February 1, 2006

MEMORANDUM

TO: Power Committee

FROM: Terry Morlan

SUBJECT: Background on Power Committee Agenda Items 2 and 3

The staff will brief the Council on developments in energy prices, consumption, and conservation during 2005. We now have final wholesale price information for most of the key energy prices that affect regional consumers. We also have information on electricity consumption in 2004 and preliminary information on electricity consumption and conservation achievements during 2005.

In the 2nd agenda item, we will update the Power Committee on energy prices and electricity demand. Wholesale energy prices were high in 2005. Staff will show recent price trends for electricity, natural gas, and oil. We will discuss how the various energy prices are related and how the 2005 prices compare to the assumptions used for the 5th power plan. These wholesale prices do not have an immediate direct effect on most consumers due to purchasing practices of utilities and distributors and because of regulatory lags that delay the effects on consumers. However, eventually these prices will find their way into consumers' bills.

We will show how new information on electricity consumption in 2004 and 2005 relates to the forecasts of electricity demand in the Council's 5th power plan.

In the 3rd agenda item staff will review preliminary utility conservation achievements for 2005 and how they compare with the goals in the power plan. We will also take a look at utilities' conservation plans and budgets for 2006. We will provide an assessment of what types of conservation are being achieved and identify conservation initiatives that may need additional funding. .

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Report on 2004 Electricity Sales

Tuesday, February 21 2006

In this report, we present the preliminary regional sales and load figures for 2004 and 2005. The reported loads and sales indicate that although the regional economy has been growing at a moderate rate, regional electricity consumption (sales) has not. Wholesale price of gas and electricity has been on the rise delaying recovery of industrial sectors consumption.

Regional economy has been growing at a moderate rate since 2001

Although the region's population, employment, and economy have continued to grow at a moderate rate since 2001, the manufacturing sector has experienced a slower growth than the rest of the economy, and in state of Oregon, the manufacturing sector has declined since 2000. Table 6, at the end of this report, shows the population, employment, total gross state product, and manufacturing portion of the gross state product for the four Northwest states for 2000-2004.

Wholesale and Retail rates have been increasing

Following natural gas prices, wholesale prices of electricity have been increasing. On an annual average basis, wholesale electricity prices at Mid C have risen from $22/MWH in 2002 to $57 per MWH in 2005.

Table 1- Wholesale Price of Electricity at Mid C market ($/MWH)

	2000	2001	2002	2003	2004	2005
Mid C Prices	114	124	22	37	41	57

Along with wholesale prices, the retail rates to customers have also increased significantly. The following table, Table 2, shows state, national, ranking, as well as percent change in electricity prices since 2000. Depending on the sector, retail electricity rates in 2004 were 13% to 33% higher than year 2000 rates. Higher prices have kept the consumption down in all sectors especially industrial.

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Table 2 Average Retail Price of Electricity By Sector

Average Retail Rates in 2000 (cents/kWh)

	Residential	Commercial	Industrial
Idaho	5.39	4.24	3.11
Montana	6.49	5.6	3.97
Oregon	5.88	5.06	3.56
Washington	5.13	4.86	3.3
National Average	8.24	7.43	4.64

Source: Average Price by State by Provider (EIA-861)

Average Retail Rates in 2004 (cents/kWh)

	Residential	Commercial	Industrial
Idaho	6.1	5.37	3.82
Montana	7.86	7.42	4.15
Oregon	7.18	6.45	4.43
Washington	6.37	6.17	4.28
National Average	8.97	8.16	5.27

Source: Average Price by State by Provider (EIA-861)

States Ranking for Electricity Prices - 2000 and 2004

	Residential		Commercial		Industrial	
	2000	**2004**	**2000**	**2004**	**2000**	**2004**
Idaho	50	50	51	51	50	50
Montana	43	**32**	42	**24**	37	42
Oregon	48	**43**	49	**36**	46	**35**
Washington	51	**48**	50	**41**	49	**38**

A higher ranking indicates a lower electricity cost.

Percent Change in Retail Rates since 2000

	Residential	Commercial	Industrial
Idaho	13%	27%	23%
Montana	21%	33%	5%
Oregon	22%	27%	24%
Washington	24%	27%	30%
National	9%	10%	14%

Regional Consumption (Sales) have been fairly flat since 2001

In the aftermath of the 2001 crisis region lost about 3300 MWa of electricity sales and by 2004 these losses have not been recovered. Sales have been fairly flat. Total electricity consumption for 2003 and 2004 were almost identical, 17106 compared to 17094 MWa.

After adjusting sales for impact of weather, we see that consumption levels in 2004 could have been 350 MWa lower had the weather in 2004 been normal. Analysis of daily variations of temperatures in 2004 indicates that winter of 2004 was 3% cooler than normal and summer of 2004 was 18% hotter than normal temperatures.

Table 3 - Annual Sales without and with Adjustment for Weather

	2000	**2001**	**2002**	**2003**	**2004***
Sales (MWa)	20,162	17,357	16,827	17,106	17,094
Weather-Adjusted Sales (MWa)	**20,082**	**17,255**	**16,704**	**17,168**	**16,740**
Impact of Weather on Sales (MWa)	**-80**	**-102**	**-123**	**62**	**-354**

*- Preliminary

Sales to Industrial Customers have not recovered from 2001 crisis

Table 4 shows consumption by customer groups, as well as a change in consumption during and since the 2001 crisis. The decline and recovery in sales is not uniform across the customer groups. During the 2000-2001 period, electricity consumption by:

- Commercial customers decreased by 161 MWa, however after 2001 consumption has recovered and increased by 88 MWa.

- Residential sector that decreased by 153 MWa but remained at that level since 2001.

- Industrial consumption decreased by about 2600 MWa in 2001 and declined further by 654 MWa by 2004. The decline in industrial consumption during the 2001-2004 was in the non-DSI sectors. One reason behind the decline in industrial electricity consumption can be found in the increasing cost of fuels and electricity prices, discussed earlier.

