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January 7, 2009

MEMORANDUM

TO: Council Members

FROM: Massoud Jourabchi

SUBJECT: Demand Forecasts for the Draft Sixth Power Plan

Staff is seeking agreement from the Council to circulate a preliminary draft economic and load forecast for public comment.

Forecasts of economic activity are important assumptions for forecasting electricity demand for the draft Sixth Power Plan. Demand forecasts, with the additional transmission and distribution losses, determine the electricity loads that must be generated. The load forecast is also important in determining future wholesale prices of electricity and in estimating the plan's conservation potential. The high and low range of the load forecast is used in the Regional Portfolio Model, as a guide to long-term load uncertainty. The Regional Portfolio Model adds further short-term uncertainty to these forecasts to help assess the risks associated with varying loads.

The draft medium Sixth Power Plan demand forecast does not differ substantially from the medium forecast in the Fifth Power Plan. However, although the two forecasts are very close in aggregate, the sectoral growth rates differ significantly between the two plans. The draft Sixth Power Plan forecast for the residential and commercial sectors is higher compared to the last plan, whereas the industrial sector has a lower growth rate. This trend is consistent with the recent actual trends.

A brief summary of the forecasts will be presented to the full Council. A draft summary of the demand forecast is attached, along with a PowerPoint presentation summarizing the forecasts. The detailed appendix to be released for comment will be sent later.

Attachments



Draft Economic and Demand Forecasts for the Sixth Power Plan

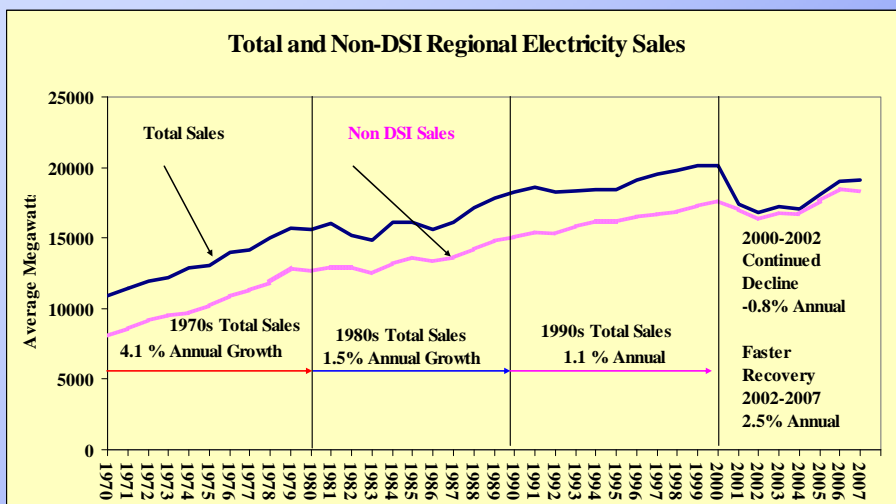
Massoud E. Jourabchi
January 13, 2009

Today's Presentation Covers

- Brief overview of economic forecasts
- Overview of sales forecast
- Overview of load forecast
- Next steps



