.03	5.11	5.02	5.07	5.12	5.16	5.19	5.25	5.25	5.54	5.82
2018	5.50	6.22	6.21	6.05	5.13	5.04	5.09	5.14	5.18	5.21	5.27	5.27	5.56	5.84
2019	5.64	6.38	6.37	6.21	5.26	5.18	5.23	5.28	5.32	5.35	5.41	5.41	5.71	6.00
2020	5.78	6.54	6.53	6.36	5.39	5.31	5.36	5.41	5.45	5.48	5.54	5.54	5.85	6.14
2021	5.91	6.69	6.67	6.51	5.51	5.42	5.48	5.53	5.57	5.60	5.67	5.67	5.98	6.28
2022	6.01	6.80	6.79	6.62	5.61	5.52	5.57	5.63	5.67	5.70	5.77	5.77	6.08	6.39
2023	6.11	6.92	6.91	6.73	5.70	5.61	5.66	5.72	5.76	5.79	5.86	5.86	6.18	6.50
2024	6.22	7.03	7.02	6.85	5.80	5.71	5.76	5.82	5.86	5.89	5.96	5.96	6.29	6.61
2025	6.33	7.16	7.15	6.97	5.90	5.81	5.86	5.92	5.97	6.00	6.07	6.07	6.40	6.72
2026	6.44	7.28	7.27	7.09	6.01	5.91	5.96	6.03	6.07	6.10	6.17	6.17	6.51	6.84
2027	6.53	7.38	7.37	7.19	6.09	5.99	6.05	6.11	6.15	6.19	6.26	6.26	6.60	6.93

**Appendix 6.1
High Price Case
Real 2007\$**

	Nymex		AECO		Sumas		Rockies		Seasonal Shape			
	86.0%	87.6%	86.0%	87.6%	80.5%	80.5%	80.5%	80.5%				
Year	January	February	March	April	May	June	July	August	September	October	November	December
2008	9.00	7.74	7.88	7.24								
2009	8.67	7.46	7.60	6.98					113%			
2010	8.27	7.11	7.25	6.66					113%			
2011	8.27	7.11	7.25	6.66					110%			
2012	8.27	7.11	7.25	6.66					93%			
2013	8.27	7.11	7.25	6.66					92%			
2014	8.27	7.11	7.25	6.66					93%			
2015	8.27	7.11	7.25	6.66					94%			
2016	8.27	7.11	7.25	6.66					94%			
2017	8.27	7.11	7.25	6.66					95%			
2018	8.27	7.11	7.25	6.66					96%			
2019	8.27	7.11	7.25	6.66					101%			
2020	8.27	7.11	7.25	6.66					106%			
2021	8.41	7.24	7.37	6.77								
2022	8.56	7.36	7.50	6.89								
2023	8.70	7.48	7.62	7.01								
2024	8.85	7.62	7.76	7.13								
2025	9.01	7.75	7.89	7.25								
2026	9.13	7.86	8.00	7.35								
2027	9.26	7.96	8.11	7.45								
AECO												
2008	7.74	8.75	8.74	7.22	7.10	7.17	7.24	7.29	7.33	7.42	7.82	8.22
2009	7.46	8.44	8.43	6.96	6.85	6.91	6.98	7.03	7.07	7.16	7.54	7.93
2010	7.11	8.05	8.03	7.83	6.64	6.53	6.66	6.71	6.74	6.82	7.19	7.56
2011	7.11	8.05	8.03	7.83	6.64	6.53	6.66	6.71	6.74	6.82	7.19	7.56
2012	7.11	8.05	8.03	7.83	6.64	6.53	6.66	6.71	6.74	6.82	7.19	7.56
2013	7.11	8.05	8.03	7.83	6.64	6.53	6.66	6.71	6.74	6.82	7.19	7.56
2014	7.11	8.05	8.03	7.83	6.64	6.53	6.66	6.71	6.74	6.82	7.19	7.56
2015	7.11	8.05	8.03	7.83	6.64	6.53	6.66	6.71	6.74	6.82	7.19	7.56
2016	7.11	8.05	8.03	7.83	6.64	6.53	6.66	6.71	6.74	6.82	7.19	7.56
2017	7.11	8.05	8.03	7.83	6.64	6.53	6.66	6.71	6.74	6.82	7.19	7.56
2018	7.11	8.05	8.03	7.83	6.64	6.53	6.66	6.71	6.74	6.82	7.19	7.56
2019	7.11	8.05	8.03	7.83	6.64	6.53	6.66	6.71	6.74	6.82	7.19	7.56
2020	7.11	8.05	8.03	7.83	6.64	6.53	6.66	6.71	6.74	6.82	7.19	7.56
2021	7.24	8.19	8.17	7.97	6.75	6.64	6.77	6.82	6.86	6.94	7.32	7.69
2022	7.36	8.33	8.31	8.10	6.87	6.75	6.89	6.94	6.97	7.06	7.44	7.82
2023	7.48	8.47	8.45	8.24	6.98	6.87	7.01	7.06	7.09	7.18	7.57	7.95
2024	7.62	8.62	8.60	8.39	7.10	6.99	7.13	7.18	7.22	7.30	7.70	8.09
2025	7.75	8.77	8.75	8.53	7.23	7.11	7.25	7.31	7.34	7.43	7.84	8.24
2026	7.86	8.89	8.87	8.65	7.33	7.21	7.35	7.41	7.45	7.53	7.94	8.35
2027	7.96	9.01	8.99	8.77	7.43	7.31	7.45	7.51	7.55	7.64		

**Appendix 6.1
High Price Case**

	113%	113%	113%	110%	93%	92%	93%	94%	94%	94%	95%	96%	101%	106%
	January	February	March	April	May	June	July	August	September	October	November	December	November	December
Sumas	113%	113%	110%	93%	92%	93%	94%	94%	95%	96%	101%	106%	101%	106%
2008	7.88	8.92	8.68	7.35	7.23	7.30	7.38	7.43	7.47	7.56	7.97	8.38	7.97	8.38
2009	7.60	8.60	8.37	7.09	6.97	7.04	7.11	7.17	7.20	7.29	7.69	8.08	7.69	8.08
2010	7.25	8.20	8.18	7.98	6.76	6.65	6.78	6.83	6.87	6.95	7.33	7.70	7.33	7.70
2011	7.25	8.20	8.18	7.98	6.76	6.65	6.78	6.83	6.87	6.95	7.33	7.70	7.33	7.70
2012	7.25	8.20	8.18	7.98	6.76	6.65	6.78	6.83	6.87	6.95	7.33	7.70	7.33	7.70
2013	7.25	8.20	8.18	7.98	6.76	6.65	6.78	6.83	6.87	6.95	7.33	7.70	7.33	7.70
2014	7.25	8.20	8.18	7.98	6.76	6.65	6.78	6.83	6.87	6.95	7.33	7.70	7.33	7.70
2015	7.25	8.20	8.18	7.98	6.76	6.65	6.78	6.83	6.87	6.95	7.33	7.70	7.33	7.70
2016	7.25	8.20	8.18	7.98	6.76	6.65	6.78	6.83	6.87	6.95	7.33	7.70	7.33	7.70
2017	7.25	8.20	8.18	7.98	6.76	6.65	6.78	6.83	6.87	6.95	7.33	7.70	7.33	7.70
2018	7.25	8.20	8.18	7.98	6.76	6.65	6.78	6.83	6.87	6.95	7.33	7.70	7.33	7.70
2019	7.25	8.20	8.18	7.98	6.76	6.65	6.78	6.83	6.87	6.95	7.33	7.70	7.33	7.70
2020	7.25	8.20	8.18	7.98	6.76	6.65	6.78	6.83	6.87	6.95	7.33	7.70	7.33	7.70
2021	7.37	8.34	8.33	8.12	6.88	6.77	6.83	6.90	6.95	7.07	7.46	7.83	7.46	7.83
2022	7.50	8.48	8.47	8.25	6.99	6.88	7.02	7.07	7.10	7.19	7.58	7.97	7.19	7.58
2023	7.62	8.63	8.61	8.40	7.11	7.00	7.14	7.19	7.23	7.31	7.71	8.10	7.31	7.71
2024	7.76	8.78	8.76	8.54	7.24	7.12	7.26	7.31	7.35	7.44	7.85	8.24	7.44	7.85
2025	7.89	8.93	8.91	8.69	7.36	7.24	7.39	7.44	7.48	7.57	7.98	8.39	7.57	7.98
2026	8.00	9.05	9.04	8.81	7.46	7.34	7.49	7.55	7.58	7.67	8.09	8.50	7.67	8.09
2027	8.11	9.18	9.16	8.93	7.57	7.44	7.59	7.65	7.69	7.78	8.19	8.60	7.78	8.19
Rockies	113%	113%	110%	93%	92%	93%	94%	94%	95%	96%	101%	106%	101%	106%
2008	7.24	8.19	7.97	6.76	6.65	6.71	6.78	6.83	6.86	6.95	7.32	7.70	7.32	7.70
2009	6.98	7.90	7.69	6.51	6.41	6.47	6.54	6.58	6.62	6.70	7.06	7.42	7.06	7.42
2010	6.66	7.53	7.33	6.21	6.11	6.17	6.23	6.28	6.31	6.39	6.73	7.08	6.39	6.73
2011	6.66	7.53	7.33	6.21	6.11	6.17	6.23	6.28	6.31	6.39	6.73	7.08	6.39	6.73
2012	6.66	7.53	7.33	6.21	6.11	6.17	6.23	6.28	6.31	6.39	6.73	7.08	6.39	6.73
2013	6.66	7.53	7.33	6.21	6.11	6.17	6.23	6.28	6.31	6.39	6.73	7.08	6.39	6.73
2014	6.66	7.53	7.33	6.21	6.11	6.17	6.23	6.28	6.31	6.39	6.73	7.08	6.39	6.73
2015	6.66	7.53	7.33	6.21	6.11	6.17	6.23	6.28	6.31	6.39	6.73	7.08	6.39	6.73
2016	6.66	7.53	7.33	6.21	6.11	6.17	6.23	6.28	6.31	6.39	6.73	7.08	6.39	6.73
2017	6.66	7.53	7.33	6.21	6.11	6.17	6.23	6.28	6.31	6.39	6.73	7.08	6.39	6.73
2018	6.66	7.53	7.33	6.21	6.11	6.17	6.23	6.28	6.31	6.39	6.73	7.08	6.39	6.73
2019	6.66	7.53	7.33	6.21	6.11	6.17	6.23	6.28	6.31	6.39	6.73	7.08	6.39	6.73
2020	6.66	7.53	7.33	6.21	6.11	6.17	6.23	6.28	6.31	6.39	6.73	7.08	6.39	6.73
2021	6.77	7.66	7.65	7.46	6.32	6.22	6.34	6.39	6.42	6.50	6.85	7.20	6.50	6.85
2022	6.89	7.79	7.78	7.59	6.43	6.32	6.45	6.50	6.53	6.61	6.97	7.32	6.61	6.97
2023	7.01	7.93	7.91	7.71	6.54	6.43	6.49	6.56	6.61	6.74	7.09	7.45	6.74	7.09
2024	7.13	8.06	8.05	7.85	6.65	6.54	6.60	6.67	6.76	6.84	7.21	7.58	6.84	7.21
2025	7.25	8.21	8.19	7.99	6.77	6.66	6.72	6.79	6.84	6.87	7.34	7.71	6.87	7.34
2026	7.35	8.32	8.31	8.10	6.86	6.75	6.81	6.88	6.93	6.97	7.44	7.82	6.97	7.44
2027	7.45	8.43	8.42	8.21	6.95	6.84	6.91	6.98	7.03	7.06	7.53	7.91	7.06	7.53

**Appendix 6.1
Low Price Case**

Real 2007\$	Nymex	AECO	86.0%	87.6%	80.5%
			Sumas	Rockies	Seasonal Shape
2008	8.07	6.94	7.07	6.50	January 113%
2009	7.01	6.03	6.14	5.65	February 113%
2010	6.60	5.68	5.78	5.31	March 110%
2011	6.25	5.38	5.48	5.03	April 93%
2012	6.11	5.25	5.35	4.92	May 92%
2013	5.96	5.12	5.22	4.80	June 93%
2014	5.98	5.14	5.24	4.81	July 94%
2015	5.97	5.13	5.23	4.80	August 94%
2016	6.09	5.24	5.34	4.90	September 95%
2017	6.28	5.40	5.50	5.06	October 96%
2018	6.34	5.46	5.56	5.11	November 101%
2019	6.42	5.52	5.62	5.17	December 106%
2020	6.55	5.63	5.73	5.27	
2021	6.62	5.70	5.80	5.33	
2022	6.76	5.81	5.92	5.44	
2023	6.89	5.93	6.04	5.55	
2024	7.04	6.06	6.17	5.67	
2025	7.11	6.11	6.22	5.72	
2026	7.19	6.18	6.30	5.79	
2027	7.29	6.27	6.38	5.87	

AECO	113%	113%	110%	93%	93%	94%	94%	95%	96%	101%	106%	
	January	February	March	April	May	June	July	August	September	October	November	December
2008	6.94	7.85	7.84	7.64	6.48	6.37	6.43	6.50	6.55	6.58	6.66	7.38
2009	6.03	6.82	6.81	6.64	5.63	5.54	5.59	5.65	5.69	5.72	5.79	6.10
2010	5.68	6.42	6.41	6.25	5.30	5.21	5.26	5.31	5.35	5.38	5.44	5.74
2011	5.38	6.08	6.07	5.92	5.02	4.94	4.98	5.03	5.07	5.10	5.16	5.44
2012	5.25	5.94	5.93	5.78	4.90	4.82	4.87	4.92	4.95	4.98	5.04	5.31
2013	5.12	5.80	5.79	5.64	4.78	4.70	4.75	4.80	4.83	4.86	4.91	5.18
2014	5.14	5.82	5.81	5.66	4.80	4.72	4.77	4.81	4.85	4.88	4.93	5.20
2015	5.13	5.81	5.80	5.65	4.79	4.71	4.76	4.80	4.84	4.86	4.92	5.19
2016	5.24	5.93	5.92	5.77	4.89	4.81	4.85	4.90	4.94	4.96	5.02	5.30
2017	5.40	6.11	6.10	5.95	5.04	4.96	5.01	5.06	5.10	5.12	5.18	5.47
2018	5.46	6.17	6.16	6.01	5.09	5.01	5.06	5.11	5.14	5.17	5.23	5.52
2019	5.52	6.25	6.24	6.08	5.15	5.07	5.12	5.17	5.21	5.23	5.30	5.58
2020	5.63	6.37	6.36	6.20	5.25	5.17	5.22	5.27	5.31	5.34	5.40	5.69
2021	5.70	6.45	6.44	6.27	5.32	5.23	5.28	5.33	5.37	5.40	5.46	5.76
2022	5.81	6.58	6.57	6.40	5.42	5.34	5.39	5.44	5.48	5.51	5.58	5.88
2023	5.93	6.71	6.70	6.53	5.53	5.44	5.49	5.55	5.59	5.62	5.69	6.00
2024	6.06	6.85	6.84	6.67	5.65	5.56	5.61	5.67	5.71	5.74	5.81	6.13
2025	6.11	6.91	6.90	6.73	5.70	5.61	5.66	5.72	5.76	5.79	5.86	6.18
2026	6.18	6.99	6.98	6.81	5.77	5.67	5.73	5.79	5.83	5.86	5.93	6.25
2027	6.27	7.09	7.08	6.90	5.85	5.75	5.81	5.87	5.91	5.94	6.01	6.30

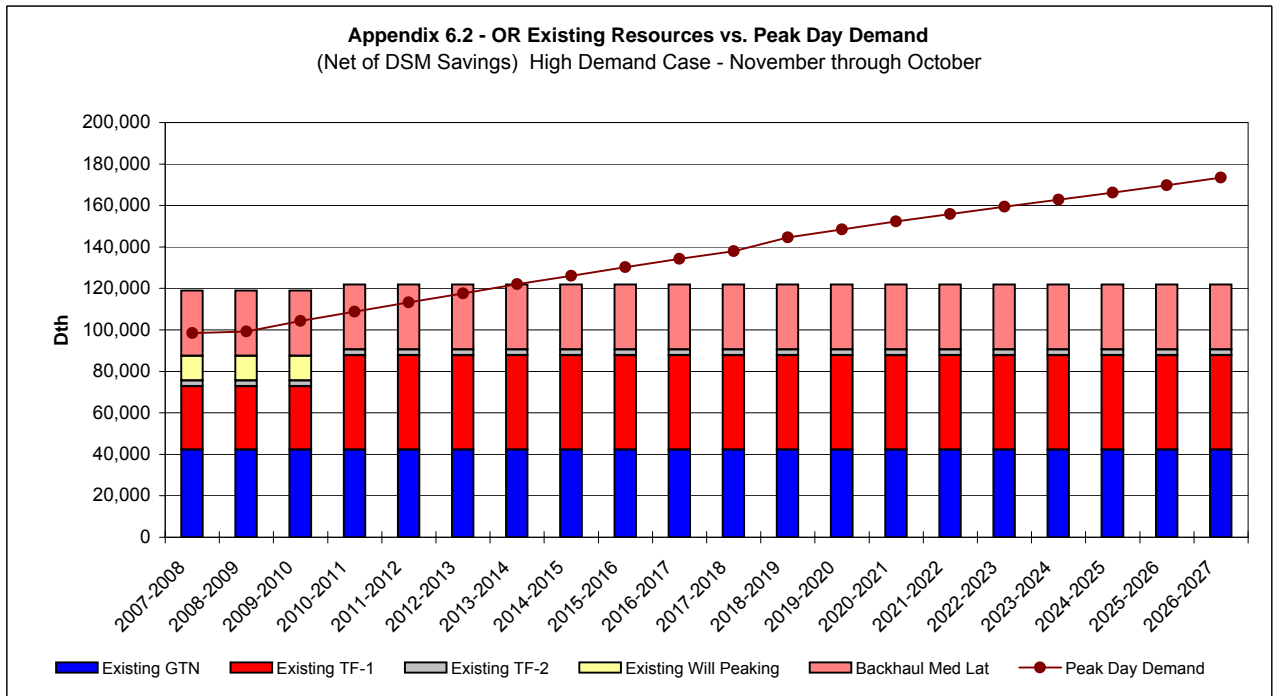
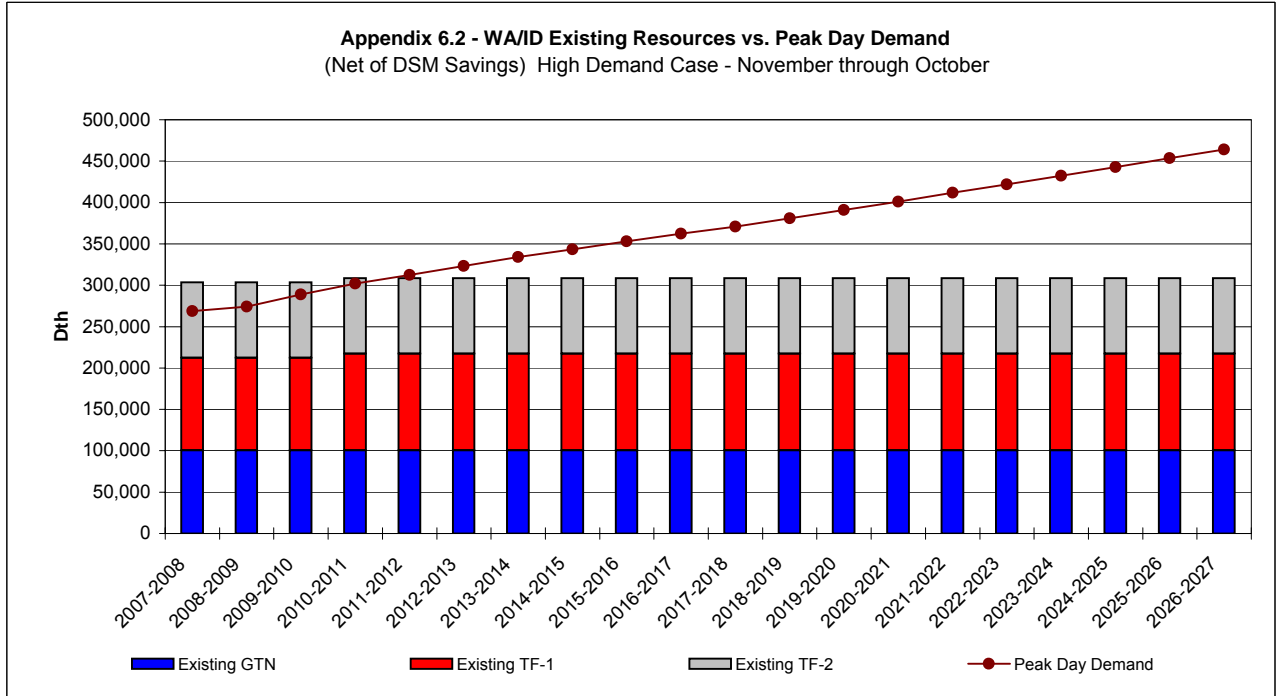
**Appendix 6.1
Low Price Case**

