



Wholesale Electricity Price and Retail Requirements, and Natural Gas Price Forecasts

Michael Schilmoeller
Power Committee
Thursday January 8, 2009

Overview

- Wholesale electricity prices
- Energy requirements
- Natural gas price



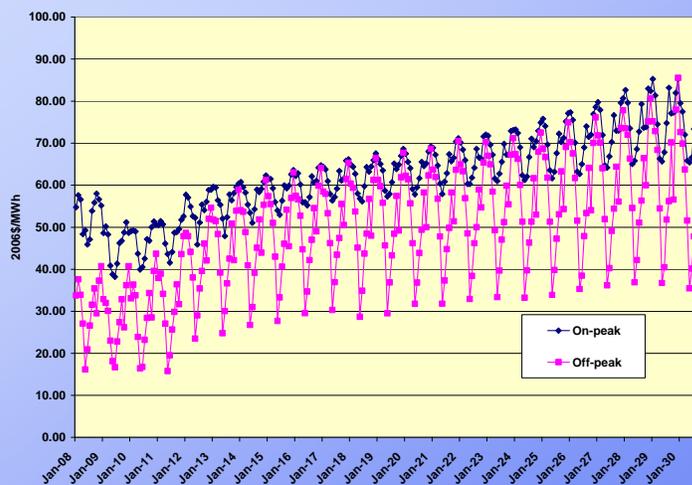
Current Electricity Price Forecast

- Interim, created Monday 1/5/2009
- PNW prices east of the Cascades
- Average hydrogeneration conditions
- Most recent electricity requirements forecast
- Most recent (11/28/2008) natural gas price forecast
- To be updated:
 - CO2 penalty assumptions
 - RPS resource development assumptions
 - cost and availability of new resources



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Current Electricity Price Forecast



Source: chart "MONTHLY PRICES", wkb "AO_6P_11112008_ABL_HD MONTHLY POWER PRICE FORECAST.XLS"

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Current Electricity Price Forecast

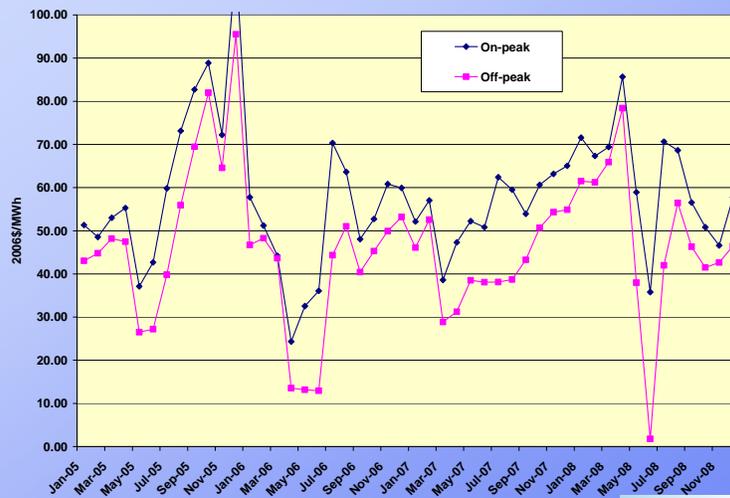


Source: chart "MONTHLY PRICES2", wkb "AO_6P_11112008_ABL_HD MONTHLY POWER PRICE FORECAST.XLS"

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Current Conditions (ICE)



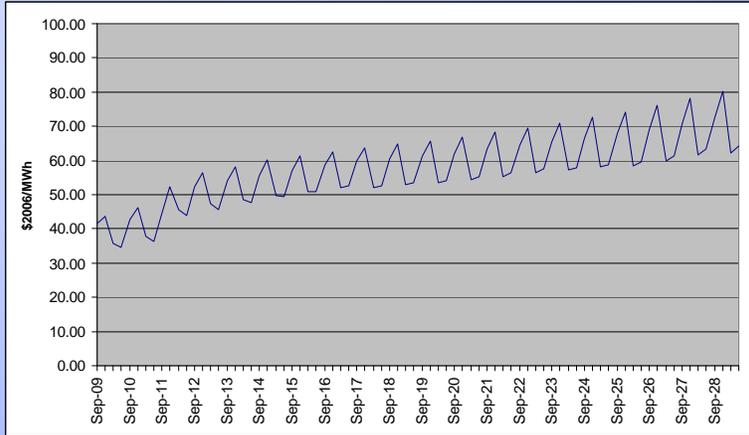
Source: chart "Chart 1", wkb "ICE MONTHLY AVERAGE 2005-2008.XLS"

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Current Electricity Price Forecast