Table 4- Weather-adjusted Sales by Customer Groups (MWa)

	2000	2001	2004*	2000-2001 Change	2001-2004 Change	2000-2004 Change
Commercial	5,219	5,058	5,307	(161)	249	88
Residential	6,724	6,571	6,570	(153)	(1)	(154)
Industrial	7,315	4,688	4,034	(2,627)	(654)	(3,281)
DSI Firm	2,477	287	317	(2,190)	30	(2,160)
Non-DSI Firm	4,838	4,401	3,716	(437)	(685)	(1,122)
Irrigation	652	742	651	90	(91)	(1)
Other	172	196	178	24	(18)	6
Total Sales After Adjustment	20,082	17,255	16,740	(2,827)	(515)	(3,342)

*- Preliminary

Public utilities, including BPA, have lost a 5 percent market share

Although both private and public sectors have had lower electric sales since 2000, adjusting for the temperature, we see that the share of BPA and public utilities has gone down from about 10,000 MWa to about 7,500 MWa representing a 5 percent market share loss, while the market share of private utilities has increased by 5 percent.

Actual Sales are in the Low range of Council's 5th Plan Forecast

Table 5, below, shows Council's range of forecasted sales for 2004-2006 as well as weather-adjusted actual sales for 2004-2005. The weather-adjusted actual sales are in the low range of the forecast.

Table 5- Range for Forecast and Actual Weather-adjusted Sales

Sales Forecast	**Low**	Med-Low	Medium	Med-High	High	Weather-Adjusted Actual Sales *
2004	**17,109**	17,539	18,714	18,375	19,371	**16,740**
2005	**17,191**	18,284	19,391	20,220	21,721	**17,668**
2006	17,200	18,415	19,621	20,560	22,227	

*- Preliminary

In summary

The regional economy has been recovering from the impact of 2001 crisis but regional electricity sales have not. The largest declines were in the industrial sector, which has shown no recovery through 2004. Decline in industrial sales has been, in part, due to increasing energy costs.

Table 6 -State-specific Population, Employment, GSP, and Manufacturing Output

						Growth Rate
State Population (in millions)	2000	2001	2002	2003	2004	2000-2004
Idaho	13.0	13.2	13.4	13.7	13.9	1.80%
Montana	0.9	0.9	0.9	0.9	0.9	0.60%
Oregon	3.4	3.5	3.5	3.6	3.6	1.20%
Washington	5.9	6.0	6.1	6.1	6.2	1.20%
4 States	23.2	23.6	23.9	24.3	24.7	1.48%
Total full-time and part-time employment (thousands)						
Idaho	788	796	802	812	834	1.40%
Montana	559	566	572	582	597	1.60%
Oregon	2,111	2,104	2,092	2,096	2,137	0.30%
Washington	3,551	3,557	3,527	3,550	3,620	0.50%
4 States	7,009	7,023	6,993	7,040	7,188	0.63%
Gross State Product (millions in current dollars)						
Idaho	35,206	36,571	38,276	40,358	43,571	5.50%
Montana	21,367	22,636	23,913	25,584	27,482	6.50%
Oregon	112,964	111,352	115,113	119,973	128,103	3.20%
Washington	221,314	225,656	233,971	245,143	261,549	4.30%
4 States	390,851	396,215	411,273	431,058	460,705	4.20%
Manufacturing Portion of Gross State Product (millions in current dollars)						
Idaho	5,807	5,354	5,334	5,771	6,231	1.80%
Montana	1,260	1,288	1,218	1,307	1,415	2.90%
Oregon	21,848	16,760	16,245	17,600	19,581	-2.70%
Washington	23,270	22,357	22,288	21,525	22,955	-0.30%
4 States	52,185	45,759	45,085	46,203	50,182	-0.97%

Source: U.S. Bureau of Economic Analysis.