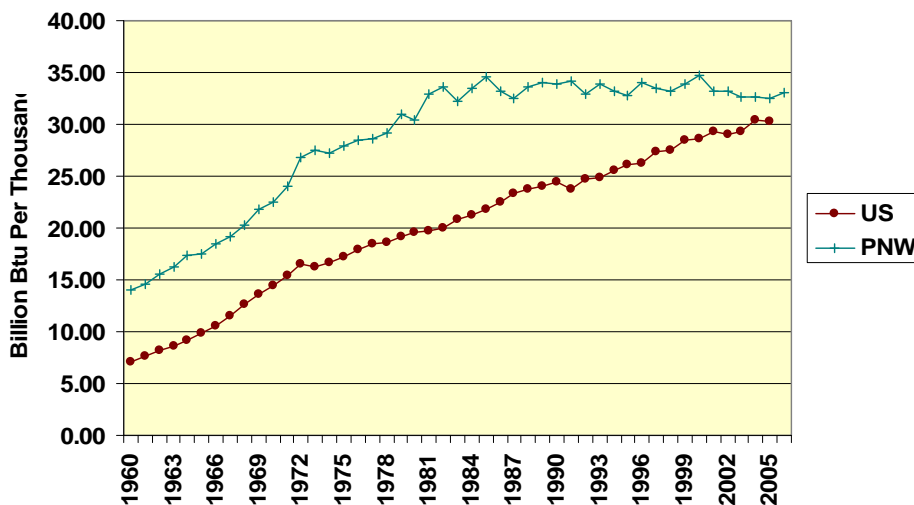
History of Electricity Sales



Electricity consumption has grown by 2.8% in the first 9 months of 2008



Residential and Commercial Electricity Use Per Capita



Consumption behavior of PNW customers is becoming similar to the Nation



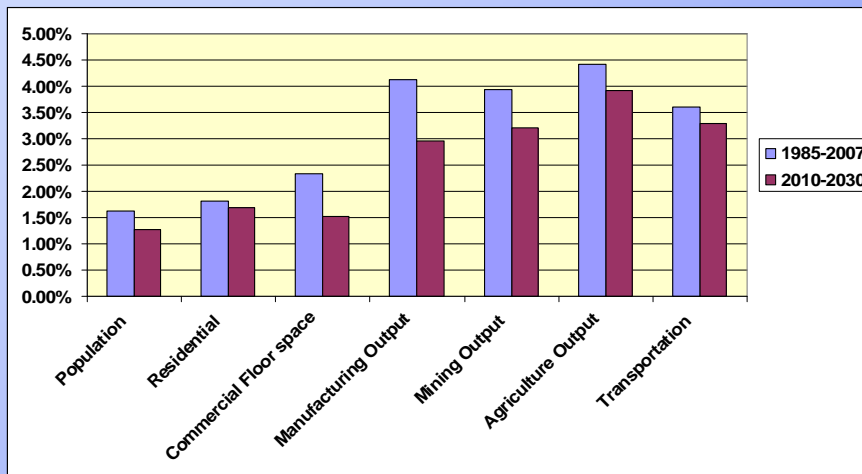
Key Base Case Economic Drivers Suggest Slow Down

- Population increasing at 1.3% compared to 1.6% per year experienced in 1985-2007
- Demand for housing growing at 1.7% compared to 1.9% per year experienced in 1985-2007
- Demand for commercial floor space growing at 1.5% compared to historic 2.3% per year
- Manufacturing output growing at 3% compared to historic 4% per year – slow down in productivity



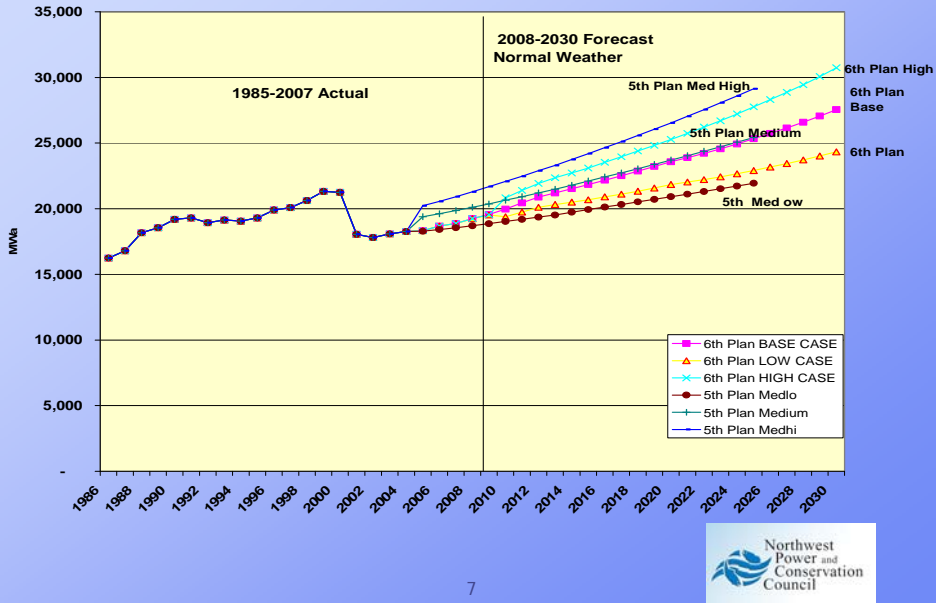
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Key Economic Drivers Suggest Slow Down in the Regional Economy