Sumas	113% January	113% February	113% March	110% April	93% May	92% June	93% July	94% August	94% September	95% October	96% November	101% December	106% December
2008	7.07	8.00	7.99	7.79	6.60	6.49	6.55	6.62	6.67	6.70	6.78	7.15	7.51
2009	6.14	6.95	6.94	6.77	5.73	5.64	5.69	5.75	5.79	5.82	5.89	6.21	6.53
2010	5.78	6.54	6.53	6.37	5.39	5.31	5.36	5.41	5.45	5.48	5.55	5.85	6.15
2011	5.48	6.20	6.19	6.03	5.11	5.03	5.08	5.13	5.17	5.19	5.25	5.54	5.82
2012	5.35	6.05	6.04	5.89	4.99	4.91	4.96	5.01	5.04	5.07	5.13	5.41	5.69
2013	5.22	5.90	5.89	5.75	4.87	4.79	4.84	4.88	4.92	4.95	5.01	5.28	5.55
2014	5.24	5.93	5.92	5.77	4.89	4.81	4.85	4.90	4.94	4.97	5.03	5.30	5.57
2015	5.23	5.92	5.91	5.76	4.88	4.80	4.84	4.89	4.93	4.96	5.01	5.29	5.56
2016	5.34	6.04	6.03	5.88	4.98	4.90	4.94	4.99	5.03	5.06	5.12	5.40	5.67
2017	5.50	6.23	6.22	6.06	5.14	5.05	5.10	5.15	5.19	5.22	5.28	5.57	5.85
2018	5.56	6.29	6.28	6.12	5.18	5.10	5.15	5.20	5.24	5.27	5.33	5.62	5.91
2019	5.62	6.36	6.35	6.19	5.25	5.16	5.21	5.26	5.30	5.33	5.39	5.69	5.98
2020	5.73	6.49	6.48	6.32	5.35	5.26	5.31	5.37	5.41	5.44	5.50	5.80	6.10
2021	5.80	6.57	6.56	6.39	5.41	5.33	5.38	5.43	5.47	5.50	5.57	5.87	6.17
2022	5.92	6.70	6.69	6.52	5.53	5.44	5.49	5.54	5.58	5.61	5.68	5.99	6.29
2023	6.04	6.83	6.82	6.65	5.63	5.54	5.60	5.65	5.69	5.72	5.79	6.11	6.42
2024	6.17	6.98	6.97	6.79	5.76	5.66	5.72	5.77	5.82	5.85	5.92	6.24	6.56
2025	6.22	7.04	7.03	6.85	5.81	5.71	5.77	5.83	5.87	5.90	5.97	6.30	6.62
2026	6.30	7.12	7.11	6.93	5.87	5.78	5.83	5.89	5.94	5.97	6.04	6.37	6.69
2027	6.38	7.22	7.21	7.03	5.96	5.86	5.92	5.98	6.02	6.05	6.12		
Rockies													
2008	6.50	7.35	7.34	7.15	6.06	5.96	6.02	6.08	6.13	6.16	6.23	6.57	6.91
2009	5.65	6.39	6.38	6.22	5.27	5.18	5.23	5.28	5.32	5.35	5.42	5.71	6.00
2010	5.31	6.01	6.00	5.85	4.96	4.88	4.92	4.97	5.01	5.04	5.10	5.37	5.65
2011	5.03	5.70	5.69	5.54	4.70	4.62	4.66	4.71	4.75	4.77	4.83	5.09	5.35
2012	4.92	5.56	5.55	5.41	4.59	4.51	4.55	4.60	4.64	4.66	4.71	4.97	5.22
2013	4.80	5.43	5.42	5.28	4.47	4.40	4.44	4.49	4.52	4.55	4.60	4.85	5.10
2014	4.81	5.45	5.44	5.30	4.49	4.42	4.46	4.51	4.54	4.56	4.62	4.87	5.12
2015	4.80	5.44	5.43	5.29	4.48	4.41	4.45	4.50	4.53	4.55	4.61	4.86	5.11
2016	4.90	5.55	5.54	5.40	4.57	4.50	4.54	4.59	4.62	4.65	4.70	4.96	5.21
2017	5.06	5.72	5.71	5.57	4.72	4.64	4.69	4.73	4.77	4.79	4.85	5.12	5.38
2018	5.11	5.78	5.77	5.62	4.76	4.69	4.73	4.78	4.82	4.84	4.90	5.17	5.43
2019	5.17	5.85	5.84	5.69	4.82	4.74	4.79	4.84	4.87	4.90	4.96	5.23	5.49
2020	5.27	5.96	5.95	5.80	4.92	4.84	4.88	4.93	4.97	5.00	5.05	5.33	5.60
2021	5.33	6.03	6.02	5.87	4.98	4.90	4.94	4.99	5.03	5.05	5.12	5.39	5.67
2022	5.44	6.16	6.15	5.99	5.08	5.00	5.04	5.09	5.13	5.16	5.22	5.50	5.78
2023	5.55	6.28	6.27	6.11	5.18	5.09	5.14	5.19	5.23	5.26	5.32	5.61	5.90
2024	5.67	6.41	6.40	6.24	5.29	5.20	5.25	5.31	5.35	5.37	5.44	5.73	6.03
2025	5.72	6.47	6.46	6.30	5.34	5.25	5.30	5.35	5.39	5.42	5.49	5.79	6.08
2026	5.79	6.55	6.54	6.37	5.40	5.31	5.36	5.42	5.46	5.48	5.55	5.85	6.15
2027	5.87	6.64	6.63	6.46	5.47	5.39	5.44	5.49	5.53	5.56	5.63		

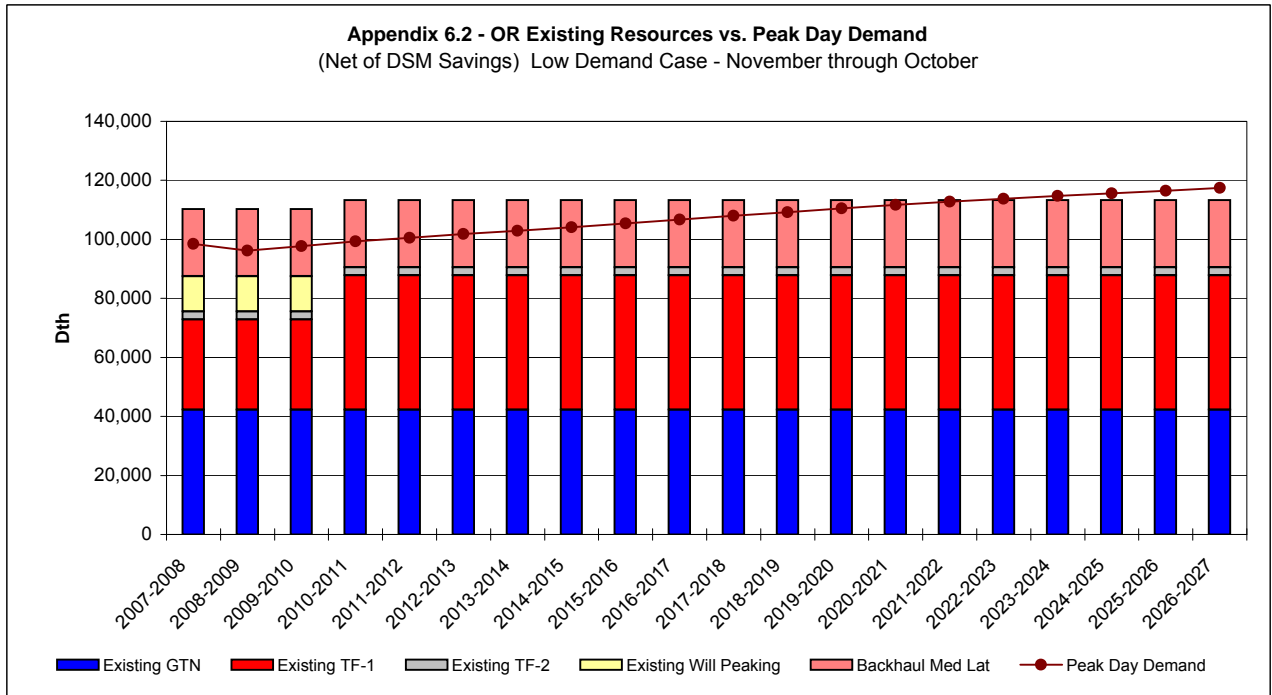
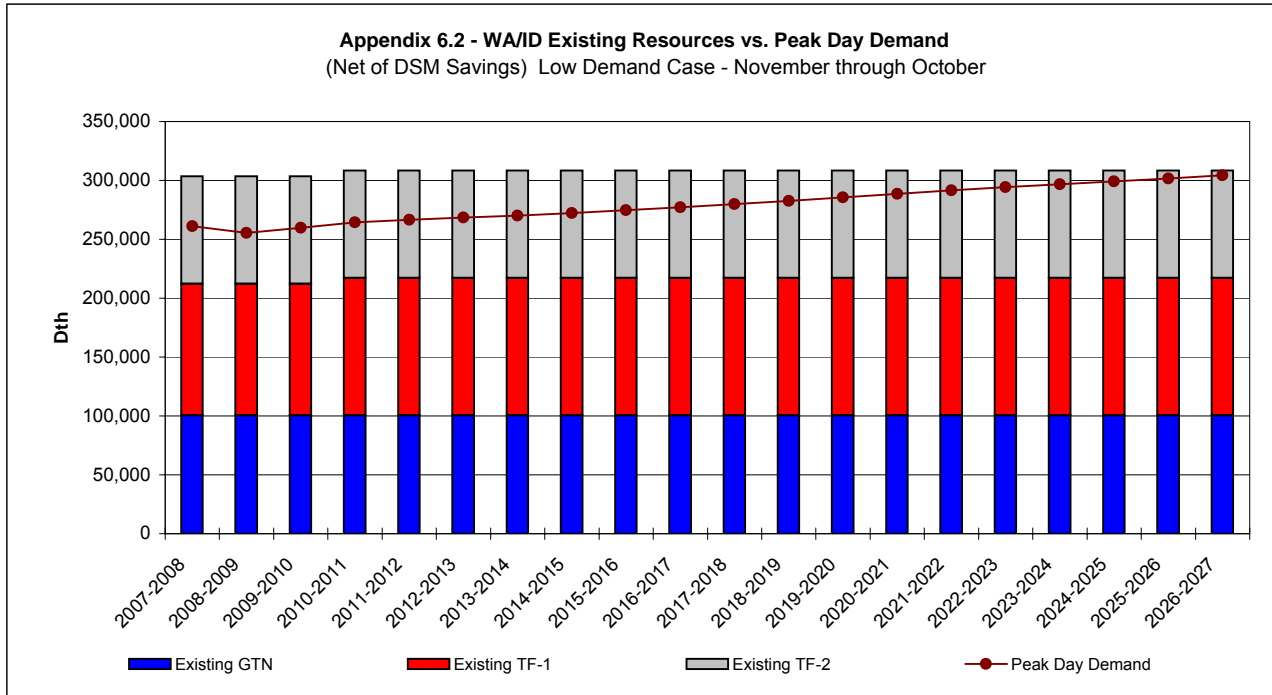
Existing Resource Comparisons

Appendix 6.2

EXISTING RESOURCES



EXISTING RESOURCES



Served and Unserved Demand

Appendix 6.3

**Appendix 6.3 - Peak Day Demand - Served and Unserved (MDth/d)
Before Resource Additions & Net of DSM Savings**

<u>Case</u>	<u>Gas Year</u>	<u>La Grande Served</u>	<u>La Grande Unserved</u>	<u>La Grande Total</u>	<u>WA/ID Served</u>	<u>WA/ID Unserved</u>	<u>WA/ID Total</u>
High	2007-2008	9.86	-	9.86	268.89	-	268.89
High	2008-2009	9.84	-	9.84	274.08	-	274.08
High	2009-2010	10.15	-	10.15	288.99	-	288.99
High	2010-2011	10.25	0.12	10.37	302.02	-	302.02
High	2011-2012	10.25	0.35	10.60	307.42	5.08	312.50
High	2012-2013	10.25	0.55	10.81	307.52	15.85	323.37
High	2013-2014	10.25	0.75	11.00	307.67	26.28	333.95
High	2014-2015	10.25	0.96	11.21	307.63	35.82	343.45
High	2015-2016	10.25	1.18	11.43	307.23	45.98	353.21
High	2016-2017	10.25	1.34	11.59	305.66	56.53	362.19
High	2017-2018	10.25	1.48	11.74	302.65	68.27	370.91
High	2018-2019	10.25	1.63	11.88	301.21	79.62	380.83
High	2019-2020	10.25	1.80	12.05	299.82	91.08	390.91
High	2020-2021	10.25	1.93	12.18	298.64	102.42	401.06
High	2021-2022	10.25	2.07	12.32	297.43	114.37	411.80
High	2022-2023	10.25	2.18	12.44	296.29	125.77	422.06
High	2023-2024	10.25	2.29	12.55	295.18	137.33	432.51
High	2024-2025	10.25	2.40	12.65	295.99	146.68	442.67
High	2025-2026	10.25	2.51	12.76	296.85	156.57	453.43
High	2026-2027	10.25	2.63	12.88	297.70	166.35	464.05

<u>Case</u>	<u>Gas Year</u>	<u>Klamath Falls Served</u>	<u>Klamath Falls Unserved</u>	<u>Klamath Falls Total</u>	<u>Medford/Roseburg Served</u>	<u>Medford/Roseburg Unserved</u>	<u>Medford/Roseburg Total</u>
High	2007-2008	13.89	-	13.89	74.72	-	74.72
High	2008-2009	14.09	-	14.09	75.36	-	75.36
High	2009-2010	14.80	-	14.80	79.39	-	79.39
High	2010-2011	15.03	0.38	15.41	83.01	-	83.01
High	2011-2012	15.03	1.03	16.06	86.65	-	86.65
High	2012-2013	15.03	1.58	16.61	87.24	2.98	90.22
High	2013-2014	15.03	2.11	17.14	87.24	6.73	93.97
High	2014-2015	15.03	2.59	17.63	87.24	10.04	97.28
High	2015-2016	15.03	3.11	18.14	87.24	13.44	100.68
High	2016-2017	15.03	3.59	18.62	87.24	16.73	103.97
High	2017-2018	15.03	4.04	19.08	87.24	19.95	107.19
High	2018-2019	15.03	4.52	19.55	87.24	25.96	113.20
High	2019-2020	15.03	4.98	20.02	87.24	29.20	116.44
High	2020-2021	15.03	5.44	20.48	87.24	32.36	119.60
High	2021-2022	15.03	5.88	20.91	87.24	35.44	122.68
High	2022-2023	15.03	6.32	21.36	87.24	38.39	125.63
High	2023-2024	15.03	6.75	21.78	87.24	41.30	128.54
High	2024-2025	15.03	7.16	22.19	87.24	44.09	131.33
High	2025-2026	15.03	7.63	22.66	87.24	47.15	134.39
High	2026-2027	15.03	8.10	23.13	87.24	50.13	137.37

**Appendix 6.3 - Peak Day Demand - Served and Unserved (MDth/d)
Before Resource Additions & Net of DSM Savings**

<u>Case</u>	<u>Gas Year</u>	<u>La Grande Served</u>	<u>La Grande Unserved</u>	<u>La Grande Total</u>	<u>WA/ID Served</u>	<u>WA/ID Unserved</u>	<u>WA/ID Total</u>
Low	2007-2008	9.69	-	9.69	261.11	-	261.11
Low	2008-2009	9.41	-	9.41	255.47	-	255.47
Low	2009-2010	9.49	-	9.49	259.69	-	259.69
Low	2010-2011	9.58	-	9.58	264.33	-	264.33
Low	2011-2012	9.62	-	9.62	266.56	-	266.56
Low	2012-2013	9.68	-	9.68	268.38	-	268.38
Low	2013-2014	9.72	-	9.72	270.22	-	270.22
Low	2014-2015	9.77	-	9.77	272.22	-	272.22
Low	2015-2016	9.83	-	9.83	274.67	-	274.67
Low	2016-2017	9.89	-	9.89	277.13	-	277.13
Low	2017-2018	9.94	-	9.94	279.87	-	279.87
Low	2018-2019	9.99	-	9.99	282.66	-	282.66
Low	2019-2020	10.04	-	10.04	285.59	-	285.59
Low	2020-2021	10.08	-	10.08	288.60	-	288.60
Low	2021-2022	10.13	-	10.13	291.69	-	291.69
Low	2022-2023	10.15	-	10.15	294.23	-	294.23
Low	2023-2024	10.16	-	10.16	296.74	-	296.74
Low	2024-2025	10.18	-	10.18	299.27	-	299.27
Low	2025-2026	10.19	-	10.19	301.72	-	301.72
Low	2026-2027	10.21	-	10.21	304.39	-	304.39

<u>Case</u>	<u>Gas Year</u>	<u>Klamath Falls Served</u>	<u>Klamath Falls Unserved</u>	<u>Klamath Falls Total</u>	<u>Medford/Roseburg Served</u>	<u>Medford/Roseburg Unserved</u>	<u>Medford/Roseburg Total</u>
Low	2007-2008	13.70	-	13.70	75.11	-	75.11
Low	2008-2009	13.37	-	13.37	73.44	-	73.44
Low	2009-2010	13.57	-	13.57	74.64	-	74.64
Low	2010-2011	13.80	-	13.80	75.98	-	75.98
Low	2011-2012	13.96	-	13.96	76.94	-	76.94
Low	2012-2013	14.10	-	14.10	78.00	-	78.00
Low	2013-2014	14.24	-	14.24	78.99	-	78.99
Low	2014-2015	14.38	-	14.38	79.98	-	79.98
Low	2015-2016	14.53	-	14.53	81.03	-	81.03
Low	2016-2017	14.68	-	14.68	82.14	-	82.14
Low	2017-2018	14.84	-	14.84	83.23	-	83.23
Low	2018-2019	14.98	-	14.98	84.27	-	84.27
Low	2019-2020	15.03	0.07	15.11	85.31	-	85.31
Low	2020-2021	15.03	0.22	15.25	86.36	-	86.36
Low	2021-2022	15.03	0.36	15.39	87.24	0.07	87.31
Low	2022-2023	15.03	0.47	15.50	87.24	0.87	88.11
Low	2023-2024	15.03	0.57	15.61	87.24	1.68	88.92
Low	2024-2025	15.03	0.68	15.71	87.24	2.44	89.68
Low	2025-2026	15.03	0.80	15.83	87.24	3.21	90.45
Low	2026-2027	15.03	0.91	15.94	87.24	4.03	91.27