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2005 Energy Prices

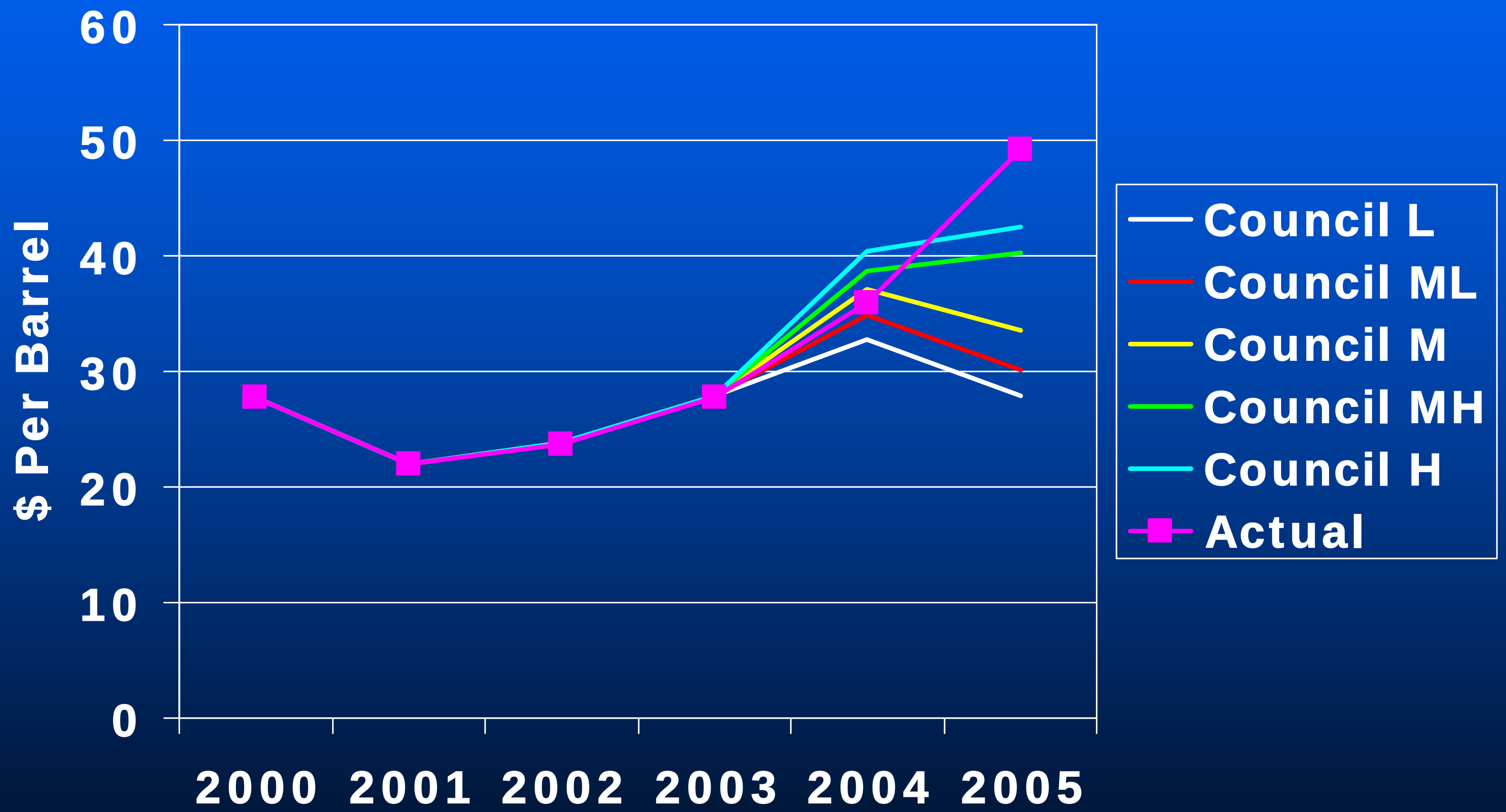
Power Committee

Portland, OR

February 21, 2006

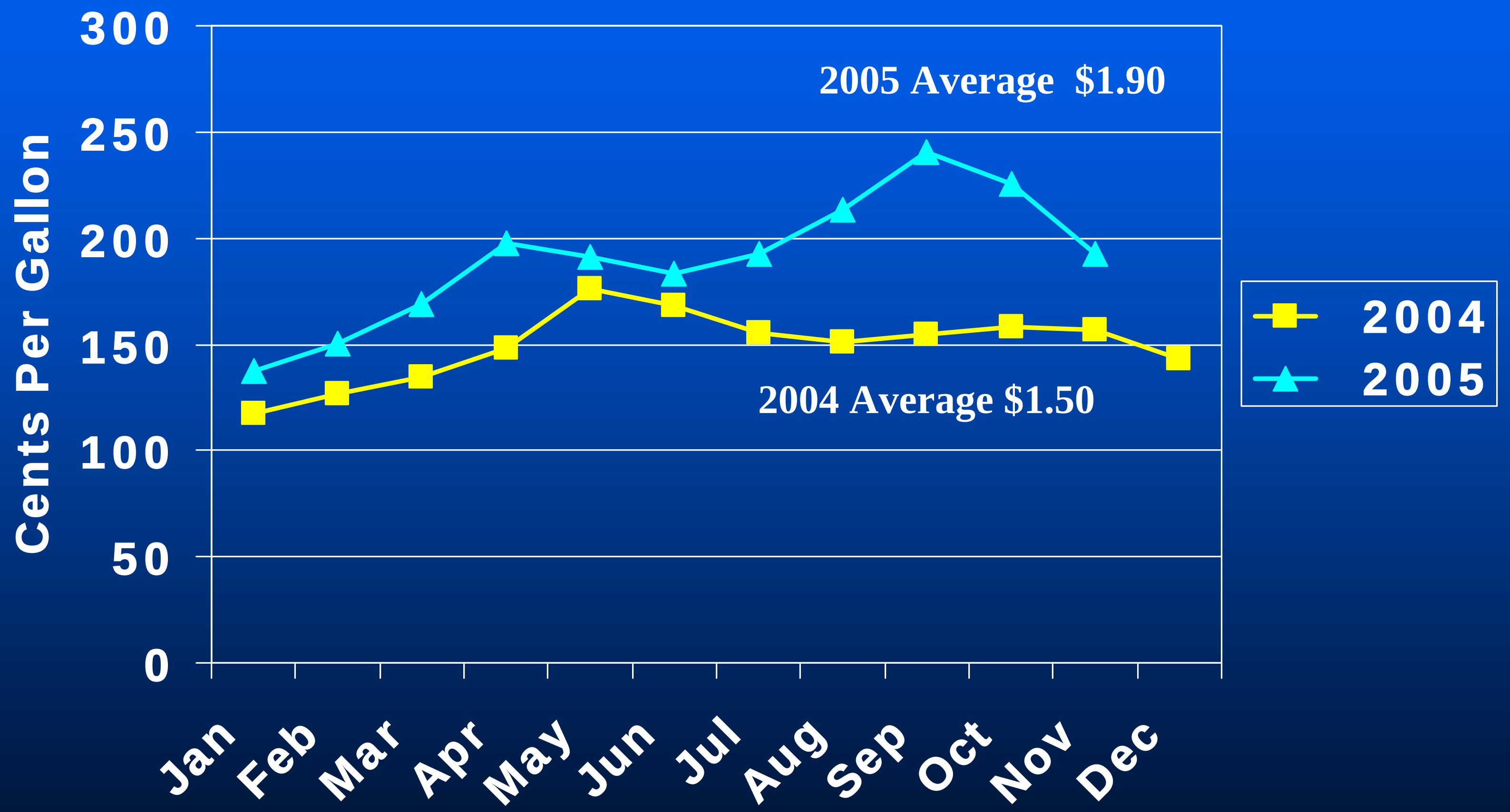
Northwest Power and Conservation Council

