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October 1, 2008

MEMORANDUM

TO: Power Committee

FROM: Terry Morlan

SUBJECT: Preliminary Draft Fuel Price Forecasts

Among the first components of the power plan that have to be completed is a forecast of fuel prices. Fuel prices enter into the forecasts of electricity demand and the estimated cost of fuel-fired generating resources. The most important forecast is for natural gas prices, but we also forecast oil and coal prices.

Uncertainty about future fuel prices is large. Therefore, we forecast a wide range of possible future price trends. The Portfolio Model adds shorter-term cycles and volatility to the trends to fully capture the risks. The attached paper and PowerPoint presentation describe the forecasts.

The forecast prices of all three fuels are significantly higher than in the Fifth Power Plan. The Council adopted an interim revision of the fuel price forecasts in September 2007 in response to the finding in the Biennial Monitoring Report that fuel prices had significantly increased. 2008 prices continued to increase to extreme levels in early summer. Although they have moderated some since, expectations are for higher prices than the September 2007 forecast. The level of uncertainty is also higher, resulting in wider ranges of fuel price forecasts.

To characterize the forecasts concisely, natural gas prices in the medium forecasts range from \$7 to \$8 dollars per million Btu at the wellhead. This is similar to current prices and also represents a range of costs expected for new supplies of non-conventional natural gas. The medium case world oil price forecast is in the \$65 to \$75 per barrel range, significantly lower than current prices, which are near \$100.

An issue paper is attached that describes the preliminary draft fuel price forecasts. Staff would like to circulate this draft for public comment, after some editorial work. I will briefly summarize the forecast for the full Council and seek approval to make the paper available for comment. The forecasts already incorporate advice received from the Natural Gas Advisory Committee, which met on August 15, 2008.

Attachments- Please note that the appendices for the issue paper have been sent to you via email.

Preliminary Draft Fuel Price Forecasts for the Sixth Power Plan

Council Meeting
October 16, 2008
Missoula, MT



Purpose

- Examine competition between fuels and electricity in consumption
- Estimate the cost of generation from fuel-fired power plants
- Understand the risks to the power system associated with uncertain and volatile fuel prices

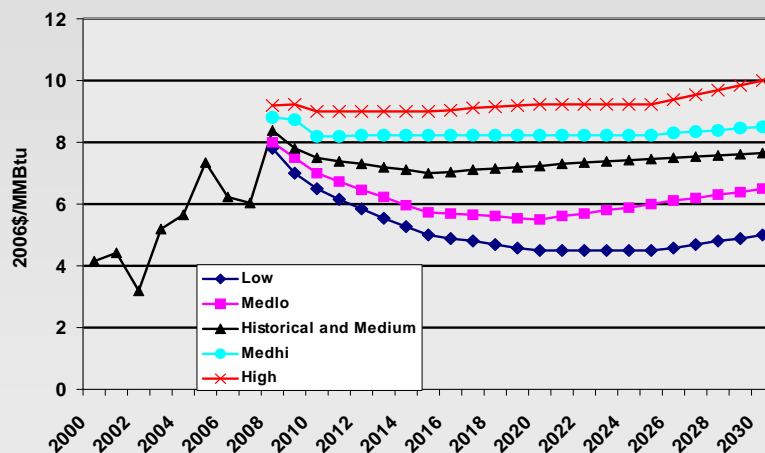


Energy Market Changes Since 5th Power Plan

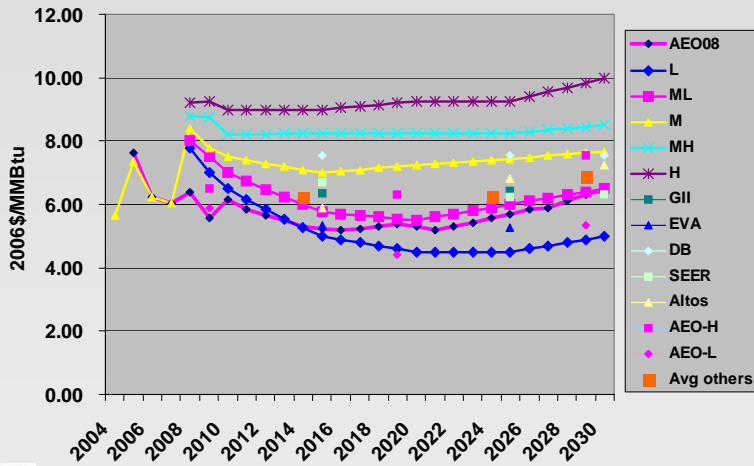
- World economic growth
- Decline in the value of the dollar
- Weak energy supply response
- 2005 hurricane damage
- Middle East conflict
- Climate change issues