Supply-Side Resources

Appendix 6.4

Appendix 6.4 - Supply-Side Resources Potential Additional Supply Resources

Facility/Location	Annual (Dth)	Daily (Dth) Delivery	Year Avail. 3/	Lead Time	Investment Cost \$(000's)	Variable Cost \$(000's)	Availability
WA/ID							
AECO Supply	Varies	Varies	1	<1 year	n/a	Commodity	Daily
Sumas/Station 2	Varies	Varies	1	<1 year	n/a	Commodity	Daily
Rockies	Varies	Varies	1	<1 year	n/a	Commodity	Daily
WA/ID Satellite LNG #1	25,000	5,000	10	7 years	7,000	Commodity + \$1.0MM/yr	Peaking
WA/ID Satellite LNG #2	50,000	10,000	10	7 years	12,000	Commodity + \$1.0MM/yr	Peaking
Oregon							
AECO Supply	Varies	Varies	1	<1 year	n/a	Commodity	Daily
Sumas/Station 2 Supply	Varies	Varies	1	<1 year	n/a	Commodity	Daily
Rockies Supply	Varies	Varies	1	<1 year	n/a	Commodity	Daily
Malin Supply	Varies	Varies	1	<1 year	n/a	Commodity	Daily
KFalls Lateral Purchase 2/	0	0	1	<1 year	3,000	none	n/a
KFalls Lateral Enhancement 2/	2,190,000	6,000	1	<1 year	0	Commodity	Annual
La Grande Dist. Enhance. #1	1,460,000	4,000	3	2 years	3,000	Commodity	Annual
Medford Satellite LNG #1	90,000	15,000	5	7 years	14,000	Commodity + \$1.5MM/yr	Peaking
Medford Satellite LNG #2	90,000	15,000	10	7 years	14,000	Commodity + \$1.5MM/yr	Peaking
California Storage 3/	1,000,000	10,000		<1 year	\$2.00 per Dth Inventory	n/a	Peaking
California Storage 3/	1,000,000	10,000		<1 year	\$2.00 per Dth Inventory	n/a	Peaking
Roseburg Satellite LNG	90,000	15,000	10	7 years	14,000	Commodity + \$1.0MM/yr	Peaking
Klamath Falls Satellite LNG	25,000	5,000	5	7 years	7,000	Commodity + \$1.0MM/yr	Peaking
Med. Company Owned LNG	n/a	n/a	n/a	n/a	n/a	n/a	Peaking

1/ Utilizes Malin supply

2/ This column is intended to indicate the first year in which the resource is available. The resource is assumed to be available in each subsequent year

3/ Requires redelivery service via backhauls

Appendix 6.4 - Supply-Side Resources
Potential Contract Demand Expansions/Additions

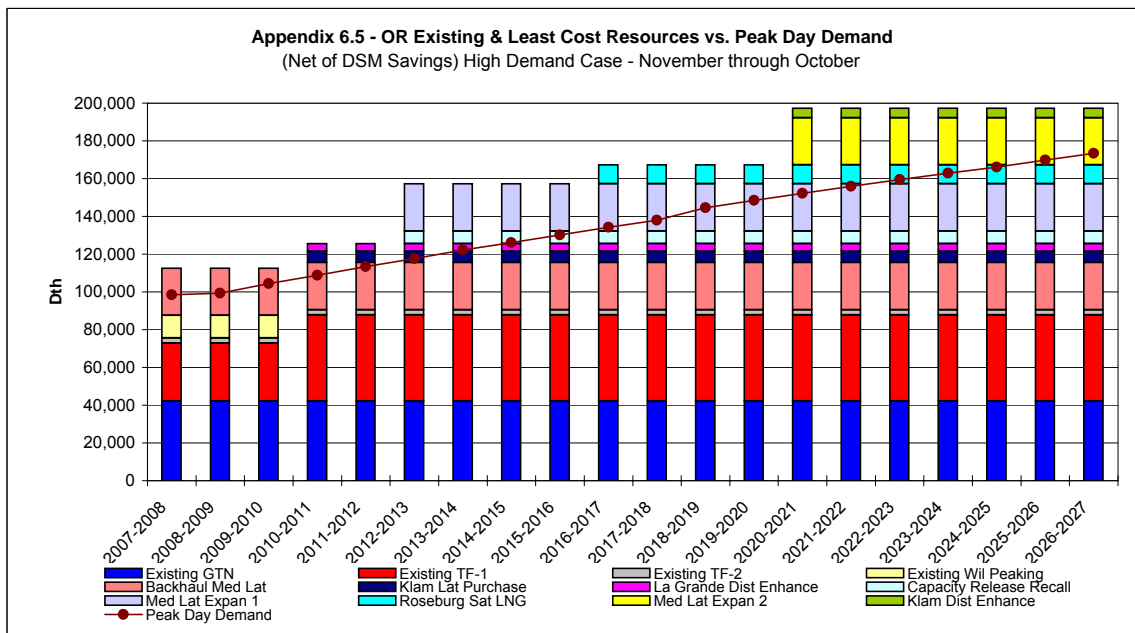
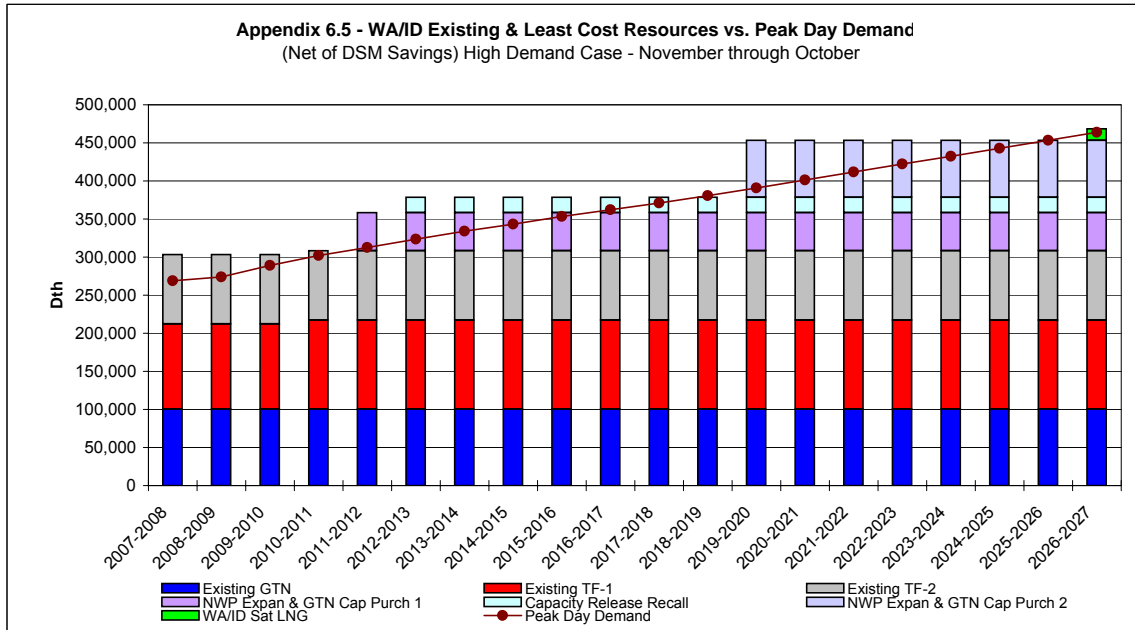
Location	Pipeline/ Facility	Identification	Daily (Dth) Capacity	Year 3/ Available	Lead Time	Capital Cost \$ (000's)	Cost Dth 4/	Notes
WA/ID								
	NWP	NWP Capacity Release Recalls	17,000	4	1 year	n/a	NWP Rate	Recall long-term capacity releases - 2012
	NWP	NWP from GTN #1	25,000	4	3 years	4,000	NWP Rate	Expansion to facilitate additional GTN deliveries
	NWP	NWP from GTN #2	25,000	8	3 years	4,300	NWP Rate	Expansion to facilitate additional GTN deliveries
	NWP	NWP from GTN #3	25,000	12	3 years	4,600	NWP Rate	Expansion to facilitate additional GTN deliveries
	NWP	NWP from GTN #4	50,000	4	3 years	8,000	NWP Rate	Expansion to facilitate additional GTN deliveries
	NWP	NWP from GTN #5	75,000	8	3 years	12,000	NWP Rate	Expansion to facilitate additional GTN deliveries
	NWP	NWP from GTN #6	40,000	12	3 years	6,600	NWP Rate	Expansion to facilitate additional GTN deliveries
	TransCanada AECO to WA/ID	AECO to Spokane #1	25,000	1	<1 year	n/a	GTN/TC Rates	Existing available capacity from AECO to Stanfield. GTN capacity assumed to be winter only.
	TransCanada AECO to WA/ID	AECO to Spokane #2	25,000	1	<1 year	n/a	GTN/TC Rates	Existing available capacity from AECO to Stanfield.
	TransCanada AECO to WA/ID	AECO to Spokane #3	25,000	1	<1 year	n/a	GTN/TC Rates	Existing available capacity from AECO to Stanfield. GTN capacity assumed to be winter only.
	TransCanada AECO to WA/ID	AECO to Spokane #4	50,000	1	<1 year	n/a	GTN/TC Rates	Existing available capacity from AECO to Stanfield.
	TransCanada AECO to WA/ID	AECO to Stanfield #5	60,000	1	<1 year	n/a	GTN/TC Rates	Existing available capacity from AECO to Stanfield.
	TransCanada AECO to WA/ID	AECO to Stanfield #6	40,000	1	<1 year	n/a	GTN/TC Rates	Existing available capacity from AECO to Stanfield.
	NWP	NWP JP Transport Expansion #1	25,000	4	4 years	n/a	NWP Rate X 3.0	Transport Expansion for JP to WA/ID
	NWP	NWP JP Transport Expansion #2	50,000	4	4 years	n/a	NWP Rate X 3.0	Transport Expansion for JP to WA/ID
	NWP	NWP JP Transport Expansion #3	100,000	4	4 years	n/a	NWP Rate X 3.0	Transport Expansion for JP to WA/ID
	NWP	NWP Sumas to WA/ID #1	20,000	5	4 years	n/a	NWP Rate X 4.0	Transport Expansion for Sumas to WA/ID
	NWP	NWP Sumas to WA/ID #2	20,000	10	4 years	n/a	NWP Rate X 4.0	Transport Expansion for Sumas to WA/ID
	NWP	NWP Rocks to WA/ID #1	20,000	5	4 years	n/a	NWP Rate X 4.0	Transport Expansion for Rocks to WA/ID
	NWP	NWP Rocks to WA/ID #2	20,000	10	4 years	n/a	NWP Rate X 4.0	Transport Expansion for Rocks to WA/ID
Oregon								
	NWP	NWP Capacity Release Recalls	6,700	4	1 year	n/a	NWP Rate	Recall long-term capacity releases - 2012
	GTN	GTN Med. Lateral Expansion #1	20,000	4	3 years	n/a	Existing GTN Rate	Expansion of Medford lateral with compression. Allows NWP cap. to be redirected to Roseburg
	GTN	GTN Med. Lateral Expansion #2	25,000	4	3 years	n/a	Existing GTN Rate	Expansion of Medford lateral with compression. Allows NWP cap. to be redirected to Roseburg
	GTN	GTN Med. Lateral Expansion #3	20,000	8	3 years	n/a	Existing GTN Rate	Expansion of Medford lateral with compression. Allows NWP cap. to be redirected to Roseburg
	GTN	GTN Med. Lateral Expansion #4	25,000	8	3 years	n/a	Existing GTN Rate	Expansion of Medford lateral with compression. Allows NWP cap. to be redirected to Roseburg
	GTN	GTN Med. Lateral Expansion #5	25,000	12	3 years	n/a	Existing GTN Rate	Expansion of Medford lateral with compression. Allows NWP cap. to be redirected to Roseburg
	Med. Lat. Klamath Expansion 2/	GTN Med. Lateral Expansion #4	5,000	4	3 years	n/a	Existing GTN Rate	Expansion of Medford lateral with compression. Klamath deliveries only
	NWP	NWP Sumas to Medford Exp. #1	20,000	4	4 years	n/a	NWP Rate X 5.0	Transport Expansion for Sumas to Medford
	NWP	NWP Rocks to Medford Exp. #1	20,000	4	4 years	n/a	NWP Rate X 3.5	Transport Expansion for Rocks to Medford
	NWP	NWP JP to Medford Exp. #1	20,000	4	4 years	n/a	CGT, GTN Rates	Transport Expansion for JP to Medford
	California Storage Transport	CA Storage Backhaul #1	10,000	1	<1 year	n/a	CGT, GTN Rates	Current PG&E CGT, GTN mainline and Medford rates. Combined with CA storage above
	California Storage Transport	CA Storage Backhaul #2	10,000	1	<1 year	n/a	CGT, GTN Rates	Current PG&E CGT, GTN mainline and Medford rates. Combined with CA storage above

1/ Assumes additional participation in expansion by other customers
 2/ Utilizes Main supply
 3/ This column is intended to indicate the first year in which the resource is available. The resource is assumed to be available in each subsequent year until utilized
 4/ All existing rates escalated at inflation rate
 5/ Requires a distribution system enhancement in Medford area to facilitate expansion deliveries. Avista anticipates this enhancement being completed in 2007 and is driven by Integrity Management related activity in the Medford area. The approximate capital cost of this project is \$11MM and will likely be incurred whether or not a GTN Medford lateral expansion is selected by the SENDOUT model for resource additions.
 6/ Transportation resources are assumed to be annual contracts. However, to the extent winter only capacity is available the company will pursue those options.

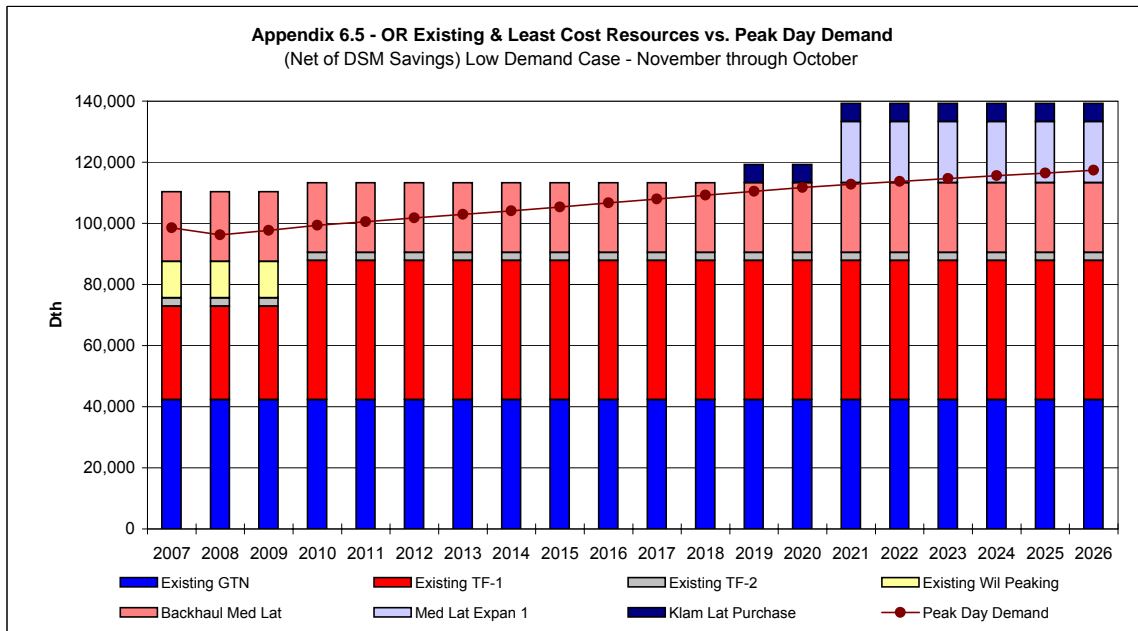
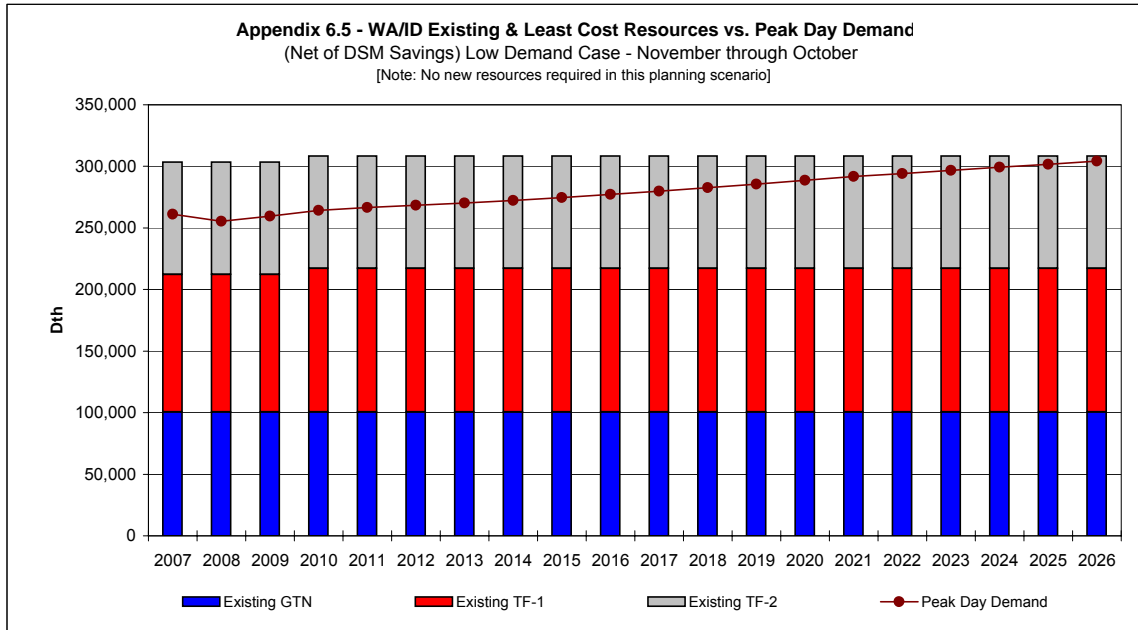
Future Resource Comparisons

Appendix 6.5

EXISTING AND LEAST COST RESOURCES



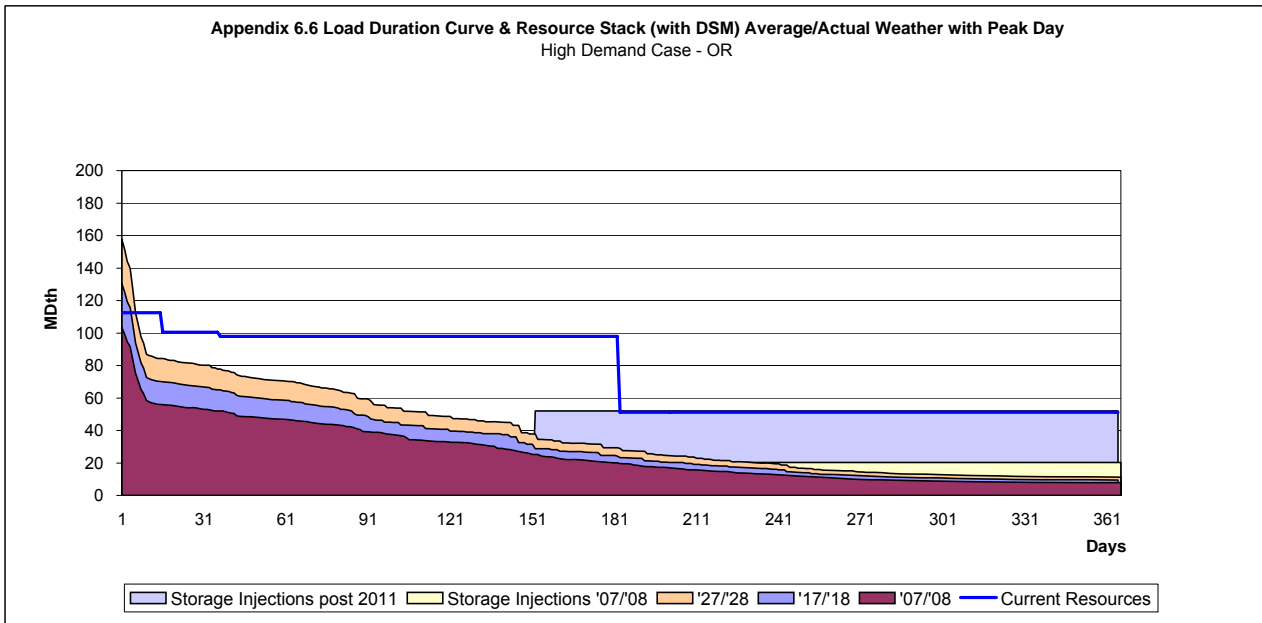
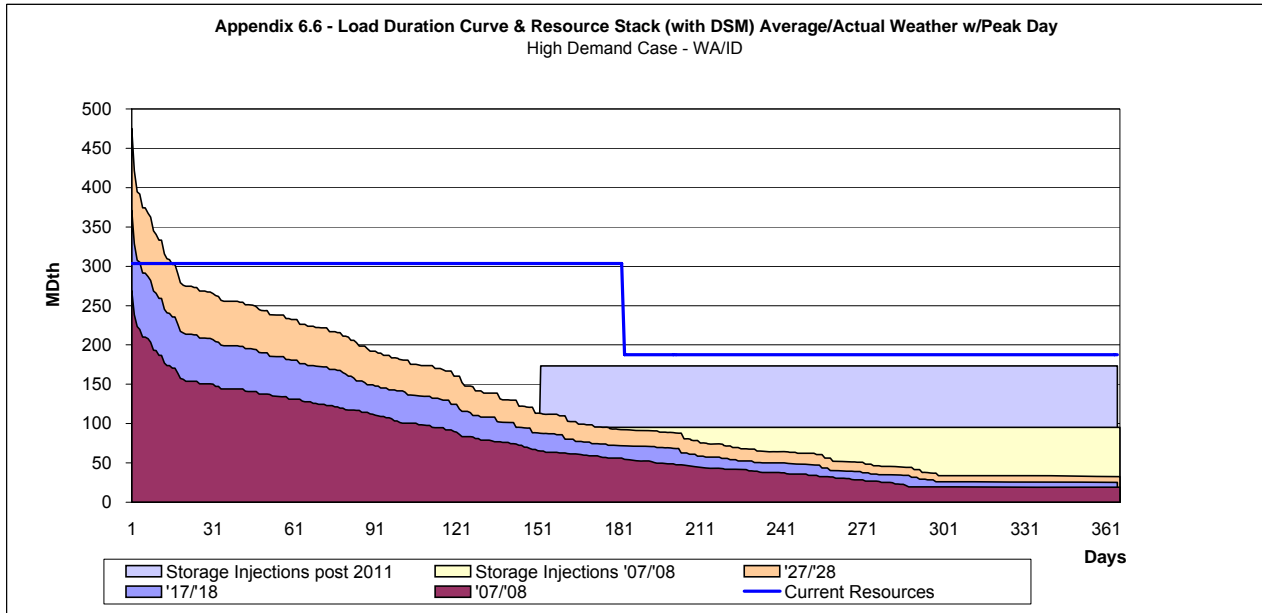
EXISTING AND LEAST COST RESOURCES