2005 World Oil Prices Exceeded the 5th Plan Range

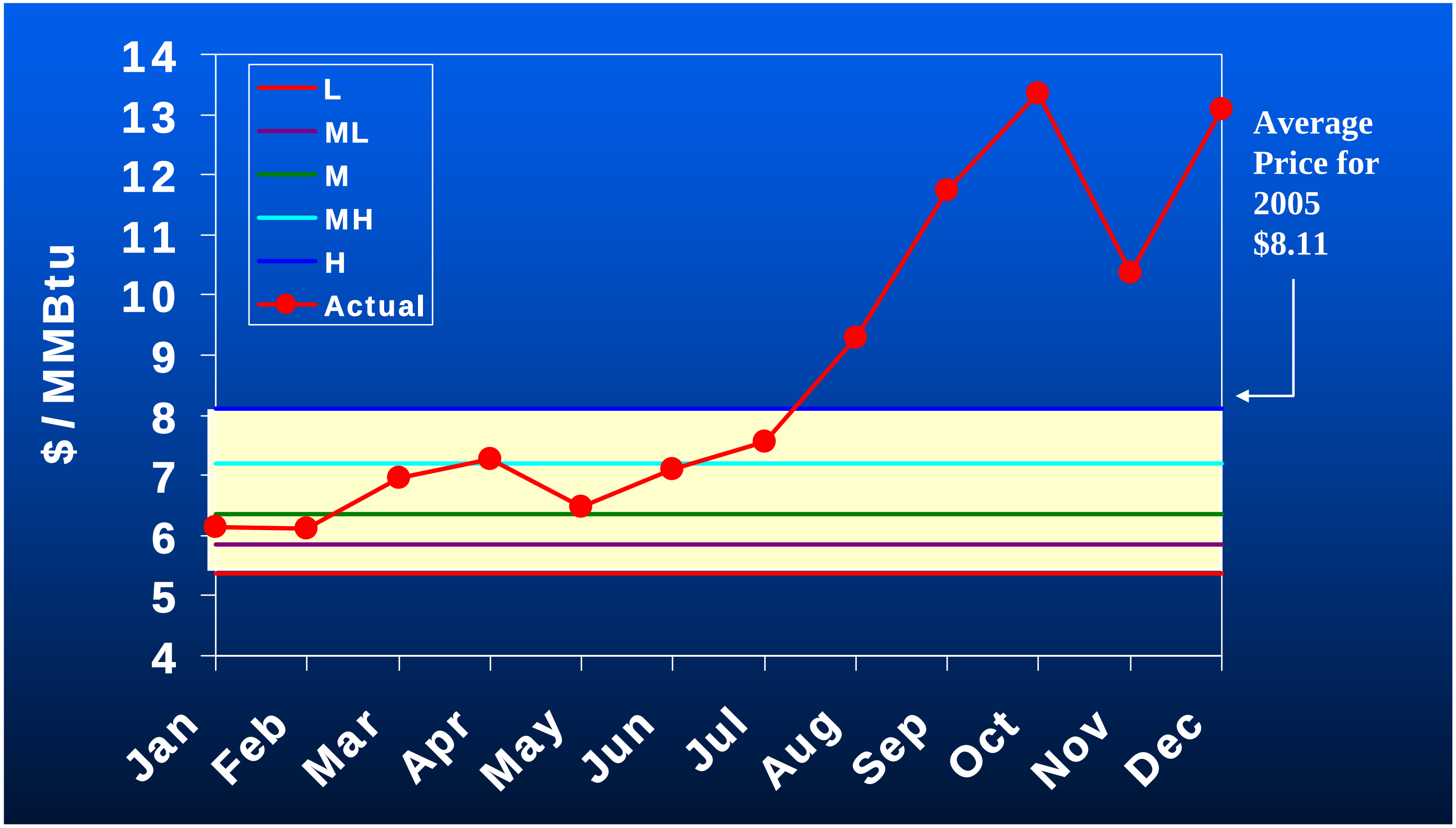


Northwest Power and Conservation Council

Washington State Gasoline Prices: 2004 and 2005

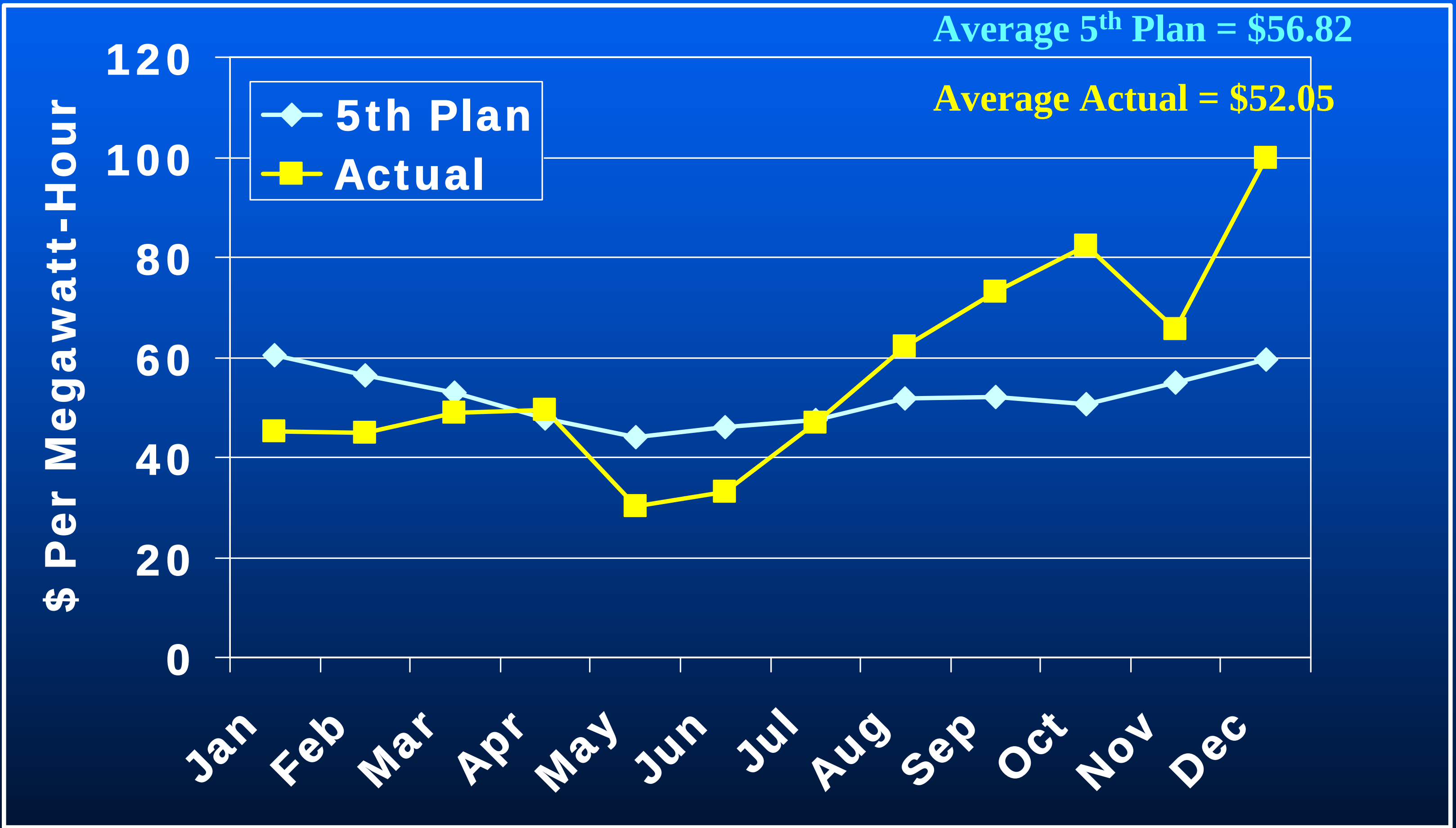