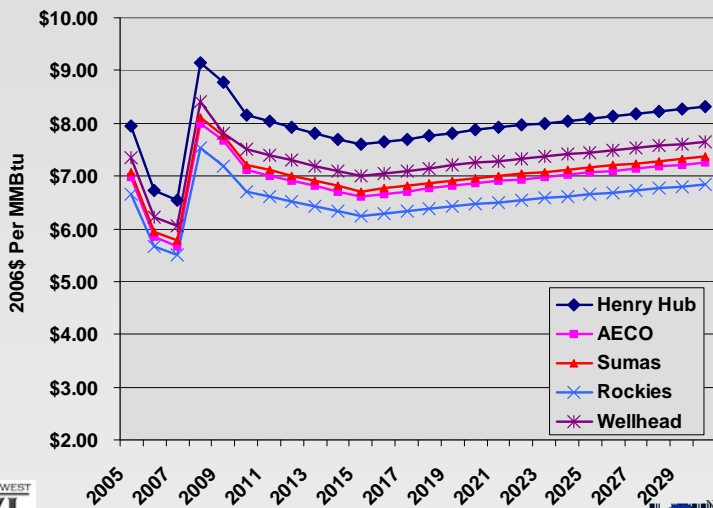
Wellhead Natural Gas Price Forecast Range



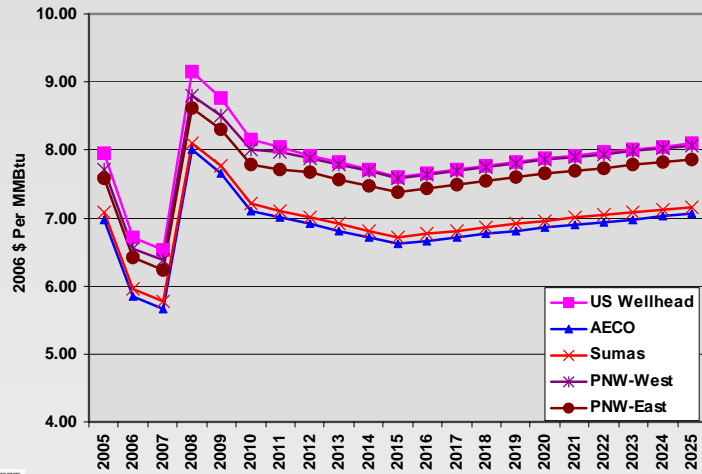
Comparison to Other Natural Gas Price Forecasts



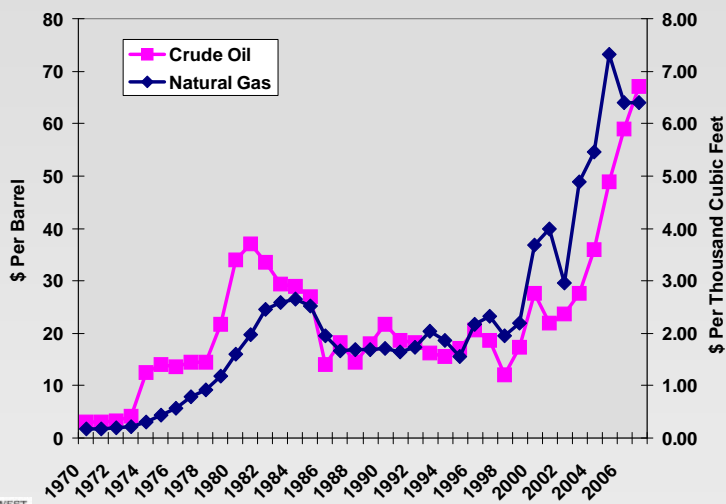
Regional Natural Gas Hub Prices: Compared to Commodity Prices