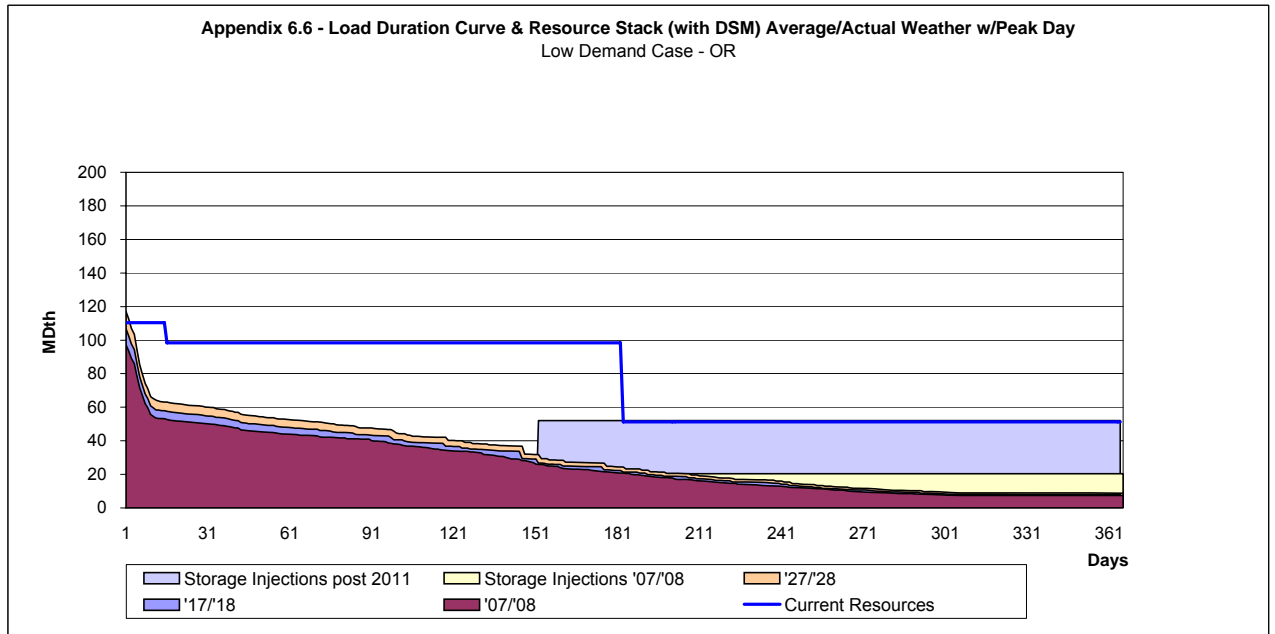
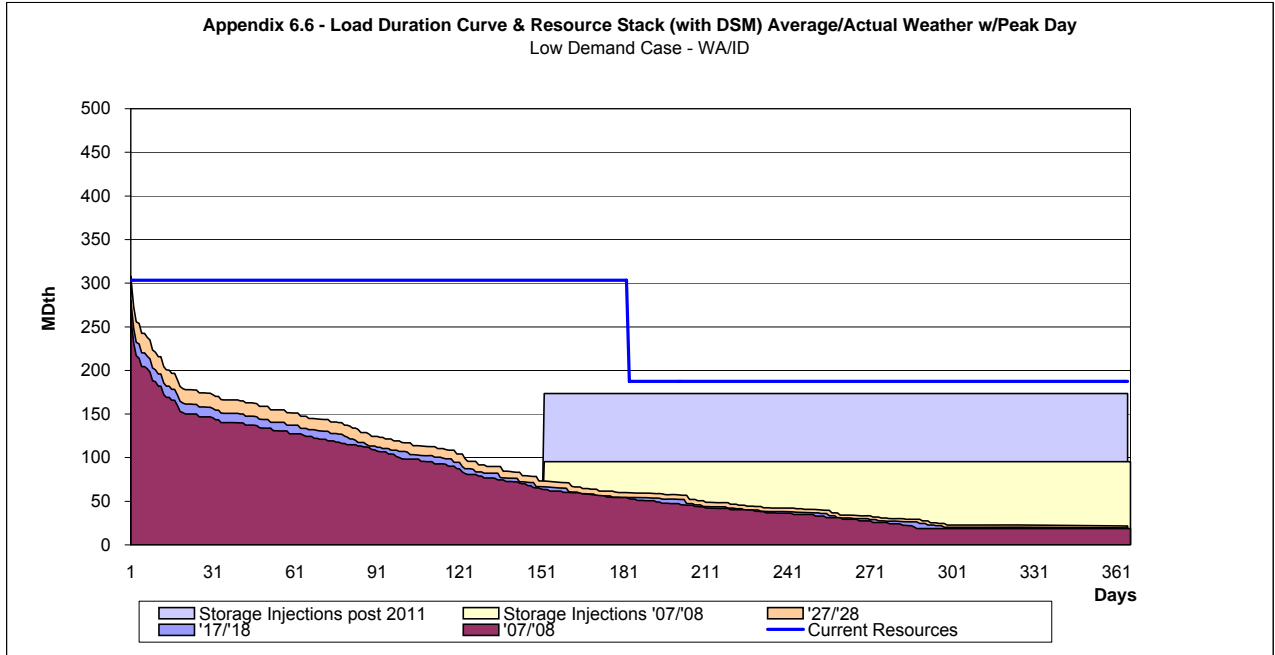
Load Duration Curves

Appendix 6.6

Load Duration Curves



Load Duration Curves



Resource Selections

Appendix 6.7

Appendix 6.7 - Least Cost Supply-Side Resource Additions Selected by SENDOUT®

Appendix 6.7, 2007 Avista Natural Gas IRP

High Demand Case

Item #	Region	Type	Quantity 2/	Timing	Rates/Charges	Description
Washington/Idaho						
1	WA/ID	Capacity Release	20,078	November 2012	NWP TF-1 Rate	Recall long-term capacity releases - 2012
2	WA/ID	Transportation	50,000 - 75,000	November 2011 & 2019	NWP Expansion Rate	WA/ID area expansions to facilitate the delivery in and around Spokane, Lewiston, etc. from GTN into NWP
3	WA/ID	Transportation	50,000	November 2011	TransCanada Rates from Alberta to Stanfield	Acquisition of existing capacity from Alberta to Stanfield on the TransCanada pipelines. Assumed current transportation rates (escalated for inflation). Assumed winter-only capacity on GTN
4	WA/ID	Transportation	75,000	November 2019	TransCanada Rates from Alberta to Stanfield	Acquisition of existing capacity from Alberta to Stanfield on the TransCanada pipelines. Assumed current transportation rates (escalated for inflation). Assumed winter-only capacity on GTN
5	WA/ID	Satellite LNG	15,000	November 2026	Commodity plus Variable	Provides for peaking services and alleviates the need for further costly pipeline construction.
Oregon						
6	OR	Capacity Release	6,700	November 2012	NWP TF-1 Rate	Recall long-term capacity releases - 2012
7	Klamath Falls	Distribution Enhancement	6,000	November 2010	n/a	Purchase of NWP Klamath pipeline segment. Purchase price is approximately \$3 MM capital cost. Purchase may occur as early as 2008/2009 and the price can be allocated towards additional infrastructure. Contract capacity is to be relocated elsewhere.
8	La Grande	Distribution Enhancement	4,000	November 2010	n/a	La Grande distribution system enhancement to install high-pressure distribution system looping from adjacent city gate station such that the La Grande distribution system will be reinforced. The expected capital cost for this enhancement is approximately \$3MM
9	Medford/Roseburg	Distribution Enhancement	n/a	November 2012	n/a	Distribution system enhancement to allow more GTN-based deliveries to the Medford area. This will allow Avista to redirect NWP Grants Pass Lateral deliveries from Medford to Roseburg. The expected capital cost for this Integrity Management related activity is approximately \$14.2MM.
10	Medford/Roseburg	Transportation	25,000	November 2012	GTN's Med. Lat. Rate	GTN expansion of the Medford Lateral. Assumed current lateral rates, escalated for inflation, for expansion. Item #9 above required to facilitate this option.
11	Medford/Roseburg	Transportation	25,000	November 2020	GTN's Med. Lat. Rate	GTN expansion of the Medford Lateral. Assumed current lateral rates, escalated for inflation, for expansion. Item #9 above required to facilitate this option.
12	Roseburg	Satellite LNG	10,000	November 2016	Commodity plus Variable	Supply alleviates Grants Pass Lateral issues and provides peaking services.
13	Klamath Falls	Transportation	5,000	November 2020	GTN's Med. Lat. Rate	GTN expansion of the Medford Lateral. Assumed current lateral rates, escalated for inflation, for expansion. Item #7 above required to facilitate this option.

1/ Does not include DSM therm savings. Therms associated with DSM programs included in DSM Appendix.

2/ Quantity Dth/d unless otherwise noted

Appendix 6.7 - Least Cost Supply-Side Resource Additions Selected by SENDOUT®

Low Demand Case

Item #	Region	Type	Quantity 2/	Timing	Rates/Charges	Description
1	Klamath Falls	Distribution Enhancement	6,000	Nov-19	n/a	Purchase of NWP Klamath pipeline segment. Purchase price is approximately \$3 MM capital cost. Purchase may occur as early as 2008/2009 and the price can be allocated towards additional infrastructure. Contract capacity is to be relocated elsewhere. Not needed for peak needs in this case but provides other core benefits.
2	Medford/Roseburg	Distribution Enhancement	n/a	Nov-21	n/a	Distribution system enhancement to allow more GTN-based deliveries to the Medford area. This will allow Avista to redirect NWP Grants Pass Lateral deliveries from Medford to Roseburg. The expected capital cost GTN expansion of the Medford Lateral. Assumed current lateral rates, escalated by inflation, for expansion. Item #2 above required to facilitate this option
3	Medford/Roseburg	Transportation	20,000	Nov-21	GTN's Med. Lat. Rate	

1/ Does not include DSM therm savings. Terms associated with DSM programs included in DSM Appendix.

2/ Quantity Div'd unless otherwise noted

Demand-Side Management Savings

Appendix 6.8

Appendix 6.8 - Annual and Annual Average Demand Served by Demand-Side Management 1

Case	Gas Year	Annual Klamath		Daily Klamath		Annual LaGrande		Daily LaGrande		Annual Medford		Daily Medford		Annual Roseburg		Daily Roseburg		Annual Oregon		Daily Oregon		Annual WAVID		Daily WAVID		Annual Total System DSM		Daily Total System DSM	
		(MWh)	(MDth/d)	(MWh)	(MDth/d)	(MWh)	(MDth/d)	(MWh)	(MDth/d)	(MWh)	(MDth/d)	(MWh)	(MDth/d)	(MWh)	(MDth/d)	(MWh)	(MDth/d)	(MWh)	(MDth/d)	(MWh)	(MDth/d)	(MWh)	(MDth/d)	(MWh)	(MDth/d)	(MWh)	(MDth/d)	(MWh)	(MDth/d)
Expected	2007-2008	3.589	0.010	1.695	0.005	11.117	0.030	3.112	0.009	19.513	0.053	67.664	0.185	87.177	0.239														
Expected	2008-2009	7.408	0.020	3.381	0.009	22.142	0.060	6.202	0.017	39.134	0.107	134.837	0.368	173.971	0.475														
Expected	2009-2010	11.112	0.030	5.072	0.014	33.214	0.091	9.303	0.025	58.701	0.161	202.255	0.554	260.956	0.715														
Expected	2010-2011	14.816	0.041	7.044	0.019	44.285	0.121	12.404	0.034	78.549	0.215	269.674	0.739	348.223	0.954														
Expected	2011-2012	18.580	0.051	8.829	0.024	55.584	0.152	15.561	0.043	98.554	0.269	338.321	0.924	436.875	1.194														
Expected	2012-2013	22.223	0.061	10.566	0.029	66.427	0.182	18.607	0.051	117.824	0.323	500.544	1.371	618.368	1.694														
Expected	2013-2014	25.927	0.071	12.327	0.034	77.644	0.213	21.708	0.059	137.606	0.377	694.854	1.904	832.461	2.281														
Expected	2014-2015	29.789	0.081	14.695	0.040	92.751	0.253	25.609	0.070	162.845	0.445	881.620	2.409	1,044.465	2.854														
Expected	2015-2016	32.318	0.089	15.868	0.043	104.962	0.288	27.237	0.075	180.385	0.494	1,020.652	2.796	1,201.038	3.291														
Expected	2016-2017	34.645	0.095	16.937	0.046	110.941	0.304	28.610	0.078	191.134	0.524	1,155.248	3.165	1,346.381	3.689														
Expected	2017-2018	37.091	0.101	18.063	0.049	117.471	0.321	30.109	0.082	202.734	0.554	1,232.522	3.368	1,435.256	3.921														
Expected	2018-2019	39.481	0.108	19.181	0.053	125.588	0.344	31.605	0.087	215.855	0.591	1,309.797	3.588	1,525.652	4.180														
Expected	2019-2020	42.011	0.115	20.359	0.056	132.596	0.363	33.179	0.091	228.145	0.625	1,392.710	3.816	1,620.854	4.441														
Expected	2020-2021	44.125	0.121	21.356	0.058	137.980	0.377	35.662	0.097	239.124	0.653	1,464.292	4.001	1,703.415	4.654														
Expected	2021-2022	48.821	0.134	22.407	0.061	143.930	0.394	37.075	0.102	252.232	0.691	1,541.539	4.223	1,793.772	4.914														
Expected	2022-2023	51.104	0.140	23.383	0.064	149.423	0.409	38.385	0.105	262.296	0.719	1,617.415	4.431	1,879.711	5.150														
Expected	2023-2024	53.570	0.147	24.424	0.067	155.608	0.426	39.853	0.109	273.454	0.749	1,700.313	4.658	1,973.767	5.408														
Expected	2024-2025	55.672	0.152	25.334	0.069	160.410	0.438	41.006	0.112	282.422	0.772	1,762.283	4.815	2,044.705	5.587														
Expected	2025-2026	57.956	0.159	26.309	0.072	165.904	0.455	42.316	0.116	292.485	0.801	1,831.275	5.017	2,123.760	5.819														
Expected	2026-2027	60.221	0.165	27.280	0.075	171.243	0.469	43.603	0.119	302.348	0.828	1,900.267	5.206	2,202.615	6.035														

Appendix 6.8 - Annual and Annual Average Demand Served by Demand-Side Management 1

Case	Gas Year	Annual Klamath		Daily Klamath		Annual LaGrande		Daily LaGrande		Annual Medford		Daily Medford		Annual Roseburg		Daily Roseburg		Annual Oregon		Daily Oregon		Annual WA/ID		Daily WA/ID		Annual Total System DSM		Daily Total System DSM	
		(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)
High	2007-2008	3.589	0.010	1.695	0.005	11.117	0.030	3.112	0.009	19.513	0.053	67.664	0.185	87.177	0.239														
High	2008-2009	7.408	0.020	3.381	0.009	22.142	0.060	6.202	0.017	39.134	0.107	134.837	0.368	173.971	0.475														
High	2009-2010	11.112	0.030	5.072	0.014	33.214	0.091	9.303	0.025	58.701	0.161	202.255	0.554	260.956	0.715														
High	2010-2011	14.816	0.041	6.763	0.019	44.285	0.121	12.404	0.034	78.268	0.214	269.674	0.739	347.942	0.953														
High	2011-2012	18.580	0.051	8.829	0.024	55.584	0.152	15.561	0.043	98.554	0.269	338.321	0.924	436.875	1.194														
High	2012-2013	22.223	0.061	10.566	0.029	66.427	0.182	18.607	0.051	117.824	0.323	457.131	1.252	574.954	1.575														
High	2013-2014	25.927	0.071	12.327	0.034	77.508	0.212	21.716	0.059	137.478	0.377	587.382	1.609	724.860	1.986														
High	2014-2015	29.669	0.081	14.088	0.038	92.245	0.252	25.712	0.070	161.714	0.442	881.074	2.407	1,042.788	2.849														
High	2015-2016	32.269	0.088	15.848	0.043	105.939	0.290	28.100	0.077	182.157	0.499	1,043.901	2.860	1,226.058	3.359														
High	2016-2017	34.592	0.095	16.937	0.046	112.107	0.307	29.584	0.081	193.220	0.529	1,129.535	3.095	1,322.755	3.624														
High	2017-2018	37.030	0.101	18.049	0.049	118.880	0.325	31.168	0.085	205.128	0.560	1,232.522	3.368	1,437.650	3.928														
High	2018-2019	39.481	0.108	19.181	0.053	125.588	0.344	32.710	0.090	216.960	0.594	1,309.797	3.588	1,526.756	4.183														
High	2019-2020	42.011	0.115	20.349	0.056	132.596	0.363	34.381	0.094	229.338	0.628	1,392.710	3.816	1,622.047	4.444														
High	2020-2021	44.125	0.121	21.356	0.058	137.980	0.377	35.662	0.097	239.124	0.653	1,464.292	4.001	1,703.415	4.654														
High	2021-2022	46.380	0.127	22.407	0.061	143.930	0.394	37.075	0.102	249.791	0.684	1,541.539	4.223	1,791.331	4.908														
High	2022-2023	51.104	0.140	23.383	0.064	149.423	0.409	38.385	0.105	262.296	0.719	1,617.415	4.431	1,879.711	5.150														
High	2023-2024	53.570	0.147	24.424	0.067	155.608	0.426	39.853	0.109	273.454	0.749	1,700.313	4.658	1,973.767	5.408														
High	2024-2025	55.672	0.152	25.334	0.069	160.410	0.438	41.006	0.112	282.422	0.772	1,762.283	4.815	2,044.705	5.587														
High	2025-2026	57.956	0.159	26.309	0.072	165.904	0.455	42.316	0.116	292.485	0.801	1,831.275	5.017	2,123.760	5.819														
High	2026-2027	60.221	0.165	27.280	0.075	171.243	0.469	43.603	0.119	302.348	0.828	1,900.267	5.206	2,202.615	6.035														