Natural Gas Prices in 2005



Northwest Power and Conservation Council

Monthly Electricity Prices 2005



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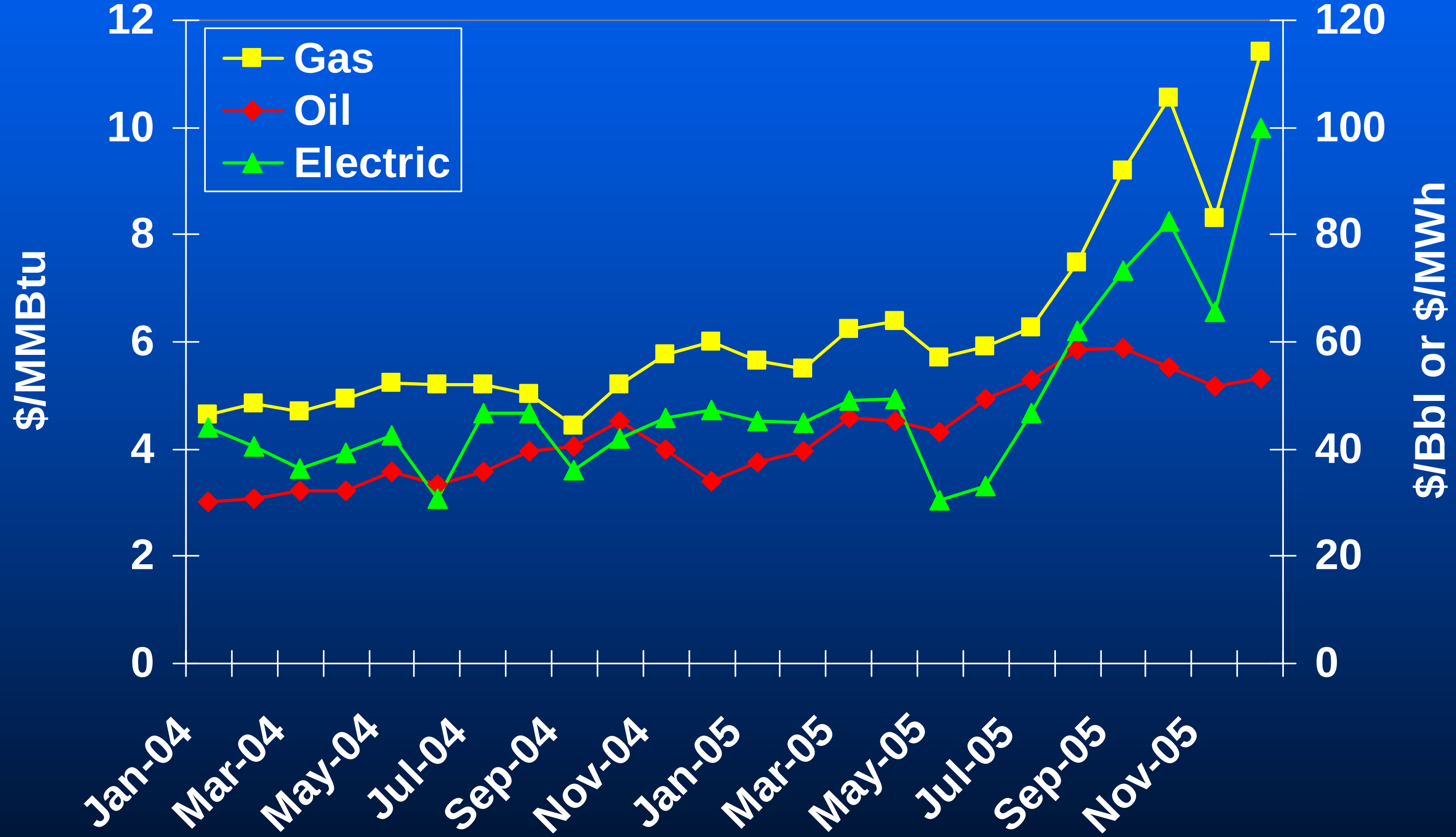
Monthly Fuel and Electric Prices: 2004 and 2005