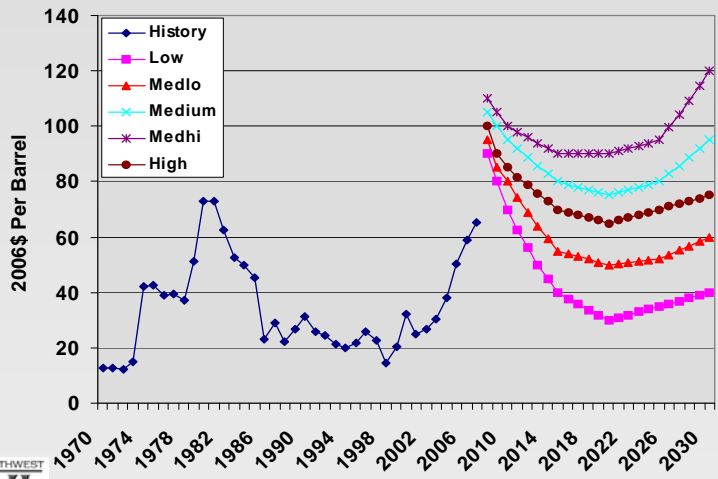
Regional Hub Prices vs. Delivered to Northwest Generators



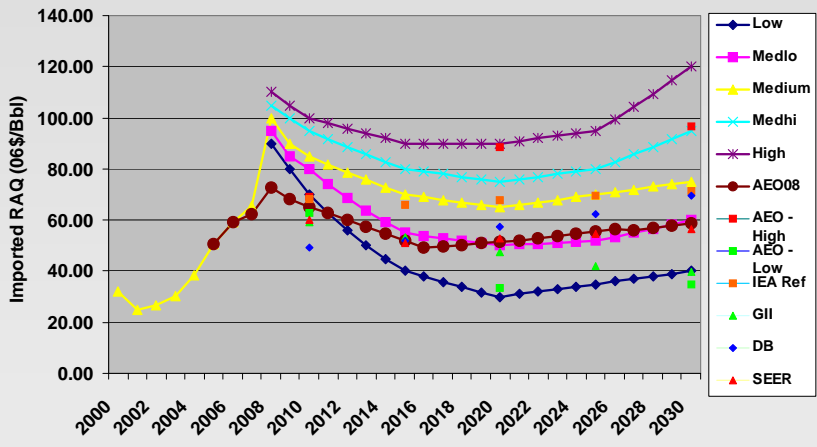
Oil and Natural Gas Prices



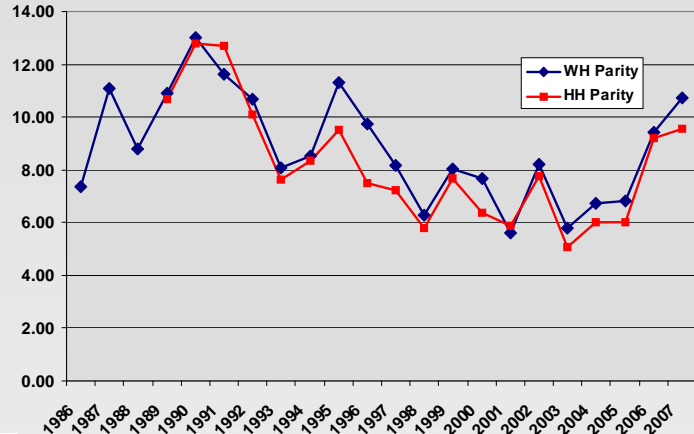
World Oil Price Forecast Range



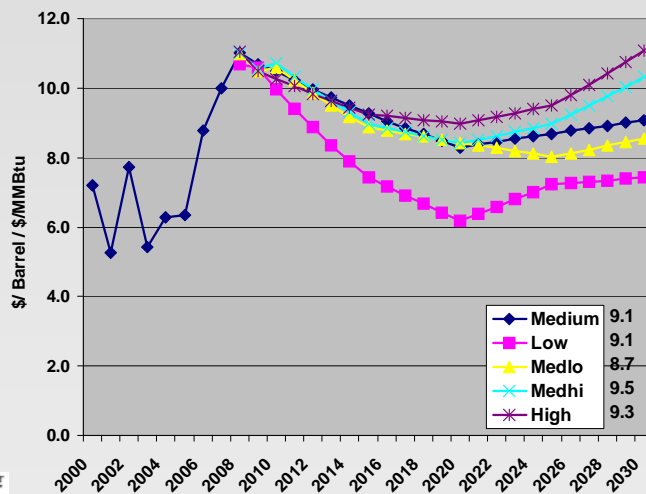
Comparison to Other Oil Price Forecasts



Fuel Price Parity (Ratio \$/Barrel to Wellhead Price)



Forecast Parity (Crude Oil / HH Natural Gas Prices)



Powder River Basin Coal Price Forecast