Appendix 6.8 - Annual and Annual Average Demand Served by Demand-Side Management 1

Case	Gas Year	Annual Klamath		Daily Klamath		Annual LaGrande		Daily LaGrande		Annual Medford		Daily Medford		Annual Roseburg		Daily Roseburg		Annual Oregon		Daily Oregon		Annual WA/ID		Daily WA/ID		Annual Total System DSM		Daily Total System DSM	
		(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)	(MDth)	(MDth/d)
Low	2007-2008	3.589	0.010	1.695	0.005	11.117	0.030	3.112	0.009	19.513	0.053	67.664	0.185	87.177	0.239														
Low	2008-2009	7.408	0.020	3.381	0.009	22.142	0.060	6.202	0.017	39.134	0.107	134.837	0.368	173.971	0.475														
Low	2009-2010	11.112	0.030	5.072	0.014	33.214	0.091	9.303	0.025	58.701	0.161	202.255	0.554	260.956	0.715														
Low	2010-2011	14.816	0.041	7.044	0.019	44.285	0.121	12.404	0.034	78.549	0.215	269.674	0.739	348.223	0.954														
Low	2011-2012	18.580	0.051	8.829	0.024	55.584	0.152	15.561	0.043	98.554	0.269	419.532	1.146	518.087	1.416														
Low	2012-2013	22.252	0.061	10.566	0.029	68.291	0.187	18.607	0.051	119.716	0.328	603.431	1.653	723.147	1.981														
Low	2013-2014	26.065	0.071	12.859	0.035	81.157	0.222	22.490	0.062	142.571	0.391	772.054	2.115	914.625	2.506														
Low	2014-2015	29.840	0.082	14.713	0.040	92.922	0.254	25.702	0.070	163.178	0.446	924.198	2.525	1,087.376	2.971														
Low	2015-2016	32.415	0.089	15.871	0.043	105.297	0.288	27.316	0.075	180.900	0.496	1,043.901	2.860	1,224.801	3.356														
Low	2016-2017	34.700	0.095	16.953	0.046	111.453	0.305	28.706	0.079	191.812	0.526	1,155.248	3.165	1,347.060	3.691														
Low	2017-2018	37.091	0.101	18.067	0.049	119.137	0.326	30.155	0.082	204.450	0.559	1,232.522	3.368	1,436.972	3.926														
Low	2018-2019	39.481	0.108	19.190	0.053	125.588	0.344	31.605	0.087	215.864	0.591	1,309.797	3.588	1,525.660	4.180														
Low	2019-2020	42.011	0.115	20.359	0.056	132.596	0.363	34.381	0.094	229.347	0.628	1,392.710	3.816	1,622.057	4.444														
Low	2020-2021	46.403	0.127	21.356	0.058	137.980	0.377	35.662	0.097	241.402	0.660	1,464.292	4.001	1,705.694	4.660														
Low	2021-2022	48.821	0.134	22.407	0.061	143.930	0.394	37.075	0.102	252.232	0.691	1,541.539	4.223	1,793.772	4.914														
Low	2022-2023	51.104	0.140	23.383	0.064	149.423	0.409	38.385	0.105	262.296	0.719	1,617.415	4.431	1,879.711	5.150														
Low	2023-2024	53.570	0.147	24.424	0.067	155.608	0.426	39.853	0.109	273.454	0.749	1,700.313	4.658	1,973.767	5.408														
Low	2024-2025	55.672	0.152	25.334	0.069	160.410	0.438	41.006	0.112	282.422	0.772	1,762.283	4.815	2,044.705	5.587														
Low	2025-2026	57.956	0.159	26.309	0.072	165.904	0.455	42.316	0.116	292.485	0.801	1,831.275	5.017	2,123.760	5.819														
Low	2026-2027	60.221	0.165	27.280	0.075	176.733	0.484	43.603	0.119	307.837	0.843	1,900.267	5.206	2,208.104	6.050														

Demand-Side Management Selected Measures

Appendix 6.9

Appendix 6.9 - Washington/Idaho Preliminary Evaluation Results

	Program	WA/ID
Energy Star Pressure Steamer	Non-residentialcooking	Must Take
Programmable Thermostats	Non-residentialHVAC	Must Take
Radiant heat	Non-residentialHVAC	Must Take
Low Flow Showerheads	Non-residentialDHW	Must Take
Pool blanket	ResidentialDHW	Must Take
Programmable Thermostat	ResidentialHVAC	Must Take
Wall insulation	Non-residentialshell	Must Take
Pool blanket	Non-residentialpool	Must Take
Pool blanket	ResidentialDHW	Must Take
horizontal axis clothes washer	Residentialappliances	Must Take
Crematoria	Non-residentialcrematoria	Must Take
Programmable Thermostat	ResidentialHVAC	Must Take
Roof insulation	Non-residentialshell	Must Take
Pizza / Deck Oven	Non-residentialcooking	Must Take
Warm Up Control	Non-residentialHVAC	Must Take
Coin-Op Gas Clothers Dryer	Non-residentialappliances	Must Take
Demand control ventilation	Non-residentialHVAC	Must Take
Conveyer Broiler	Non-residentialcooking	Must Take
Cheesemelter	Non-residentialcooking	Must Take
Salamander	Non-residentialcooking	Must Take
Tankless Water Heater	Non-residentialDHW	Must Take
Fireplace dampers	Residentialshell	Must Take
Vent Damper	Non-residentialHVAC	Must Take
Comm. Gas Clothes Dryer	Non-residentialappliances	Must Take
Boiler	Non-residentialDHW	Must Take
Condensing Storage Water Heater	Non-residentialDHW	Must Take
Kiln	Non-residentialkiln	Must Take
Boiler Tune-up	Non-residentialHVAC	Must Take
Duct sealing	ResidentialHVAC	Must Take
High efficiency boiler	ResidentialHVAC	Must Take
high Efficiency furnace	ResidentialHVAC	Must Take
Walls insulation	Residentialshell	Must Take
Window (WA/ID)	Residentialshell	Must Take
Attic insulation	Residentialshell	Must Take
Duct sealing	ResidentialHVAC	Must Take
Condensing Boiler	Non-residentialDHW	Must Take
Duct insulation retrofit	ResidentialHVAC	Must Take
Recirculation Controls	Non-residentialDHW	Must Take
Charbroiler	Non-residentialcooking	Must Take
Recirculation Controls	Non-residentialHVAC	Must Take
Occupancy sensors for PTAC units	Non-residentialHVAC	Must Take
Duct insulation retrofit	ResidentialHVAC	Must Take

Appendix 6.9 - Washington/Idaho Preliminary Evaluation Results

	Program	WA/ID
Floor insulation	Residentialshell	SENDOUT®
Condensing Tank Water Heater	Non-residentialDHW	SENDOUT®
BBQ / Rotisserie Oven	Non-residentialcooking	SENDOUT®
High efficiency furnace	ResidentialHVAC	SENDOUT®
Wall insulation	Residentialshell	SENDOUT®
Window (WA/ID)	Residentialshell	SENDOUT®
Condensing boiler	ResidentialDHW	SENDOUT®
Condensing boiler	ResidentialHVAC	SENDOUT®
Air sealing weatherstripping	Residentialshell	SENDOUT®
Air sealing weatherstripping	Residentialshell	SENDOUT®
Floor insulation	Residentialshell	SENDOUT®
Tankless water heater	ResidentialDHW	SENDOUT®
Convection Oven	Non-residentialcooking	SENDOUT®
Coin-op clothes washer	Non-residentialappliances	SENDOUT®
Attic insulation	Residentialshell	SENDOUT®
Power Burner	Non-residentialHVAC	SENDOUT®
Gas Pool Heater	Non-residentialpool	SENDOUT®
Gas Pool Heater	ResidentialHVAC	SENDOUT®
Gas Pool Heater	ResidentialHVAC	SENDOUT®
Energy recovery ventilation	Non-residentialHVAC	SENDOUT®
Rack / Tray Oven	Non-residentialcooking	SENDOUT®
Infrared Fryer Griddle	Non-residentialcooking	Screened Out
Combi Oven	Non-residentialcooking	Screened Out
Infrared General Purpose Fryer	Non-residentialcooking	Screened Out
Direct vent gas unit heater	ResidentialHVAC	SENDOUT®
Energy Star Home	Residentialwhole home	Screened Out
Direct vent gas unit heater	ResidentialHVAC	SENDOUT®
Exterior doors	Residentialshell	Screened Out
Exterior doors	Residentialshell	Screened Out
Revolving Oven	Non-residentialcooking	Screened Out
Pipe insulation	ResidentialDHW	Screened Out
Pipe insulation	ResidentialDHW	Screened Out
Passive solar water heating	ResidentialDHW	Screened Out
Passive solar water heating	ResidentialDHW	Screened Out
Oven Conveyer	Non-residentialcooking	Screened Out
Window retrofit	Non-residentialshell	Screened Out
Solar water	Non-residentialDHW	Screened Out
Salamander (Broiler)	Non-residentialcooking	Screened Out
Comm clothes washer	Non-residentialappliances	Screened Out
Cheesemelter (broiler)	Non-residentialcooking	Screened Out
Gas Spa Heater	Non-residentialpool	Screened Out
Gas Spa Heater	ResidentialHVAC	Screened Out
Gas Spa Heater	ResidentialHVAC	Screened Out
Open Burner	Non-residentialcooking	Screened Out
Combo boiler (hydronic)	ResidentialDHW	Screened Out
Combo boiler (air)	ResidentialDHW	Screened Out
Exterior doors	Residentialshell	Screened Out
Exterior doors	Residentialshell	Screened Out

Appendix 6.9 - Oregon Program Preliminary Evaluation Results

Program	Roseburg	Medford	LaGrande	Klamath Falls
Wall insulationResidentialshell	Mandated	Mandated	Mandated	Mandated
Floor insulationResidentialshell	Mandated	Mandated	Mandated	Mandated
Attic insulationResidentialshell	Mandated	Mandated	Mandated	Mandated
Air sealing weatherstrippingResidentialshell	Mandated	Mandated	Mandated	Mandated
Pre-rinse sprayersNon-residentialDHW	Must Take	Must Take	Must Take	Must Take
horizontal axis clothes washerResidentialappliances	Must Take	Must Take	Must Take	Must Take
Energy Star Pressure SteamerNon-residentialcooking	Must Take	Must Take	Must Take	Must Take
Programmable ThermostatNon-residentialHVAC	Must Take	Must Take	Must Take	Must Take
Radiant heatNon-residentialHVAC	Must Take	Must Take	Must Take	Must Take
Pool blanket - MFHResidentialDHW	Must Take	Must Take	Must Take	Must Take
Programmable ThermostatResidentialHVAC	Must Take	Must Take	Must Take	Must Take
Pool blanket - Non resNon-residentialpool	Must Take	Must Take	Must Take	Must Take
Pool blanket - SFHResidentialDHW	Must Take	Must Take	Must Take	Must Take
CrematoriaNon-residentialcrematoria	Must Take	Must Take	Must Take	Must Take
Wall insulationNon-residentialshell	Must Take	Must Take	Must Take	Must Take
Coin-Op Gas Clothers DryerNon-residentialappliances	Must Take	Must Take	Must Take	Must Take
Pizza / Deck OvenNon-residentialcooking	Must Take	Must Take	Must Take	Must Take
Roof insulationNon-residentialshell	Must Take	Must Take	Must Take	Must Take
Programmable ThermostatResidentialHVAC	Must Take	Must Take	Must Take	Must Take
Conveyer BroilerNon-residentialcooking	Must Take	Must Take	Must Take	Must Take
CheesemelterNon-residentialcooking	Must Take	Must Take	Must Take	Must Take
SalamanderNon-residentialcooking	Must Take	Must Take	Must Take	Must Take
Demand control ventilationNon-residentialHVAC	Must Take	Must Take	Must Take	Must Take
Warm Up ControlNon-residentialHVAC	Must Take	Must Take	Must Take	Must Take
Tankless Water HeaterNon-residentialDHW	Must Take	Must Take	Must Take	Must Take
BoilerNon-residentialDHW	Must Take	Must Take	Must Take	Must Take
KilnNon-residentialkiln	Must Take	Must Take	Must Take	Must Take
Comm. Gas Clothes DryerNon-residentialappliances	Must Take	Must Take	Must Take	Must Take
Condensing Storage Water HeaterNon-residentialDHW	Must Take	Must Take	Must Take	Must Take
High efficiency boilerResidentialDHW	Must Take	Must Take	Must Take	Must Take
Fireplace dampersResidentialshell	Must Take	Must Take	Must Take	Must Take
high Efficiency furnaceResidentialHVAC	Must Take	Must Take	Must Take	Must Take
Vent DamperNon-residentialHVAC	Must Take	Must Take	Must Take	Must Take
Condensing BoilerNon-residentialDHW	Must Take	Must Take	Must Take	Must Take
Duct sealing - SFHResidentialHVAC	Must Take	Must Take	Must Take	Must Take
High efficiency boilerResidentialHVAC	Must Take	Must Take	Must Take	Must Take
CharbroilerNon-residentialcooking	Must Take	Must Take	Must Take	Must Take
Recirculation ControlsNon-residentialDHW	Must Take	Must Take	Must Take	Must Take
Condensing Tank Water HeaterNon-residentialDHW	Must Take	Must Take	Must Take	Must Take
Boiler Tune-upNon-residentialHVAC	Must Take	Must Take	Must Take	Must Take
BBQ / Rotisserie OvenNon-residentialcooking	Must Take	Must Take	Must Take	Must Take
Duct sealing - MFHResidentialHVAC	Must Take	Must Take	Must Take	Must Take
Recirculation ControlsNon-residentialHVAC	Must Take	Must Take	Must Take	Must Take
Duct commissioningResidentialHVAC	Must Take	Must Take	Must Take	Must Take
High efficiency furnaceResidentialHVAC	Must Take	Must Take	Must Take	Must Take
Occupancy sensors for PTAC unitsNon-residentialHVAC	Must Take	Must Take	Must Take	Must Take

Appendix 6.9 - Oregon Program Preliminary Evaluation Results

Program	Roseburg	Medford	LaGrande	Klamath Falls
Convection OvenNon-residentialcooking	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Tankless water heaterResidentialDHW	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Rack / Tray OvenNon-residentialcooking	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Infrared Fryer GriddleNon-residentialcooking	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Gas Pool HeaterNon-residentialpool	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Gas Pool HeaterResidentialHVAC	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Gas Pool HeaterResidentialHVAC	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Energy recovery ventilationNon-residentialHVAC	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Combi OvenNon-residentialcooking	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Infrared General Purpose FryerNon-residentialcooking	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Power BurnerNon-residentialHVAC	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Revolving OvenNon-residentialcooking	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Energy Star HomeResidentialwhole home	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Exterior doorsResidentialshell	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Exterior doorsResidentialshell	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Direct vent gas unit heaterResidentialHVAC	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Direct vent gas unit heaterResidentialHVAC	Screened Out	Screened Out	Screened Out	Screened Out
Window retrofitNon-residentialshell	SENDOUT®	SENDOUT®	SENDOUT®	SENDOUT®
Coin-op clothes washerNon-residentialappliances	Screened Out	Screened Out	Screened Out	Screened Out
Passive solar water heatingResidentialDHW	Screened Out	Screened Out	Screened Out	Screened Out
Passive solar water heatingResidentialDHW	Screened Out	Screened Out	Screened Out	Screened Out
Oven ConveyerNon-residentialcooking	Screened Out	Screened Out	Screened Out	Screened Out
Comm clothes washerNon-residentialappliances	Screened Out	Screened Out	Screened Out	Screened Out
Salamander (Broiler)Non-residentialcooking	Screened Out	Screened Out	Screened Out	Screened Out
Solar waterNon-residentialDHW	Screened Out	Screened Out	Screened Out	Screened Out
Cheesemelter (broiler)Non-residentialcooking	Screened Out	Screened Out	Screened Out	Screened Out
Gas Spa HeaterNon-residentialpool	Screened Out	Screened Out	Screened Out	Screened Out
Open BurnerNon-residentialcooking	Screened Out	Screened Out	Screened Out	Screened Out
Combo boiler (hydronic)ResidentialDHW	Screened Out	Screened Out	Screened Out	Screened Out
Gas Spa HeaterResidentialHVAC	Screened Out	Screened Out	Screened Out	Screened Out
Gas Spa HeaterResidentialHVAC	Screened Out	Screened Out	Screened Out	Screened Out
Combo boiler (air)ResidentialDHW	Screened Out	Screened Out	Screened Out	Screened Out
Exterior doorsResidentialshell	Screened Out	Screened Out	Screened Out	Screened Out
Exterior doorsResidentialshell	Screened Out	Screened Out	Screened Out	Screened Out