Northwest Power and Conservation Council

Report on 2004 Electricity Loads and Sales

With preliminary reference to 2005 Loads

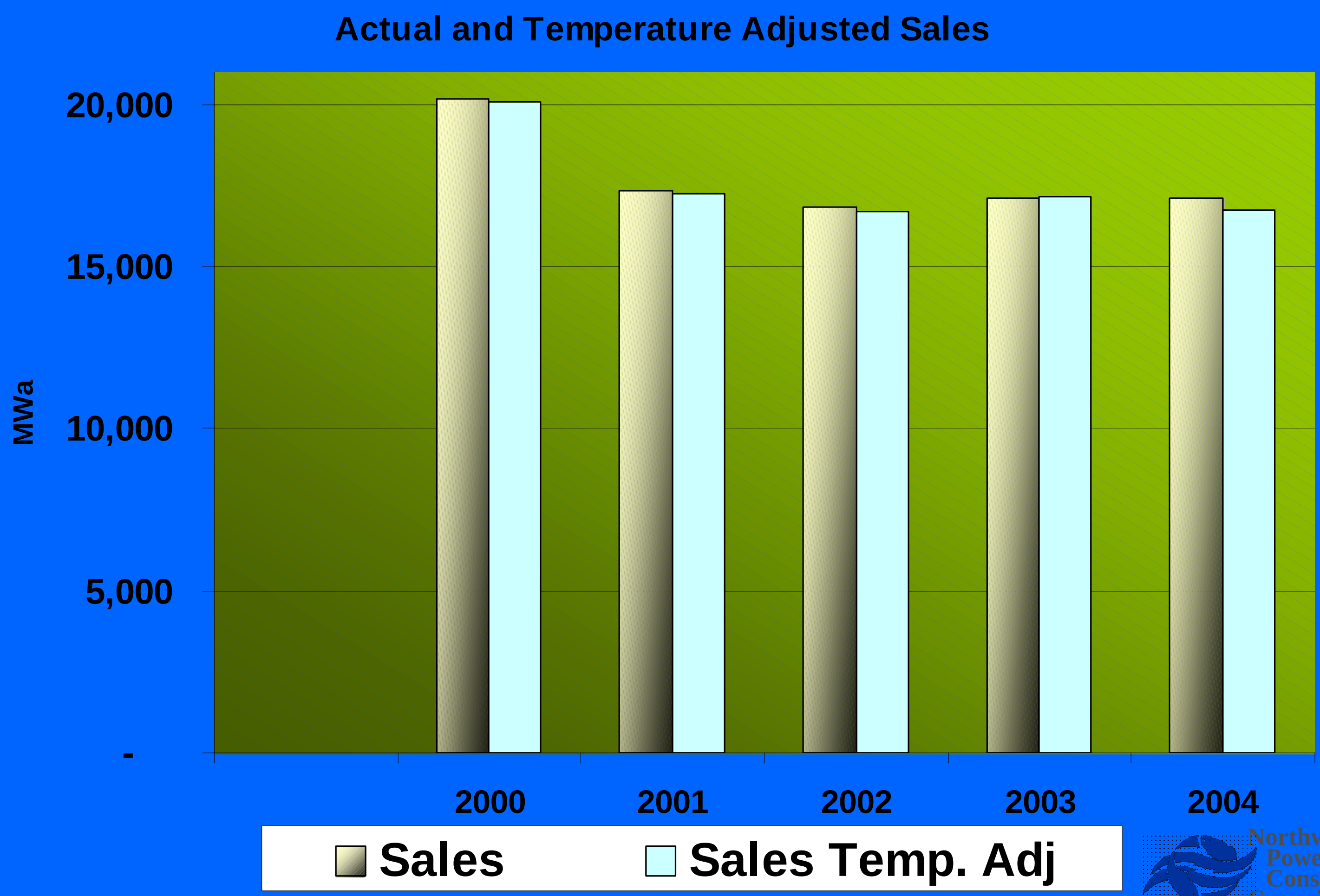
February 21, 2006

Northwest Power and Conservation Council

Regional Sales and Loads 2000-2004

- Sales
- Sales by Sector
- Public and Private Sector Sales
- Actual and Forecasted Sales and Loads