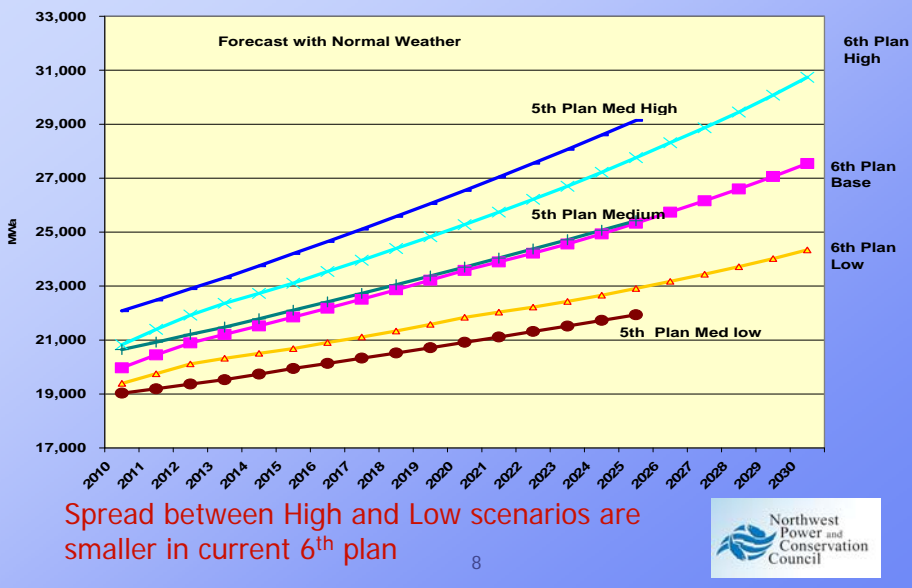
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Comparison of Demand Forecasts in the 5th and 6th Plans Reflects a Slow Down in Load Growth



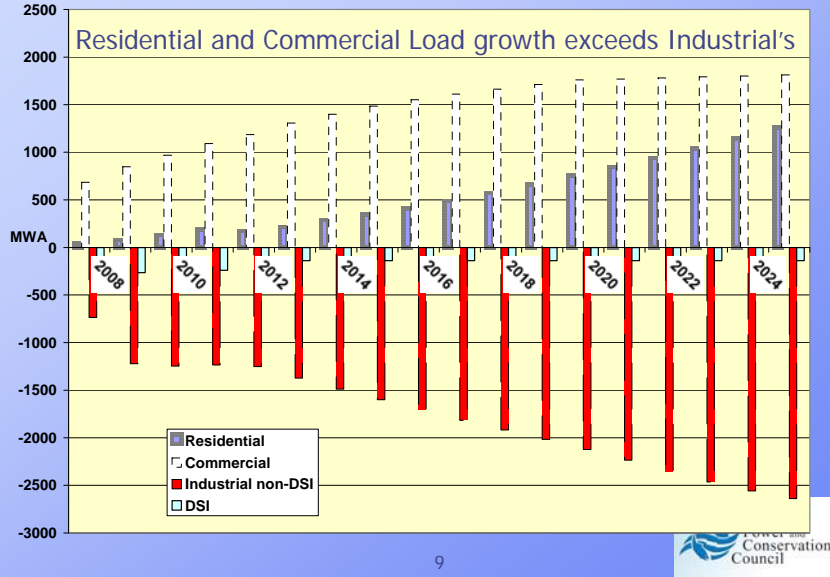
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Comparison of Demand Forecasts in the 5th and 6th Plans - continued