Demand-Side Management Programs – OR Only

Appendix 6.10

Appendix 6.10 - Oregon Measure Final Status and Resource Acquisition

Measure	Sector	Incremental measure cost	Measure life	Energy savings/unit	Non-Energy benefits	Levelized TRC	2007/2008	CY 2008 unit goal	CY 2008 therm goal	CY 2009 unit goal	CY 2009 therm goal	Category	Final status
							Annual acquisition						
Wall insulation	Residential	\$ 744	45	66	\$ -	\$ 1.03	1,992	34	2,254	39	2,563	Dark green	Mandated
Air sealing weatherstripping	Residential	\$ 250	10	38	\$ -	\$ 1.03	948	28	1,073	32	1,220	Dark green	Mandated
Floor insulation	Residential	\$ 1,244	45	96	\$ -	\$ 1.19	7,698	91	8,714	103	9,906	Dark green	Mandated
Attic insulation	Residential	\$ 666	45	44	\$ -	\$ 1.38	7,872	201	8,910	229	10,129	Dark green	Mandated
Pre-rinse sprayers	Non-residential	\$ 10	5	176	\$ 91	\$ (0.12)	70,400	400	70,400	-	-	Green	Special pass
Energy Star Pressure Steamer	Non-residential	\$ 111	20	643	\$ -	\$ 0.02	1,286	2	1,290	2	1,326	Green	Spreadsheet pass
Programmable Thermostats	Non-residential	\$ 25	20	117	\$ -	\$ 0.02	1,172	10	1,176	10	1,209	Green	Spreadsheet pass
Radiant heat	Non-residential	\$ 25	20	117	\$ -	\$ 0.02	586	5	588	5	604	Green	Spreadsheet pass
horizontal axis clothes washer	Residential	\$ 70	13	17	\$ 61	\$ 0.07	6,800	453	7,697	515	8,750	Green	Spreadsheet pass
Pool blanket - MFH	Residential	\$ 25	20	41	\$ -	\$ 0.07	0	-	-	-	-	Green	Spreadsheet pass
Programmable Thermostat	Residential	\$ 25	20	31	\$ -	\$ 0.09	0	-	-	-	-	Green	Spreadsheet pass
Pool blanket - Non res	Non-residential	\$ 2,200	10	2,720	\$ -	\$ 0.13	2,720	1	2,729	1	2,805	Green	Spreadsheet pass
Pool blanket - SFH	Residential	\$ 1,100	10	1,360	\$ -	\$ 0.13	1,360	1	1,539	1	1,750	Green	Spreadsheet pass
Crematoria	Non-residential	\$ 9,872	30	5,537	\$ -	\$ 0.17	0	-	-	-	-	Green	Spreadsheet pass
Coin-Op Gas Clothes Dryer	Non-residential	\$ 613	11	419	\$ 144	\$ 0.16	1,257	3	1,261	3	1,296	Green	Spreadsheet pass
Wall insulation	Non-residential	\$ 0	30	0	\$ -	\$ 0.17	1	5	1	5	1	Green	Spreadsheet pass
Pizza / Deck Oven	Non-residential	\$ 466	20	256	\$ -	\$ 0.20	256	1	257	1	264	Green	Spreadsheet pass
Programmable Thermostat	Residential	\$ 25	20	12	\$ -	\$ 0.22	309	28	350	32	398	Green	Spreadsheet pass
Conveyer Broiler	Non-residential	\$ 1,182	15	661	\$ -	\$ 0.22	661	1	663	1	682	Green	Spreadsheet pass
Roof insulation	Non-residential	\$ 0	30	0	\$ -	\$ 0.24	1	5	1	5	1	Green	Spreadsheet pass
Cheesemelter	Non-residential	\$ 408	15	203	\$ -	\$ 0.25	203	1	204	1	209	Green	Spreadsheet pass
Warm Up Control	Non-residential	\$ 300	10	180	\$ -	\$ 0.26	180	1	180	1	185	Green	Spreadsheet pass
Salamander	Non-residential	\$ 300	15	137	\$ -	\$ 0.27	137	1	137	1	141	Green	Spreadsheet pass
Demand control ventilation	Non-residential	\$ 1	20	0	\$ -	\$ 0.30	1	3	1	3	1	Green	Spreadsheet pass
Tankless Water Heater	Non-residential	\$ 600	20	211	\$ -	\$ 0.31	1,055	5	1,058	5	1,088	Green	Spreadsheet pass
Comm. Gas Clothes Dryer	Non-residential	\$ 1,586	11	740	\$ -	\$ 0.31	740	1	742	1	763	Green	Spreadsheet pass
Boiler	Non-residential	\$ 11,928	20	3,854	\$ -	\$ 0.34	3,854	1	3,867	1	3,975	Green	Spreadsheet pass
Condensing Storage Water Heater	Non-residential	\$ 848	15	308	\$ -	\$ 0.34	308	1	309	1	318	Green	Spreadsheet pass
Kiln	Non-residential	\$ 199	30	49	\$ -	\$ 0.39	0	-	-	-	-	Green	Spreadsheet pass
Fireplace dampers	Residential	\$ 500	15	150	\$ -	\$ 0.41	3,748	28	4,243	32	4,823	Green	Spreadsheet pass
Vent Damper	Non-residential	\$ 304	12	101	\$ -	\$ 0.42	0	-	-	-	-	Green	Spreadsheet pass
High efficiency boiler	Residential	\$ 160	20	40	\$ -	\$ 0.44	40	1	45	1	51	Green	Spreadsheet pass
High efficiency space heater	Residential	\$ 275	20	64	\$ -	\$ 0.47	322	6	364	6	414	Green	Spreadsheet pass
Condensing Boiler	Non-residential	\$ 36,701	20	7,524	\$ -	\$ 0.53	7,524	1	7,549	1	7,760	Green	Spreadsheet pass
Recirculation Controls	Non-residential	\$ 1,311	10	386	\$ -	\$ 0.53	386	1	387	1	398	Green	Spreadsheet pass
Boiler Tune-up	Non-residential	\$ 100	5	50	\$ -	\$ 0.51	50	1	50	1	51	Green	Spreadsheet pass
Charbroiler	Non-residential	\$ 1,313	15	298	\$ -	\$ 0.55	298	1	299	1	307	Green	Spreadsheet pass
Duct sealing - SFH	Residential	\$ 500	20	94	\$ -	\$ 0.58	4,687	57	5,305	64	6,031	Green	Spreadsheet pass
High efficiency boiler	Residential	\$ 160	20	30	\$ -	\$ 0.58	30	1	34	1	39	Green	Spreadsheet pass
Condensing Tank Water Heater	Non-residential	\$ 3,855	15	771	\$ -	\$ 0.62	771	1	774	1	795	Green	Spreadsheet pass
BBQ / Rotisserie Oven	Non-residential	\$ 1,003	15	198	\$ -	\$ 0.63	198	1	199	1	204	Green	Spreadsheet pass
Duct sealing - MFH	Residential	\$ 300	20	47	\$ -	\$ 0.70	235	6	266	6	302	Green	Spreadsheet pass
Duct commissioning	Residential	\$ 300	20	45	\$ -	\$ 0.73	449	11	508	13	578	Green	Spreadsheet pass
Recirculation Controls	Non-residential	\$ 200	25	26	\$ -	\$ 0.77	26	1	26	1	27	Green	Spreadsheet pass
High efficiency furnace	Residential	\$ 450	20	64	\$ -	\$ 0.76	64,400	1,132	72,895	1,287	82,865	Green	Spreadsheet pass
Occupancy sensors for PTAC units	Non-residential	\$ 200	20	26	\$ -	\$ 0.86	0	-	-	-	-	Green	Spreadsheet pass
Tankless water heater	Residential	\$ 700	15	102	\$ -	\$ 0.85	7,650	85	8,659	97	9,843	Yellow	SENDOUT pass
Convection Oven	Non-residential	\$ 2,696	20	324	\$ -	\$ 0.91	324	1	325	1	334	Yellow	SENDOUT pass
Rack / Tray Oven	Non-residential	\$ 9,709	20	1,013	\$ -	\$ 1.05	1,013	1	1,016	1	1,045	Yellow	SENDOUT pass
Infrared Fryer Griddle	Non-residential	\$ 2,146	20	194	\$ -	\$ 1.21	194	1	195	1	200	Yellow	SENDOUT pass
Combi Oven	Non-residential	\$ 1,667	15	164	\$ -	\$ 1.26	164	1	165	1	169	Yellow	SENDOUT pass
Power Burner	Non-residential	\$ 913	12	101	\$ -	\$ 1.26	101	1	101	1	104	Yellow	SENDOUT pass
Gas Pool Heater	Non-residential	\$ 3,364	20	280	\$ -	\$ 1.32	280	1	280	1	288	Yellow	SENDOUT pass
Gas Pool Heater, SFH	Residential	\$ 3,364	20	280	\$ -	\$ 1.32	280	1	316	1	360	Yellow	SENDOUT pass
Gas Pool Heater, MFH	Residential	\$ 3,364	20	280	\$ -	\$ 1.32	280	1	316	1	360	Yellow	SENDOUT pass
Energy recovery ventilation	Non-residential	\$ 4	20	0	\$ -	\$ 1.33	2	5	2	5	2	Yellow	SENDOUT pass
Infrared General Purpose Fryer	Non-residential	\$ 3,186	15	300	\$ -	\$ 1.32	300	1	301	1	309	Yellow	SENDOUT pass
Revolving Oven	Non-residential	\$ 4,870	20	364	\$ -	\$ 1.46	364	1	365	1	375	Yellow	SENDOUT pass
Energy Star Home	Residential	\$ 2,870	31	145	\$ -	\$ 1.90	7,272	57	8,231	64	9,357	Yellow	SENDOUT fail
Exterior doors	Residential	\$ 100	30	5	\$ -	\$ 1.95	0	0	0	0	0	Yellow	SENDOUT pass
Exterior doors	Residential	\$ 100	30	5	\$ -	\$ 1.95	0	0	0	0	0	Yellow	SENDOUT pass

	CY 2008 therms	CY 2009 therms
SENDOUT-accepted residential programs	123,491	140,381
SENDOUT-accepted non-residential programs	26,498	27,240
Estimated site-specific acquisition	56,808	58,399
Adjustment for non-res program duplication	(2,650)	(2,724)
Estimated pre-rinse sprayer acquisition	70,400	-
Enhanced commercial / industrial delivery	75,000	75,000
	<u>349,547</u>	<u>298,296</u>

**Oregon Public Utility Commission IRP Standard and
Guidelines**

Appendix 6.11

Appendix 6.11 Oregon Public Utility Commission IRP Standard and Guidelines

Guideline Number	Description of Requirement	Fulfillment of Requirement
Guideline 1: Substantive Requirements		
1.a.1	All resources must be evaluated on a consistent and comparable basis.	All resource options including Demand side and Supply side are modeled in SENDOUT utilizing the same common assumptions, approach and methodology.
1.a.2	All known resources for meeting the utility's load should be considered, including supply-side options which focus on the generation, purchase and transmission of power – or gas purchases, transportation, and storage – and demand-side options which focus on conservation and demand response.	Avista considered a range of resources including demand-side management, distribution system enhancements, interstate pipeline transportation, transport backhauls, and storage options including liquefied natural gas. Chapter 3 and Appendix 6.10 and 6.11 documents Avista's demand-side management resources considered. Chapter 5 and Appendix 6.4 documents supply-side resources. Chapter 6 documents how Avista developed and assessed each of these resources.
1.a.3	Utilities should compare different resource fuel types, technologies, lead times, in-service dates, durations and locations in portfolio risk modeling.	Avista considered various combinations of technologies, lead times, in-service dates, durations, and locations. Chapter 6 provides details about the modeling methodology and results. Chapter 5 describes resource attributes and Appendix 6.4 summarizes the resources' lead times, in-service dates and locations.
1.a.4	Consistent assumptions and methods should be used for evaluation of all resources.	Appendix 6.1 documents general assumptions used in Avista's SENDOUT® modeling software. All portfolio resources both demand and supply side were evaluated within SENDOUT using the same sets of inputs.
1.a.5	The after-tax marginal weighted-average cost of capital (WACC) should be used to discount all future resource costs.	Avista applied its after-tax WACC of 4.18% to discount all future resource costs. (See general assumptions at Appendix 6.1)
1.b.1	Risk and uncertainty must be considered. Electric utilities only	Not Applicable
1.b.2	Risk and uncertainty must be considered. Natural gas utilities should consider demand (peak, swing and base-load), commodity supply and price, transportation availability and price, and costs to comply with any regulation of greenhouse gas (GHG) emissions.	<p>After considering the influencers on demand, Avista focused on three scenarios (Table 1.1) for SENDOUT modeling purposes. Demand coefficients were developed for base, shoulder and winter demand (Appendix 2.3) while peak demand was contemplated through modeling a weather planning standard of the coldest day on record (see heating degree day data in Appendix 6.1).</p> <p>Avista evaluated several price forecasts (Figure 6.12) and selected high, medium and low price scenarios for modeling purposes (Figures 6.13 & 6.14).</p>

Guideline Number	Description of Requirement	Fulfillment of Requirement
		<p>Avista also ran Monte Carlo simulations using VectorGas™ for price and weather variables to analyze demand sensitivity and resulting resource timing and selection.</p> <p>Avista considered potential GHG emissions regulatory compliance costs in Chapter 7.</p>
	<p>Utilities should identify in their plans any additional sources of risk and uncertainty.</p>	<p>Avista evaluated additional risks and uncertainties, including the level of DSM achievable potential (Chapter 3). See Chapter 6 for a discussion of the other sources of risk and uncertainty considered but not necessarily modeled for scenario and stochastic risk analysis.</p>
1c	<p>The primary goal must be the selection of a portfolio of resources with the best combination of expected costs and associated risks and uncertainties for the utility and its customers.</p>	<p>Gas utilities are different from electric utilities in the number and combinations of resources available. Gas utilities do not have multiple portfolios of resources. Therefore, Avista considers a resource mix of all the supply side and demand side options as our alternative to portfolios. Avista inputs the supply side and demand side measures into SENDOUT® and allows the model to pick a suite of resources. Each scenario has a different resource mix based on the assumptions of the scenario. Avista evaluated cost/risk tradeoffs for each of the scenarios considered. For example, we considered large scale LNG but after considering the lead time, cost, and assessment of the risks we determined it was not a viable option at this time.</p> <p>See Chapter 6 for the company's risk analysis and determination of the preferred resource mix.</p>
	<p>The planning horizon for analyzing resource choices should be at least 20 years and account for end effects. Utilities should consider all costs with a reasonable likelihood of being included in rates over the long term, which extends beyond the planning horizon and the life of the resource.</p>	<p>Avista used a 20-year study period for portfolio modeling. Avista contemplated possible costs beyond the planning period that could affect rates including end effects such as infrastructure decommission costs and concluded there were no significant costs reasonably likely to impact rates under different resource selection scenarios.</p>
	<p>Utilities should use present value of revenue requirement (PVR) as the key cost metric. The plan should include analysis of current and estimated future costs of all long-lived resources such as power plants, gas storage facilities and pipelines, as well as all short-lived resources such as gas supply and short-term power purchases.</p>	<p>Avista's SENDOUT modeling software utilizes a PVR cost metric methodology applied to both long and short-lived resources.</p>
	<p>To address risk, the plan should include at a minimum: 1) Two measures of PVR risk: one</p>	<p>Avista, through its VectorGas software, modeled 200 scenarios around varying gas price inputs via Monte Carlo iterations developing a distribution of Total 20</p>

Guideline Number	Description of Requirement	Fulfillment of Requirement
	that measures the variability of costs and one that measures the severity of bad outcomes. 2) Discussion of the proposed use and impact on costs and risks of physical and financial hedging.	year cost estimates utilizing SENDOUT's PVRM methodology. Chapter 6 further describes this analysis while Figure 6.15 summarizes this analysis graphically. The variability of costs is plotted against the Expected Case while the scenarios beyond the 95 th percentile capture the severity of bad outcomes. Chapter 5 discusses Avista's physical and financial hedging methodology.
	The utility should explain in its plan how its resource choices appropriately balance cost and risk.	Chapter 6 and Appendix 6.7 summarizes the results of Avista's cost/risk tradeoff analysis, and describes what criteria the company used to determine what resource combinations provide an appropriate balance between cost and risk.
1d	The plan must be consistent with the long-run public interest as expressed in Oregon and federal energy policies.	Avista considered current and expected state and federal energy policies in portfolio modeling. Chapter 6 describes the decision process used to derive portfolios, which includes consideration of state resource policy directions.
Guideline 2: Procedural Requirements		
2a	The public, including other utilities, should be allowed significant involvement in the preparation of the IRP. Involvement includes opportunities to contribute information and ideas, as well as to receive information. Parties must have an opportunity to make relevant inquiries of the utility formulating the plan.	Chapter 1 provides an overview of the public process and documents the details on public meetings held for the 2007 IRP.
2b	While confidential information must be protected, the utility should make public, in its plan, any non-confidential information that is relevant to its resource evaluation and action plan.	The entire IRP, as well as the Technical Advisory Committee process, includes all of the non-confidential information the company used for portfolio evaluation and selection. Avista also provided stakeholders with non-confidential information to support public meeting discussions via email. The draft plan was also made available on Avista's website for public viewing during this period.
2c	The utility must provide a draft IRP for public review and comment prior to filing a final plan with the Commission.	Avista distributed a draft IRP document for external review to TAC members on September 6, 2007 and requested comments by October 31, 2007. The draft plan was also made available on Avista's website for public viewing during this period.
Guideline 3: Plan Filing, Review and Updates		
3a	Utility must file an IRP within two years of its previous IRP acknowledgement order.	This Plan complies with this requirement as the 2006 Natural Gas IRP was acknowledged on 9/16/06.
3b	Utility must present the results of its filed plan to	Avista will adhere to this guideline.

Guideline Number	Description of Requirement	Fulfillment of Requirement
3c - g	<p>the Commission at a public meeting prior to the deadline for written public comment.</p> <p>These guides discuss Commission comments and acknowledgement and the IRP annual update.</p>	Not applicable.
Guideline 4: Plan Components		
4a	<p>At a minimum, the plan must include the following elements:</p> <p>An explanation of how the utility met each of the substantive and procedural requirements.</p>	<p>The purpose of this table is to comply with this guideline by providing an overview of how Avista met each of the substantive and procedural requirements for a natural gas IRP.</p>
4b	<p>Analysis of high and low load growth scenarios in addition to stochastic load risk analysis with an explanation of major assumptions.</p>	<p>Avista developed low, medium and high demand growth forecasts for scenario analysis. Stochastic variability of demand was also captured in the risk analysis. Chapter 2 describes the demand forecast data and Chapter 6 provides the scenario and risk analysis results. Appendix 6.1 details major assumptions.</p>
4c	<p>For electric utilities only</p>	Not Applicable
4d	<p>A determination of the peaking, swing and base-load gas supply and associated transportation and storage expected for each year of the plan, given existing resources; and identification of gas supplies (peak, swing and base-load), transportation and storage needed to bridge the gap between expected loads and resources.</p>	<p>This plan complies with the requirement with resource summaries documented in Figure 1.3 (and duplicated in Figure 6.17) for the expected case. Appendix 6.5 summarizes the high and low demand scenarios. Additionally, figure 6.21 shows that the need for resources primarily occurs on and around the peak day. Appendix 6.6 summarizes the high and low case.</p> <p>Appendix 6.4 details all the supply side options considered and Appendix 6.9 and 6.10 provides details on the demand side options. Table 6.6 identifies the resources selected by the model for the expected case, and Appendix 6.7 details the resources for the high and low cases.</p>
4e	<p>Identification and estimated costs of all supply-side and demand-side resource options, taking into account anticipated advances in technology</p>	<p>Chapter 3 and Appendix 6.9 and 6.10 identify the demand-side resources and costs included in this IRP. Chapter 6 and Appendix 6.4 identify the supply-side resources and costs.</p>
4f	<p>Analysis of measures the utility intends to take to provide reliable service, including cost-risk tradeoffs.</p>	<p>Chapter 4 discusses the modeling tools, customer growth forecasting and cost-risk considerations used to maintain and plan a reliable gas delivery system. The Chapter also captures a summary of the reliability analysis process demonstrated at the second TAC meeting.</p>
4g	<p>Identification of key assumptions about the future</p>	<p>Chapter 5 discusses the diversified infrastructure and multiple supply basin approach that acts to mitigate certain reliability risks.</p> <p>Appendix 6.1 and Chapter 6 describe the key assumptions and alternative</p>

Guideline Number	Description of Requirement	Fulfillment of Requirement
4h	(e.g. fuel prices and environmental compliance costs) and alternative scenarios considered.	scenarios used in this IRP.
4i	Construction of a representative set of resource portfolios to test various operating characteristics, resource types, fuels and sources, technologies, lead times, in-service dates, durations and general locations - system-wide or delivered to a specific portion of the system.	This Plan documents the development and results for resource options evaluated in this IRP (see also Appendix 6.4, 6.9, and 6.10). See also guideline 1c for further discussion on resource mix alternatives to portfolios.
4j	Evaluation of the performance of the candidate portfolios over the range of identified risks and uncertainties.	We evaluated our candidate portfolio by performing stochastic analysis using VectorGas™ varying price under 200 different scenarios. Additionally, we test the portfolio of options with the use of SENDOUT® under deterministic scenarios where demand and price vary. For resources selected, we assess other risk factors such as varying lead times required and potential for cost overruns outside of the amounts included in the modeling assumptions.
4k	Results of testing and rank ordering of the portfolios by cost and risk metric, and interpretation of those results	Avista's four distinct geographic Oregon service territories limit many resource option synergies which inherently reduces available portfolio options. Feasibility uncertainty, lead time variability and uncertain cost escalation around certain resource options also reduce reasonably viable options. Chapter 6 describes resource options reviewed including discussion on uncertainties in lead times and costs as well as viability and resource availability (e.g. LNG). Appendix 6.4 summarizes the potential resource options identifying investment and variable costs, asset availability and lead time requirements while results of resources selected are identified in Table 6.6 as well as graphically presented in Figure 6.19 for the expect case and Appendix 6.5 for High and Low demand cases.
4l	Analysis of the uncertainties associated with each portfolio evaluated	See the responses to 1.b above.
4m	Selection of a portfolio that represents the best combination of cost and risk for the utility and its customers	Avista evaluated cost/risk tradeoffs for each of the risk analysis portfolios considered. Chapter 6 shows the company's portfolio risk analysis, as well as the process and determination of the preferred portfolio.
4n	Identification and explanation of any inconsistencies of the selected portfolio with any state and federal energy policies that may affect a utility's plan and any barriers to implementation	This IRP is presumed to have no inconsistencies.
4n	An action plan with resource activities the utility intends to undertake over the next two to four years to acquire the identified resources,	Chapter 8 presents the 2008-09 IRP Action Plan with focus on the following areas: <ul style="list-style-type: none"> • Modeling