Regional Electricity Sales 2000-2004



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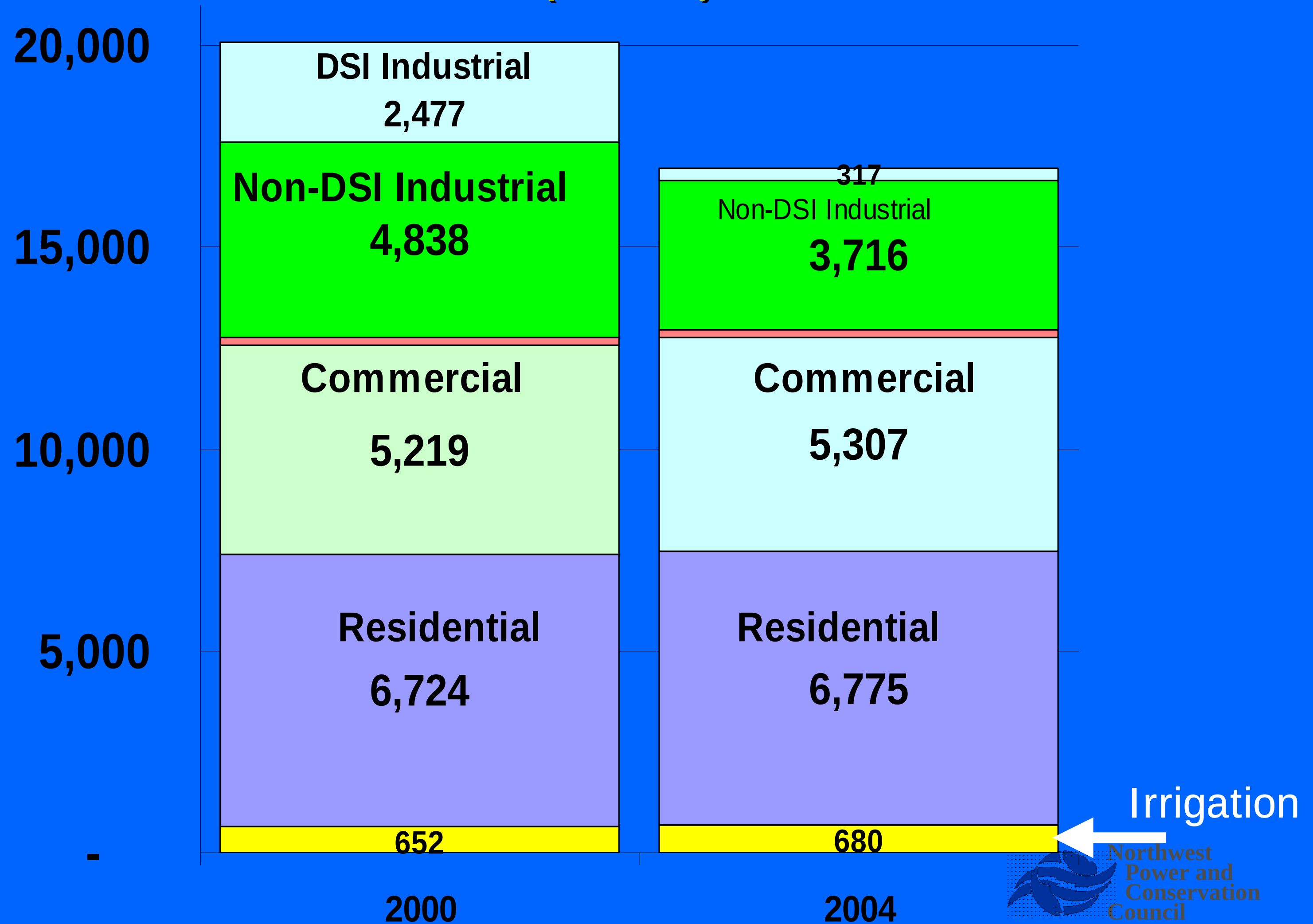
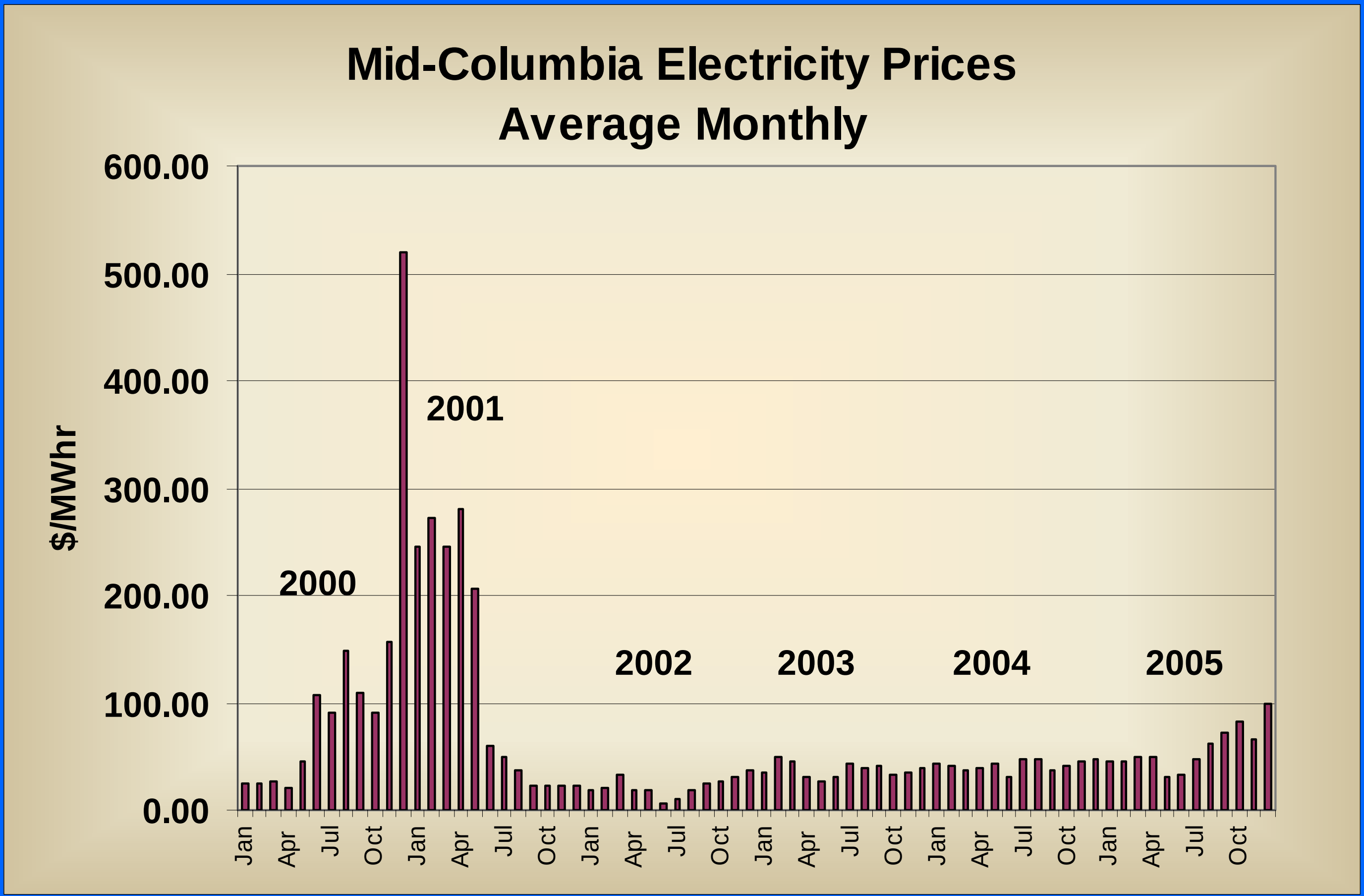
Weather-Adjusted Electricity Sales by Sector (MWa)