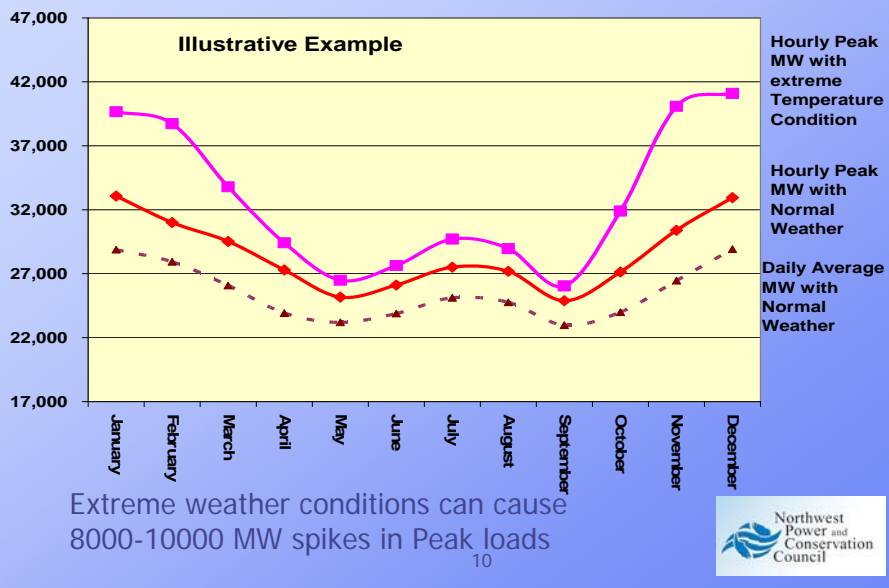


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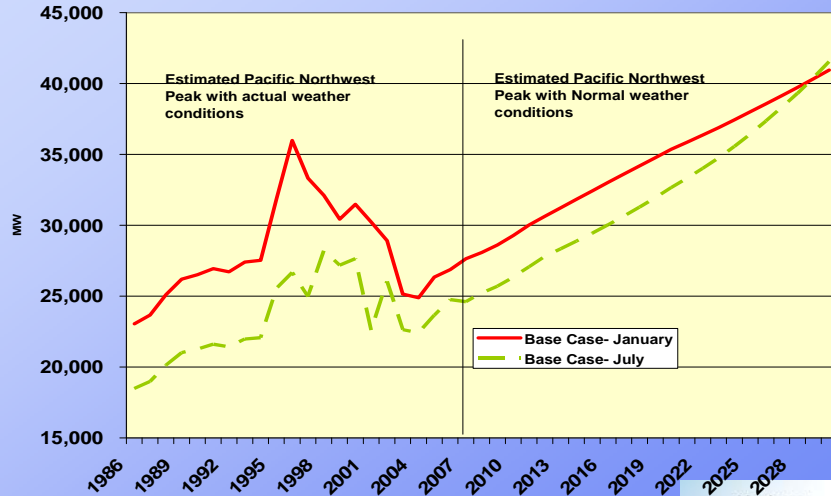
Changes Made to the Sector Loads from 5th to 6th Power Plans



Loads Vary Significantly by Month and by Temperature Conditions



Summer and Winter Peak Loads Actual* and Forecasts



* Estimated based on 1995-2002 actual hourly loads

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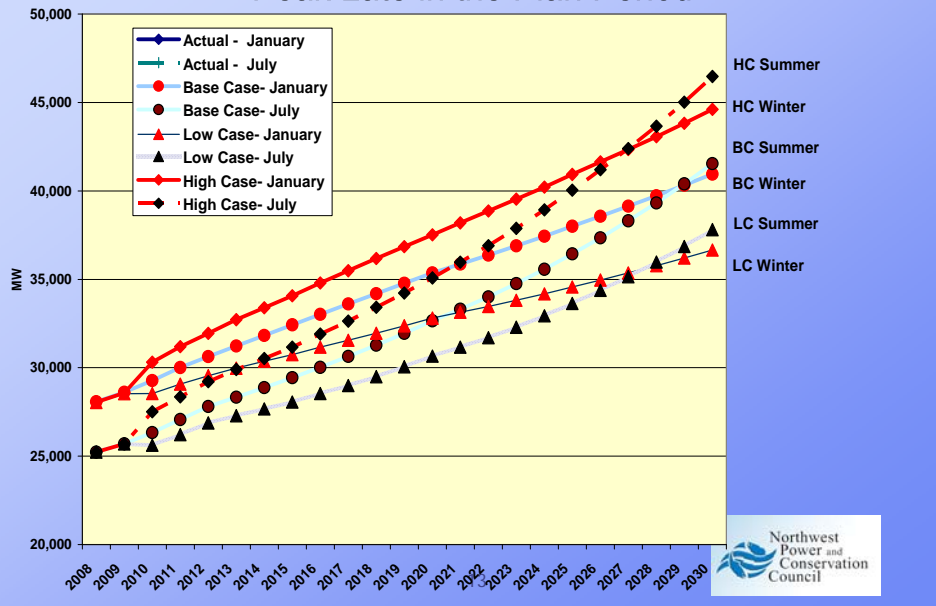
Range of Uncertainty in Economic Drivers

	2010-2030	2010-2030	2010-2030
Economic Drivers	Low Case	Base Case	High Case
Population	0.6%	1.3%	2.2%
Residential Units	0.6%	1.7%	2.2%
Commercial Floor space	0.9%	1.5%	1.9%
Manufacturing Output \$	2.3%	3.0%	3.9%
Council's Fuel Price Forecasts	(2008-2030)	(2008-2030)	(2008-2030)
Oil Prices	-1%	1%	2.0%
Natural Gas Prices	-1.3%	0.9%	1.7%
Coal Prices	-0.5%	0.5%	1.2%

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Summer Peak Load is Forecast to Overtake Winter Peak Late in the Plan Period



Next Steps

- Release of the report
- Incorporation of public comments
- Update electricity prices
- Incorporation of conservation targets
- Further sensitivity analysis for
 - Plug-in electric vehicles
 - CO2 tax
 - Climate change

In Closing

- The economic drivers of the 6th Power Plan forecast a slow-down in regional growth.
- The recovery from 2000-2002 energy crisis and recession has been slow.
- Residential and commercial customers have had the largest growth since 2002.
- Electricity consumption is forecast to grow at 1.6% per year.
- Winter peak load is forecast to grow at 1.7% per year.
- Summer peak load is forecast to grow at 2.2% per year.