Guideline Number	Description of Requirement	Fulfillment of Requirement
Guideline 5: Transmission		
5	<p>regardless of whether the activity was acknowledged in a previous IRP, with the key attributes of each resource specified as in portfolio testing.</p> <p>Portfolio analysis should include costs to the utility for the fuel transportation and electric transmission required for each resource being considered. In addition, utilities should consider fuel transportation and electric transmission facilities as resource options, taking into account their value for making additional purchases and sales, accessing less costly resources in remote locations, acquiring alternative fuel supplies, and improving reliability.</p>	<ul style="list-style-type: none"> • Supply/capacity • Forecasting • Regulatory communication • DSM Goals <p>Not applicable to Avista's gas utility operations.</p>
Guideline 6: Conservation		
6a	<p>Each utility should ensure that a conservation potential study is conducted periodically for its entire service territory.</p>	<p>In our 2006 IRP, Avista retained the services of RLW Analytics to provide data regarding cost, energy-efficiency and technical potential characteristics for DM measures. Using the information from the work of RLW Analytics as a starting point and incorporating any new information, Avista completes a comprehensive assessment of the potential for utility acquisition of energy-efficiency resources into the regularly-scheduled Integrated Resource Planning process.</p>
6b	<p>To the extent that a utility controls the level of funding for conservation programs in its service territory, the utility should include in its action plan all best cost/risk portfolio conservation resources for meeting projected resource needs, specifying annual savings targets.</p>	<p>In Avista's Action Plan in Chapter 8 we include our conservation programs annual savings targets and reference to Appendix 6.10 for the program's specific details.</p> <p>A discussion on the treatment of conservation programs is included in Chapter 3 while selection methodology is documented in Chapter 6.</p>
6c	<p>To the extent that an outside party administers conservation programs in a utility's service territory at a level of funding that is beyond the utility's control, the utility should: 1) determine the amount of conservation resources in the best cost/ risk portfolio without regard to any limits on funding of conservation programs; and 2) identify</p>	<p>Not applicable. See the response for 6.b above.</p>

Guideline Number	Description of Requirement	Fulfillment of Requirement
	the preferred portfolio and action plan consistent with the outside party's projection of conservation acquisition.	
Guideline 7: Demand Response		
7	Plans should evaluate demand response resources, including voluntary rate programs, on par with other options for meeting energy, capacity, and transmission needs (for electric utilities) or gas supply and transportation needs (for natural gas utilities).	<p>Avista has periodically evaluated conceptual approaches to meeting capacity constraints using demand-response and similar voluntary programs. In the past these have failed to be the most cost-effective response to the constraint.</p> <p>Avista is in the process of developing a separate natural gas distribution capacity value as part of the overall avoided cost structure in anticipation of improvements in technology that may allow for the cost-effective use of demand-response options. Avista is currently testing an electric demand-response technology that may be expanded to incorporate natural gas demand-response if suitable equipment can be acquired.</p>
Guideline 8: Environmental Costs		
8	Utilities should include, in their base-case analyses, the regulatory compliance costs they expect for CO ₂ , NO _x , SO ₂ , and Hg emissions. Utilities should analyze the range of potential CO ₂ regulatory costs in Order No. 93-695, from \$0 - \$40 (1990\$). In addition, utilities should perform sensitivity analysis on a range of reasonably possible cost adders for NO _x , SO ₂ , and Hg, if applicable.	<p>Avista's current direct gas distribution system infrastructure does not result in any CO₂, NO_x, SO₂, or Hg emissions. Upstream gas system infrastructure (pipelines, storage facilities, and gathering systems) do produce CO₂ emissions via compressors used to pressurize and move gas throughout the system.</p> <p>The Environmental Externalities discussion in Chapter 7 describes our process for addressing these costs.</p>
Guideline 9: Direct Access Loads		
9	An electric utility's load-resource balance should exclude customer loads that are effectively committed to service by an alternative electricity supplier.	Not applicable to Avista's gas utility operations.
Guideline 10: Multi-state utilities		
10	Multi-state utilities should plan their generation and transmission systems, or gas supply and delivery, on an integrated-system basis that achieves a best cost/risk portfolio for all their retail customers.	The 2007 IRP conforms to the multi-state planning approach.

Guideline Number	Description of Requirement	Fulfillment of Requirement
Guideline 11: Reliability		
11	<p>Electric utilities should analyze reliability within the risk modeling of the actual portfolios being considered. Loss of load probability, expected planning reserve margin, and expected and worst-case unserved energy should be determined by year for top-performing portfolios. Natural gas utilities should analyze, on an integrated basis, gas supply, transportation, and storage, along with demand-side resources, to reliably meet peak, swing, and base-load system requirements. Electric and natural gas utility plans should demonstrate that the utility's chosen portfolio achieves its stated reliability, cost and risk objectives.</p>	<p>Avista analyzes on an integrated basis gas supply, transportation, and storage, along with demand-side resources to reliably meet peak, swing, and base-load system requirements. As stated in Chapter 5, Avista's strategy is to reliably serve our customers on all days, including the peak day. To emphasize our commitment to reliability our assessment of resources favors firm (contractually dependable) resources. Acquisition costs of non-firm resources may be less costly. However, after consideration of risk, these assets do not meet our reliability requirements.</p>
Guideline 12: Distributed Generation		
12	<p>Electric utilities should evaluate distributed generation technologies on par with other supply-side resources and should consider, and quantify where possible, the additional benefits of distributed generation.</p>	<p>Not applicable to Avista's gas utility operations.</p>
Guideline 13: Resource Acquisition		
13a	<p>An electric utility should: identify its proposed acquisition strategy for each resource in its action plan; Assess the advantages and disadvantages of owning a resource instead of purchasing power from another party; identify any Benchmark Resources it plans to consider in competitive bidding.</p>	<p>Not applicable to Avista's gas utility operations.</p>
13b	<p>Natural gas utilities should either describe in the IRP their bidding practices for gas supply and transportation, or provide a description of those practices following IRP acknowledgment.</p>	<p>This information will be provided following IRP acknowledgment.</p>

Avoided Cost Determination

Appendix 7.1

Appendix 7.1 - SENDOUT® Marginal Cost Determination by Region - Summary

Expected Case

Figures Include Transportation and Storage, Excludes Environmental Externalities - 2007\$/Dtt

Year	Year of Forecast	Annual						Winter					
		Klamath Falls	La Grande	Medford	Roseburg	OR Total	WA/ID	Klamath Falls	La Grande	Medford	Roseburg	OR Total	WA/ID
2007/2008	1	\$7.37	\$7.31	\$7.29	\$7.31	\$7.32	\$7.29	\$7.99	\$7.94	\$7.85	\$7.94	\$7.93	\$7.86
2008/2009	2	\$7.10	\$6.94	\$6.99	\$6.94	\$6.99	\$6.94	\$8.03	\$7.72	\$7.80	\$7.72	\$7.82	\$7.81
2009/2010	3	\$6.62	\$6.48	\$6.51	\$6.48	\$6.52	\$6.47	\$7.51	\$7.25	\$7.31	\$7.25	\$7.33	\$7.29
2010/2011	4	\$6.15	\$6.05	\$6.06	\$6.05	\$6.08	\$6.12	\$6.95	\$6.75	\$6.78	\$6.75	\$6.81	\$6.75
2011/2012	5	\$5.79	\$5.50	\$5.64	\$5.50	\$5.61	\$5.80	\$6.42	\$5.78	\$6.10	\$5.78	\$6.02	\$6.34
2012/2013	6	\$5.65	\$5.15	\$5.39	\$5.15	\$5.34	\$5.51	\$6.23	\$5.26	\$5.74	\$5.26	\$5.62	\$6.13
2013/2014	7	\$5.73	\$5.30	\$5.54	\$5.30	\$5.47	\$5.65	\$6.26	\$5.36	\$5.84	\$5.36	\$5.71	\$6.16
2014/2015	8	\$5.91	\$5.45	\$5.70	\$5.45	\$5.62	\$5.78	\$6.44	\$5.55	\$6.03	\$5.55	\$5.89	\$6.34
2015/2016	9	\$5.97	\$5.55	\$5.79	\$5.55	\$5.72	\$5.93	\$6.54	\$5.69	\$6.15	\$5.69	\$6.02	\$6.47
2016/2017	10	\$6.00	\$5.62	\$5.84	\$5.62	\$5.77	\$5.86	\$6.57	\$5.81	\$6.22	\$5.81	\$6.10	\$6.50
2017/2018	11	\$6.02	\$5.64	\$5.86	\$5.64	\$5.79	\$5.86	\$6.60	\$5.83	\$6.25	\$5.83	\$6.13	\$6.53
2018/2019	12	\$6.16	\$5.80	\$6.01	\$5.80	\$5.94	\$6.05	\$6.72	\$6.00	\$6.39	\$6.00	\$6.28	\$6.63
2019/2020	13	\$6.32	\$5.96	\$6.17	\$5.96	\$6.10	\$6.20	\$6.89	\$6.18	\$6.57	\$6.18	\$6.45	\$6.80
2020/2021	14	\$6.46	\$6.15	\$6.33	\$6.15	\$6.27	\$6.32	\$7.04	\$6.46	\$6.78	\$6.46	\$6.68	\$6.95
2021/2022	15	\$6.58	\$6.27	\$6.46	\$6.48	\$6.45	\$6.47	\$7.17	\$6.60	\$6.92	\$7.10	\$6.95	\$7.09
2022/2023	16	\$6.69	\$6.40	\$6.58	\$6.61	\$6.57	\$6.57	\$7.30	\$6.75	\$7.06	\$7.26	\$7.09	\$7.19
2023/2024	17	\$6.81	\$6.54	\$6.70	\$6.95	\$6.75	\$6.69	\$7.42	\$6.92	\$7.21	\$7.92	\$7.37	\$7.31
2024/2025	18	\$6.92	\$6.67	\$6.83	\$7.09	\$6.88	\$6.81	\$7.54	\$7.09	\$7.35	\$8.10	\$7.52	\$7.44
2025/2026	19	\$7.05	\$6.85	\$6.98	\$7.26	\$7.03	\$6.93	\$7.67	\$7.35	\$7.55	\$8.36	\$7.73	\$7.57
2026/2027	20	\$7.15	\$6.98	\$7.09	\$7.60	\$7.20	\$7.04	\$7.78	\$7.52	\$7.69	\$9.02	\$8.01	\$7.69

Appendix 7.1 - SENDOUT® Marginal Cost Determination by Region - Annual

Expected Case

Figures Include Transportation and Storage, Excludes Environmental Externalities - 2007\$/Dth

Year	Month	Klam Falls	La Grande	Medford	Roseburg	OR Total	WA/ID
2007	Nov	6.65	6.48	6.53	6.48	6.54	6.46
2007	Dec	7.48	8.01	7.43	8.01	7.73	7.66
2008	Jan	8.73	8.58	8.54	8.58	8.61	8.53
2008	Feb	8.70	8.42	8.48	8.42	8.50	8.42
2008	Mar	8.39	8.20	8.26	8.20	8.26	8.20
2008	Apr	6.75	6.66	6.71	6.66	6.70	6.71
2008	May	6.98	6.88	6.93	6.88	6.92	6.86
2008	Jun	6.61	6.53	6.57	6.53	6.56	6.68
2008	Jul	7.11	7.16	7.11	7.16	7.13	7.03
2008	Aug	7.12	7.03	7.07	7.03	7.06	7.06
2008	Sep	6.79	6.71	6.75	6.71	6.74	6.85
2008	Oct	7.12	7.02	7.07	7.02	7.06	7.06
	Avg.	7.37	7.31	7.29	7.31	7.32	7.29
2008	Nov	7.75	7.53	7.59	7.53	7.60	7.53
2008	Dec	8.23	7.53	7.79	7.53	7.77	8.04
2009	Jan	8.17	8.04	8.00	8.04	8.06	7.98
2009	Feb	8.15	7.85	7.91	7.85	7.94	7.85
2009	Mar	7.84	7.65	7.71	7.65	7.71	7.65
2009	Apr	6.20	6.12	6.16	6.12	6.15	5.44
2009	May	6.47	6.38	6.43	6.38	6.42	6.38
2009	Jun	6.17	6.10	6.14	6.10	6.13	6.24
2009	Jul	6.63	6.68	6.63	6.68	6.66	6.56
2009	Aug	6.64	6.57	6.60	6.57	6.60	6.59
2009	Sep	6.34	6.26	6.30	6.26	6.29	6.39
2009	Oct	6.65	6.57	6.61	6.57	6.60	6.60
	Avg.	7.11	6.94	6.99	6.94	6.99	6.94
2009	Nov	7.26	7.03	7.10	7.03	7.11	7.03
2009	Dec	7.70	7.24	7.39	7.24	7.39	7.52
2010	Jan	7.63	7.51	7.47	7.51	7.53	7.45
2010	Feb	7.62	7.33	7.39	7.33	7.42	7.32
2010	Mar	7.33	7.14	7.20	7.14	7.20	7.14
2010	Apr	5.78	5.70	5.74	5.70	5.73	5.12
2010	May	6.03	5.95	5.99	5.95	5.98	5.95
2010	Jun	5.77	5.70	5.73	5.70	5.72	5.82
2010	Jul	6.18	6.23	6.18	6.23	6.21	6.12
2010	Aug	6.01	5.94	5.97	5.94	5.97	6.02
2010	Sep	5.91	5.84	5.88	5.84	5.87	5.97
2010	Oct	6.21	6.13	6.17	6.13	6.16	6.16
	Avg.	6.62	6.48	6.52	6.48	6.52	6.47
2010	Nov	6.77	6.56	6.62	6.56	6.62	6.56
2010	Dec	7.18	6.98	7.00	6.98	7.03	7.03
2011	Jan	7.03	6.92	6.87	6.92	6.93	6.86
2011	Feb	7.02	6.74	6.80	6.74	6.82	6.74
2011	Mar	6.76	6.57	6.62	6.57	6.63	6.56
2011	Apr	5.33	5.26	5.29	5.26	5.28	5.35
2011	May	5.57	5.50	5.54	5.50	5.53	5.47
2011	Jun	5.60	5.53	5.56	5.53	5.56	5.55
2011	Jul	5.69	5.86	5.69	5.86	5.77	6.52
2011	Aug	5.73	5.66	5.69	5.66	5.68	5.69
2011	Sep	5.43	5.37	5.40	5.37	5.39	5.49
2011	Oct	5.72	5.64	5.68	5.64	5.67	5.67
	Avg.	6.15	6.05	6.06	6.05	6.08	6.12
2011	Nov	6.13	6.02	6.08	6.02	6.06	6.02
2011	Dec	6.45	3.70	5.09	3.70	4.74	6.46
2012	Jan	6.58	6.62	6.58	6.62	6.60	6.56
2012	Feb	6.56	6.32	6.44	6.32	6.41	6.36
2012	Mar	6.39	6.29	6.34	6.29	6.33	6.28
2012	Apr	5.09	5.02	5.06	5.02	5.05	4.93
2012	May	5.30	5.23	5.26	5.23	5.25	5.23
2012	Jun	5.35	5.29	5.32	5.29	5.31	5.31
2012	Jul	5.44	5.61	5.44	5.61	5.52	6.27
2012	Aug	5.48	5.41	5.44	5.41	5.44	5.44
2012	Sep	5.21	5.14	5.17	5.14	5.17	5.26
2012	Oct	5.46	5.39	5.43	5.39	5.42	5.41
	Avg.	5.79	5.50	5.64	5.50	5.61	5.79

Appendix 7.1 - SENDOUT® Marginal Cost Determination by Region - Annual

Expected Case

Figures Include Transportation and Storage, Excludes Environmental Externalities - 2007\$/Dth

Year	Month	Klam Falls	La Grande	Medford	Roseburg	OR Total	WA/ID
2012	Nov	5.88	5.77	5.82	5.77	5.81	5.77
2012	Dec	6.18	1.85	4.02	1.85	3.47	6.14
2013	Jan	6.44	6.47	6.44	6.47	6.45	6.42
2013	Feb	6.42	6.16	6.29	6.16	6.25	6.20
2013	Mar	6.26	6.14	6.20	6.14	6.19	6.14
2013	Apr	5.26	4.42	4.84	4.42	4.73	3.51
2013	May	5.21	5.12	5.16	5.12	5.15	5.12
2013	Jun	4.98	4.90	4.94	4.90	4.93	5.01
2013	Jul	5.32	5.50	5.32	5.50	5.41	6.06
2013	Aug	5.37	5.30	5.33	5.30	5.32	5.33
2013	Sep	5.10	5.03	5.06	5.03	5.05	5.14
2013	Oct	5.41	5.25	5.33	5.25	5.31	5.28
	Avg.	5.65	5.16	5.40	5.16	5.34	5.51
2013	Nov	5.75	5.63	5.72	5.63	5.68	5.63
2013	Dec	6.05	2.11	4.11	2.11	3.60	6.02
2014	Jan	6.56	6.61	6.62	6.61	6.60	6.55
2014	Feb	6.55	6.29	6.46	6.29	6.40	6.34
2014	Mar	6.40	6.28	6.37	6.28	6.33	6.28
2014	Apr	5.37	5.02	5.22	5.02	5.16	4.44
2014	May	5.32	5.23	5.30	5.23	5.27	5.23
2014	Jun	5.10	5.00	5.07	5.00	5.04	5.12
2014	Jul	5.44	5.61	5.49	5.61	5.54	6.17
2014	Aug	5.48	5.41	5.47	5.41	5.44	5.44
2014	Sep	5.23	5.13	5.20	5.13	5.17	5.24
2014	Oct	5.53	5.37	5.48	5.37	5.44	5.40
	Avg.	5.73	5.31	5.54	5.31	5.47	5.65
2014	Nov	5.87	5.76	5.84	5.76	5.81	5.76
2014	Dec	6.18	2.29	4.27	2.29	3.76	6.15
2015	Jan	6.78	6.83	6.84	6.83	6.82	6.77
2015	Feb	6.77	6.51	6.67	6.51	6.62	6.55
2015	Mar	6.60	6.48	6.57	6.48	6.53	6.48
2015	Apr	5.55	4.77	5.19	4.77	5.07	4.01
2015	May	5.50	5.40	5.48	5.40	5.44	5.40
2015	Jun	5.28	5.17	5.25	5.17	5.21	5.29
2015	Jul	5.61	5.79	5.67	5.79	5.71	6.34
2015	Aug	5.65	5.59	5.65	5.59	5.62	5.61
2015	Sep	5.41	5.31	5.38	5.31	5.35	5.42
2015	Oct	5.71	5.54	5.65	5.54	5.61	5.57
	Avg.	5.91	5.45	5.71	5.45	5.63	5.78
2015	Nov	6.07	5.95	6.04	5.95	6.00	5.95
2015	Dec	6.37	2.50	4.47	2.50	3.96	6.38
2016	Jan	6.82	6.87	6.88	6.87	6.86	6.81
2016	Feb	6.81	6.69	6.78	6.69	6.74	6.68
2016	Mar	6.63	6.51	6.61	6.51	6.57	6.51
2016	Apr	5.58	5.20	5.42	5.20	5.35	5.01
2016	May	5.52	5.42	5.50	5.42	5.46	5.42
2016	Jun	5.32	5.20	5.28	5.20	5.25	5.31
2016	Jul	5.64	5.82	5.70	5.82	5.75	6.37
2016	Aug	5.69	5.62	5.68	5.62	5.65	5.64
2016	Sep	5.45	5.35	5.42	5.35	5.39	5.46
2016	Oct	5.74	5.57	5.69	5.57	5.64	5.60
	Avg.	5.97	5.56	5.79	5.56	5.72	5.93
2016	Nov	6.10	5.98	6.07	5.98	6.03	5.98
2016	Dec	6.42	2.98	4.72	2.98	4.27	6.42
2017	Jan	6.85	6.90	6.91	6.90	6.89	6.84
2017	Feb	6.84	6.73	6.82	6.73	6.78	6.72
2017	Mar	6.67	6.54	6.64	6.54	6.60	6.54
2017	Apr	5.62	5.23	5.46	5.23	5.39	4.44
2017	May	5.55	5.45	5.53	5.45	5.50	5.45
2017	Jun	5.33	5.25	5.32	5.25	5.29	5.41
2017	Jul	5.67	5.72	5.72	5.72	5.71	5.61
2017	Aug	5.71	5.66	5.70	5.66	5.68	5.70
2017	Sep	5.49	5.41	5.47	5.41	5.44	5.56
2017	Oct	5.78	5.66	5.75	5.66	5.71	5.67
	Avg.	6.00	5.63	5.84	5.63	5.77	5.86