Spot Price of Electricity Is On the Rise



Average Price of Electricity at Mid C $/MWH					
2000	2001	2002	2003	2004	2005
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Retail Rates have increased significantly

Percent Change in Retail Rates since 2000			
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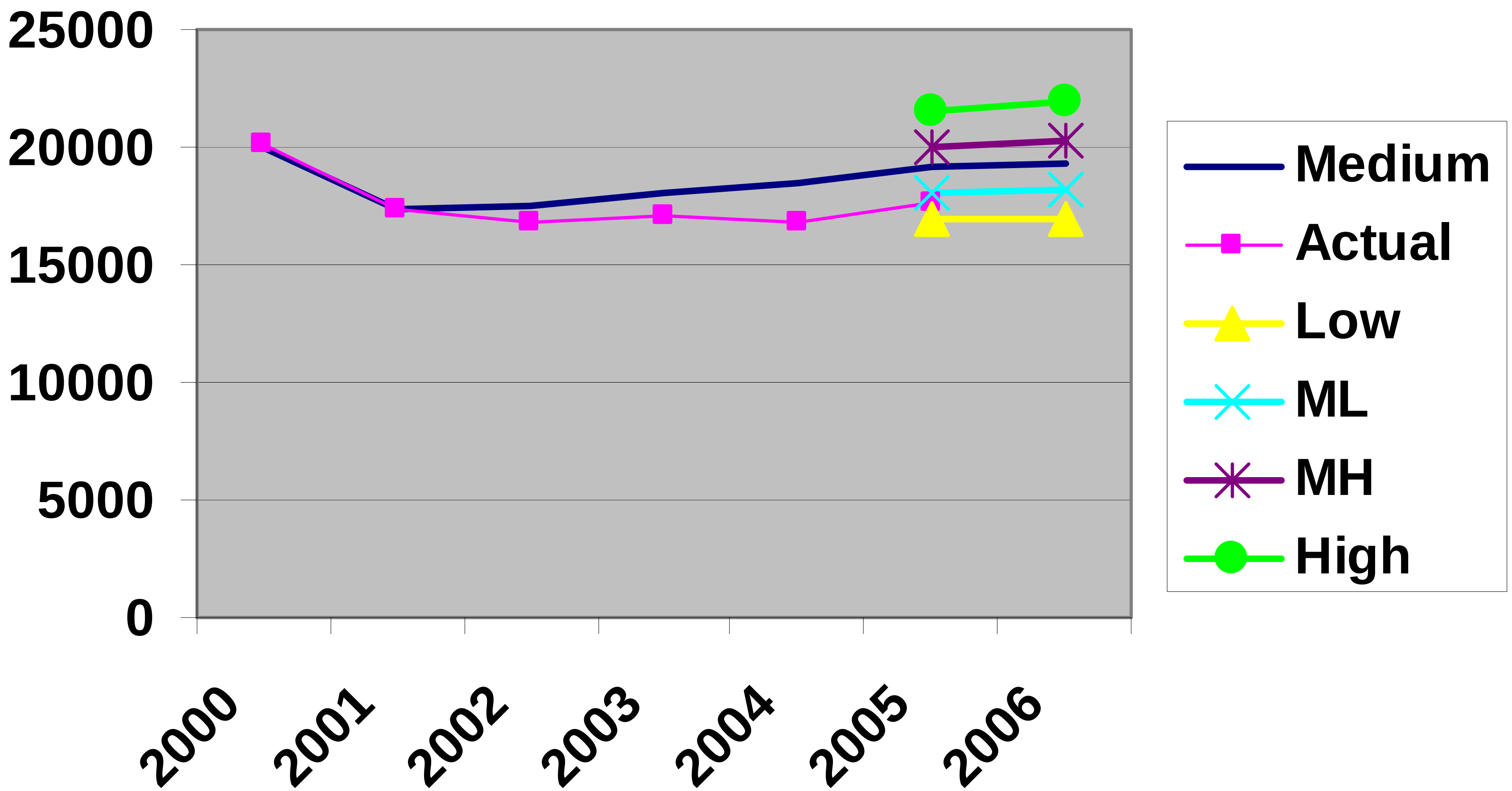
source: Average Price by State by Provider (EIA-861)			

Public and Private Sales (MWa)

	2000	2004
Public	10,161	7,736
Private	9,921	9,237
Total	20,082	16,973
Percent of Total		
Public	51%	46%
Private	49%	54%

Electricity Sales Forecast vs. Actual MWa



Northwest Power and Conservation Council

In Summary Since 2001

- Economy has been growing moderately
- Market price of electricity are on the rise
- Retail rates have increased significantly
- Weather condition has increased sales
- Large industrials not recovering
- Public utilities & BPA's losing market share
- 2004-2005 sales were in the low range of forecast