Appendix 7.1 - SENDOUT® Marginal Cost Determination by Region - Annual

Expected Case

Figures Include Transportation and Storage, Excludes Environmental Externalities - 2007\$/Dth

Year	Month	Klam Falls	La Grande	Medford	Roseburg	OR Total	WA/ID
2017	Nov	6.12	6.00	6.09	6.00	6.05	6.00
2017	Dec	6.45	3.01	4.76	3.01	4.30	6.45
2018	Jan	6.87	6.93	6.94	6.93	6.92	6.87
2018	Feb	6.86	6.75	6.84	6.75	6.80	6.74
2018	Mar	6.70	6.57	6.67	6.57	6.63	6.57
2018	Apr	5.64	5.26	5.48	5.26	5.41	4.14
2018	May	5.57	5.47	5.55	5.47	5.52	5.47
2018	Jun	5.36	5.27	5.34	5.27	5.31	5.43
2018	Jul	5.70	5.75	5.75	5.75	5.74	5.64
2018	Aug	5.74	5.69	5.73	5.69	5.71	5.73
2018	Sep	5.51	5.44	5.50	5.44	5.47	5.58
2018	Oct	5.80	5.68	5.77	5.68	5.73	5.69
	Avg.	6.03	5.65	5.87	5.65	5.80	5.86
2018	Nov	6.15	6.03	6.12	6.03	6.08	6.03
2018	Dec	6.47	3.30	4.92	3.30	4.50	6.42
2019	Jan	7.06	7.11	7.12	7.11	7.10	7.04
2019	Feb	7.05	6.92	7.02	6.92	6.98	6.92
2019	Mar	6.87	6.74	6.84	6.74	6.80	6.74
2019	Apr	5.78	5.39	5.61	5.39	5.54	5.08
2019	May	5.72	5.61	5.69	5.61	5.66	5.61
2019	Jun	5.51	5.43	5.49	5.43	5.47	5.58
2019	Jul	5.84	5.90	5.90	5.90	5.88	5.78
2019	Aug	5.88	5.83	5.88	5.83	5.85	5.87
2019	Sep	5.71	5.60	5.67	5.60	5.64	5.74
2019	Oct	5.96	5.83	5.92	5.83	5.89	5.84
	Avg.	6.17	5.81	6.02	5.81	5.95	6.06
2019	Nov	6.32	6.19	6.29	6.19	6.25	6.19
2019	Dec	6.64	3.47	5.09	3.47	4.67	6.60
2020	Jan	7.23	7.28	7.29	7.28	7.27	7.22
2020	Feb	7.21	7.08	7.18	7.08	7.14	7.08
2020	Mar	7.04	6.91	7.01	6.91	6.96	6.90
2020	Apr	5.93	5.52	5.75	5.52	5.68	5.09
2020	May	5.86	5.76	5.84	5.76	5.80	5.76
2020	Jun	5.65	5.56	5.63	5.56	5.60	5.72
2020	Jul	5.98	6.05	6.05	6.05	6.03	5.93
2020	Aug	6.03	5.97	6.02	5.97	6.00	6.02
2020	Sep	5.85	5.74	5.81	5.74	5.78	5.88
2020	Oct	6.12	5.99	6.09	5.99	6.05	6.00
	Avg.	6.32	5.96	6.17	5.96	6.10	6.20
2020	Nov	6.46	6.33	6.43	6.33	6.39	6.33
2020	Dec	6.79	4.26	5.56	4.26	5.22	6.76
2021	Jan	7.39	7.44	7.45	7.44	7.43	7.38
2021	Feb	7.38	7.25	7.35	7.25	7.31	7.25
2021	Mar	7.19	7.06	7.16	7.06	7.12	7.06
2021	Apr	6.06	5.64	5.88	5.64	5.81	5.08
2021	May	5.98	5.88	5.96	5.88	5.92	5.88
2021	Jun	5.78	5.69	5.75	5.69	5.73	5.85
2021	Jul	6.12	6.18	6.18	6.18	6.17	6.06
2021	Aug	6.16	6.11	6.16	6.11	6.13	6.15
2021	Sep	5.97	5.86	5.94	5.86	5.91	6.01
2021	Oct	6.26	6.12	6.22	6.12	6.18	6.13
	Avg.	6.46	6.15	6.34	6.15	6.28	6.33
2021	Nov	6.60	6.48	6.57	6.48	6.53	6.48
2021	Dec	6.95	4.45	5.73	4.45	6.01	6.95
2022	Jan	7.52	7.57	7.58	7.57	7.56	7.50
2022	Feb	7.50	7.38	7.47	7.38	7.43	7.37
2022	Mar	7.32	7.19	7.29	7.19	7.25	7.18
2022	Apr	6.16	5.74	5.98	5.74	5.91	5.51
2022	May	6.10	5.99	6.07	5.99	6.04	5.99
2022	Jun	5.89	5.80	5.87	5.80	5.84	5.95
2022	Jul	6.22	6.29	6.29	6.29	6.27	6.16
2022	Aug	6.27	6.22	6.27	6.22	6.25	6.26
2022	Sep	6.12	5.97	6.07	5.97	6.03	6.11
2022	Oct	6.37	6.23	6.33	6.23	6.29	6.24
	Avg.	6.58	6.27	6.46	6.48	6.45	6.48

Appendix 7.1 - SENDOUT® Marginal Cost Determination by Region - Annual

Expected Case

Figures Include Transportation and Storage, Excludes Environmental Externalities - 2007\$/Dth

Year	Month	Klam Falls	La Grande	Medford	Roseburg	OR Total	WA/ID
2022	Nov	6.73	6.60	6.70	6.60	6.65	6.60
2022	Dec	7.07	4.73	5.94	7.19	6.23	6.99
2023	Jan	7.64	7.70	7.71	7.70	7.69	7.57
2023	Feb	7.63	7.50	7.60	7.50	7.55	7.49
2023	Mar	7.44	7.31	7.41	7.31	7.37	7.30
2023	Apr	6.27	5.84	6.08	5.84	6.00	5.58
2023	May	6.20	6.09	6.18	6.09	6.14	6.09
2023	Jun	5.98	5.89	5.96	5.89	5.93	6.05
2023	Jul	6.33	6.52	6.39	6.52	6.44	6.31
2023	Aug	6.38	6.32	6.37	6.32	6.35	6.37
2023	Sep	6.24	6.09	6.19	6.09	6.15	6.23
2023	Oct	6.47	6.34	6.44	6.34	6.40	6.34
	Avg.	6.70	6.41	6.58	6.61	6.58	6.58
2023	Nov	6.84	6.71	6.81	6.71	6.77	6.71
2023	Dec	7.18	5.06	6.16	9.97	7.09	7.11
2024	Jan	7.77	7.83	7.84	7.83	7.82	7.71
2024	Feb	7.75	7.62	7.72	7.62	7.68	7.62
2024	Mar	7.56	7.43	7.53	7.43	7.49	7.42
2024	Apr	6.38	5.94	6.19	5.94	6.11	5.72
2024	May	6.30	6.19	6.28	6.19	6.24	6.19
2024	Jun	6.09	6.00	6.07	6.00	6.04	6.15
2024	Jul	6.44	6.63	6.50	6.63	6.55	6.42
2024	Aug	6.48	6.42	6.48	6.42	6.45	6.47
2024	Sep	6.35	6.19	6.29	6.19	6.26	6.33
2024	Oct	6.59	6.45	6.55	6.45	6.51	6.45
	Avg.	6.81	6.54	6.70	6.95	6.75	6.69
2024	Nov	6.95	6.82	6.92	6.82	6.88	6.82
2024	Dec	7.31	5.40	6.39	10.30	7.35	7.23
2025	Jan	7.90	7.96	7.97	7.96	7.95	7.84
2025	Feb	7.88	7.75	7.85	7.75	7.81	7.75
2025	Mar	7.69	7.57	7.67	7.57	7.62	7.56
2025	Apr	6.51	6.06	6.32	6.06	6.24	5.84
2025	May	6.41	6.29	6.38	6.29	6.34	6.29
2025	Jun	6.20	6.10	6.17	6.10	6.14	6.26
2025	Jul	6.55	6.74	6.62	6.74	6.66	6.53
2025	Aug	6.59	6.54	6.59	6.54	6.56	6.58
2025	Sep	6.46	6.30	6.41	6.30	6.37	6.44
2025	Oct	6.70	6.56	6.66	6.56	6.62	6.57
	Avg.	6.93	6.67	6.83	7.08	6.88	6.81
2025	Nov	7.08	6.94	7.05	6.94	7.00	6.94
2025	Dec	7.43	6.17	6.84	11.06	7.87	7.36
2026	Jan	8.03	8.11	8.11	8.11	8.09	7.98
2026	Feb	8.02	7.89	8.00	7.89	7.95	7.89
2026	Mar	7.82	7.70	7.80	7.70	7.76	7.69
2026	Apr	6.62	6.17	6.43	6.17	6.35	5.95
2026	May	6.52	6.40	6.50	6.40	6.46	6.40
2026	Jun	6.30	6.21	6.28	6.21	6.25	6.37
2026	Jul	6.67	6.87	6.73	6.87	6.78	6.65
2026	Aug	6.71	6.65	6.70	6.65	6.68	6.69
2026	Sep	6.57	6.41	6.52	6.41	6.48	6.56
2026	Oct	6.82	6.70	6.79	6.70	6.75	6.70
	Avg.	7.05	6.85	6.98	7.26	7.03	6.93
2026	Nov	7.20	7.06	7.17	7.06	7.12	7.06
2026	Dec	7.56	6.56	7.08	13.87	8.77	7.52
2027	Jan	8.14	8.21	8.21	8.21	8.19	8.08
2027	Feb	8.12	8.01	8.10	8.01	8.06	8.00
2027	Mar	7.93	7.81	7.91	7.81	7.87	7.80
2027	Apr	6.71	6.25	6.51	6.25	6.43	6.03
2027	May	6.62	6.50	6.59	6.50	6.55	6.50
2027	Jun	6.39	6.30	6.37	6.30	6.34	6.46
2027	Jul	6.76	6.96	6.83	6.96	6.88	6.74
2027	Aug	6.80	6.74	6.80	6.74	6.77	6.78
2027	Sep	6.77	6.56	6.69	6.56	6.64	6.68
2027	Oct	6.91	6.79	6.89	6.79	6.85	6.79
	Avg.	7.16	6.98	7.10	7.59	7.21	7.04

Appendix 7.1 - SENDOUT® Marginal Cost Determination by Region - Winter Expected Case

Figures Include Transportation and Storage, Excludes Environmental Externalities - 2007\$/Dth

Year	Month	Klam Falls	La Grande	Medford	Roseburg	OR Total	WA/ID
2007	Nov	6.65	6.48	6.53	6.48	6.54	6.46
2007	Dec	7.48	8.01	7.43	8.01	7.73	7.66
2008	Jan	8.73	8.58	8.54	8.58	8.61	8.53
2008	Feb	8.70	8.42	8.48	8.42	8.50	8.42
2008	Mar	8.39	8.20	8.26	8.20	8.26	8.20
	Avg.	7.99	7.94	7.85	7.94	7.93	7.85
2008	Nov	7.75	7.53	7.59	7.53	7.60	7.53
2008	Dec	8.23	7.53	7.79	7.53	7.77	8.04
2009	Jan	8.17	8.04	8.00	8.04	8.06	7.98
2009	Feb	8.15	7.85	7.91	7.85	7.94	7.85
2009	Mar	7.84	7.65	7.71	7.65	7.71	7.65
	Avg.	8.03	7.72	7.80	7.72	7.82	7.81
2009	Nov	7.26	7.03	7.10	7.03	7.11	7.03
2009	Dec	7.70	7.24	7.39	7.24	7.39	7.52
2010	Jan	7.63	7.51	7.47	7.51	7.53	7.45
2010	Feb	7.62	7.33	7.39	7.33	7.42	7.32
2010	Mar	7.33	7.14	7.20	7.14	7.20	7.14
	Avg.	7.51	7.25	7.31	7.25	7.33	7.29
2010	Nov	6.77	6.56	6.62	6.56	6.62	6.56
2010	Dec	7.18	6.98	7.00	6.98	7.03	7.03
2011	Jan	7.03	6.92	6.87	6.92	6.93	6.86
2011	Feb	7.02	6.74	6.80	6.74	6.82	6.74
2011	Mar	6.76	6.57	6.62	6.57	6.63	6.56
	Avg.	6.95	6.75	6.78	6.75	6.81	6.75
2011	Nov	6.13	6.02	6.08	6.02	6.06	6.02
2011	Dec	6.45	3.70	5.09	3.70	4.74	6.46
2012	Jan	6.58	6.62	6.58	6.62	6.60	6.56
2012	Feb	6.56	6.32	6.44	6.32	6.41	6.36
2012	Mar	6.39	6.29	6.34	6.29	6.33	6.28
	Avg.	6.42	5.79	6.11	5.79	6.03	6.34
2012	Nov	5.88	5.77	5.82	5.77	5.81	5.77
2012	Dec	6.18	1.85	4.02	1.85	3.47	6.14
2013	Jan	6.44	6.47	6.44	6.47	6.45	6.42
2013	Feb	6.42	6.16	6.29	6.16	6.25	6.20
2013	Mar	6.26	6.14	6.20	6.14	6.19	6.14
	Avg.	6.24	5.28	5.75	5.28	5.64	6.13
2013	Nov	5.75	5.63	5.72	5.63	5.68	5.63
2013	Dec	6.05	2.11	4.11	2.11	3.60	6.02
2014	Jan	6.56	6.61	6.62	6.61	6.60	6.55
2014	Feb	6.55	6.29	6.46	6.29	6.40	6.34
2014	Mar	6.40	6.28	6.37	6.28	6.33	6.28
	Avg.	6.26	5.38	5.86	5.38	5.72	6.16
2014	Nov	5.87	5.76	5.84	5.76	5.81	5.76
2014	Dec	6.18	2.29	4.27	2.29	3.76	6.15
2015	Jan	6.78	6.83	6.84	6.83	6.82	6.77
2015	Feb	6.77	6.51	6.67	6.51	6.62	6.55
2015	Mar	6.60	6.48	6.57	6.48	6.53	6.48
	Avg.	6.44	5.57	6.04	5.57	5.91	6.34
2015	Nov	6.07	5.95	6.04	5.95	6.00	5.95
2015	Dec	6.37	2.50	4.47	2.50	3.96	6.38
2016	Jan	6.82	6.87	6.88	6.87	6.86	6.81
2016	Feb	6.81	6.69	6.78	6.69	6.74	6.68
2016	Mar	6.63	6.51	6.61	6.51	6.57	6.51
	Avg.	6.54	5.70	6.15	5.70	6.03	6.47

Appendix 7.1 - SENDOUT® Marginal Cost Determination by Region - Winter Expected Case

Figures Include Transportation and Storage, Excludes Environmental Externalities - 2007\$/Dth

Year	Month	Klam Falls	La Grande	Medford	Roseburg	OR Total	WA/ID
2016	Nov	6.10	5.98	6.07	5.98	6.03	5.98
2016	Dec	6.42	2.98	4.72	2.98	4.27	6.42
2017	Jan	6.85	6.90	6.91	6.90	6.89	6.84
2017	Feb	6.84	6.73	6.82	6.73	6.78	6.72
2017	Mar	6.67	6.54	6.64	6.54	6.60	6.54
	Avg.	6.57	5.82	6.23	5.82	6.11	6.50
2017	Nov	6.12	6.00	6.09	6.00	6.05	6.00
2017	Dec	6.45	3.01	4.76	3.01	4.30	6.45
2018	Jan	6.87	6.93	6.94	6.93	6.92	6.87
2018	Feb	6.86	6.75	6.84	6.75	6.80	6.74
2018	Mar	6.70	6.57	6.67	6.57	6.63	6.57
	Avg.	6.60	5.85	6.26	5.85	6.14	6.53
2018	Nov	6.15	6.03	6.12	6.03	6.08	6.03
2018	Dec	6.47	3.30	4.92	3.30	4.50	6.42
2019	Jan	7.06	7.11	7.12	7.11	7.10	7.04
2019	Feb	7.05	6.92	7.02	6.92	6.98	6.92
2019	Mar	6.87	6.74	6.84	6.74	6.80	6.74
	Avg.	6.72	6.02	6.40	6.02	6.29	6.63
2019	Nov	6.32	6.19	6.29	6.19	6.25	6.19
2019	Dec	6.64	3.47	5.09	3.47	4.67	6.60
2020	Jan	7.23	7.28	7.29	7.28	7.27	7.22
2020	Feb	7.21	7.08	7.18	7.08	7.14	7.08
2020	Mar	7.04	6.91	7.01	6.91	6.96	6.90
	Avg.	6.89	6.19	6.57	6.19	6.46	6.80
2020	Nov	6.46	6.33	6.43	6.33	6.39	6.33
2020	Dec	6.79	4.26	5.56	4.26	5.22	6.76
2021	Jan	7.39	7.44	7.45	7.44	7.43	7.38
2021	Feb	7.38	7.25	7.35	7.25	7.31	7.25
2021	Mar	7.19	7.06	7.16	7.06	7.12	7.06
	Avg.	7.04	6.47	6.79	6.47	6.69	6.95
2021	Nov	6.60	6.48	6.57	6.48	6.53	6.48
2021	Dec	6.95	4.45	5.73	6.90	6.01	6.95
2022	Jan	7.52	7.57	7.58	7.57	7.56	7.50
2022	Feb	7.50	7.38	7.47	7.38	7.43	7.37
2022	Mar	7.32	7.19	7.29	7.19	7.25	7.18
	Avg.	7.18	6.61	6.93	7.10	6.96	7.10
2022	Nov	6.73	6.60	6.70	6.60	6.65	6.60
2022	Dec	7.07	4.73	5.94	7.19	6.23	6.99
2023	Jan	7.64	7.70	7.71	7.70	7.69	7.57
2023	Feb	7.63	7.50	7.60	7.50	7.55	7.49
2023	Mar	7.44	7.31	7.41	7.31	7.37	7.30
	Avg.	7.30	6.77	7.07	7.26	7.10	7.19
2023	Nov	6.84	6.71	6.81	6.71	6.77	6.71
2023	Dec	7.18	5.06	6.16	9.97	7.09	7.11
2024	Jan	7.77	7.83	7.84	7.83	7.82	7.71
2024	Feb	7.75	7.62	7.72	7.62	7.68	7.62
2024	Mar	7.56	7.43	7.53	7.43	7.49	7.42
	Avg.	7.42	6.93	7.21	7.91	7.37	7.31
2024	Nov	6.95	6.82	6.92	6.82	6.88	6.82
2024	Dec	7.31	5.40	6.39	10.30	7.35	7.23
2025	Jan	7.90	7.96	7.97	7.96	7.95	7.84
2025	Feb	7.88	7.75	7.85	7.75	7.81	7.75
2025	Mar	7.69	7.57	7.67	7.57	7.62	7.56
	Avg.	7.54	7.10	7.36	8.08	7.52	7.44
2025	Nov	7.08	6.94	7.05	6.94	7.00	6.94
2025	Dec	7.43	6.17	6.84	11.06	7.87	7.36
2026	Jan	8.03	8.11	8.11	8.11	8.09	7.98
2026	Feb	8.02	7.89	8.00	7.89	7.95	7.89
2026	Mar	7.82	7.70	7.80	7.70	7.76	7.69
	Avg.	7.67	7.36	7.56	8.34	7.73	7.57

**Appendix 7.1 - SENDOUT® Marginal Cost Determination by Region - Winter
Expected Case**

Figures Include Transportation and Storage, Excludes Environmental Externalities - 2007\$/Dth

Year	Month	Klam Falls	La Grande	Medford	Roseburg	OR Total	WA/ID
2026	Nov	7.20	7.06	7.17	7.06	7.12	7.06
2026	Dec	7.56	6.56	7.08	13.87	8.77	7.52
2027	Jan	8.14	8.21	8.21	8.21	8.19	8.08
2027	Feb	8.12	8.01	8.10	8.01	8.06	8.00
2027	Mar	7.93	7.81	7.91	7.81	7.87	7.80
	Avg.	7.79	7.53	7.70	8.99	8.00	7.69