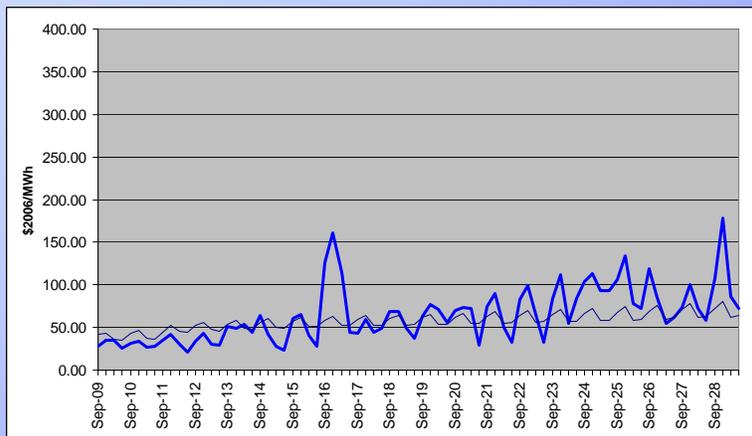
On- and Off-Peak Average



Source: wks "Electricity Price Futures", wkb "Illustrations and graphs from 7 L805 after extraction.xls"



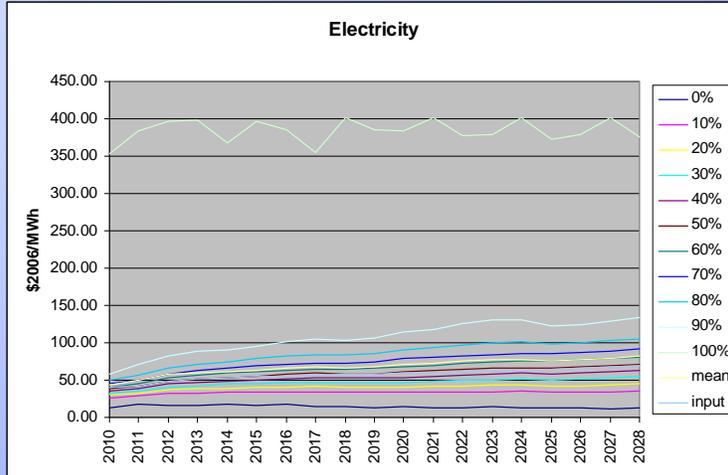
Current Electricity Price Futures



Source: wks "Electricity Price Futures", wkb "Illustrations and graphs from 8 L805 after extraction.xls"



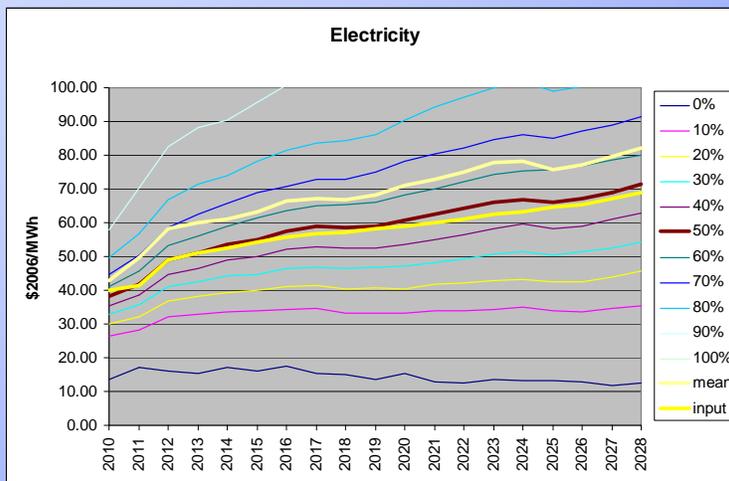
Deciles for Electricity Price



Source: wks "EP Deciles", wkb "Illustrations and graphs from L805 after extraction.xls" 9



Close-Up on Deciles



Source: wks "EP Deciles", wkb "Illustrations and graphs from L805 after extraction.xls" 10



Overview

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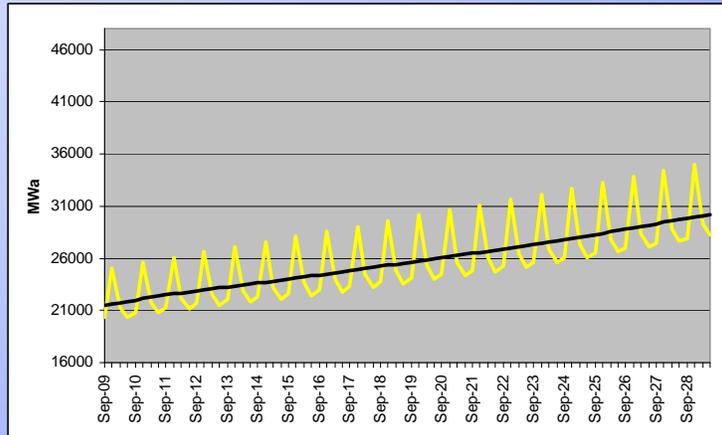
Current Frozen Efficiency Load Forecast

- Regional loads without the aluminum smelters, i.e., "Non-DSI" loads
- Total requirements, including those for system energy losses, i.e., "bus bar" loads
- Loads in the absence of any customer response to market prices or to new conservation program availability or technology, i.e., "frozen efficiency" loads
 - Include, however, conservation due to legislated programs and national appliance standards in place at the beginning of the study.

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Current Frozen Efficiency Load Forecast

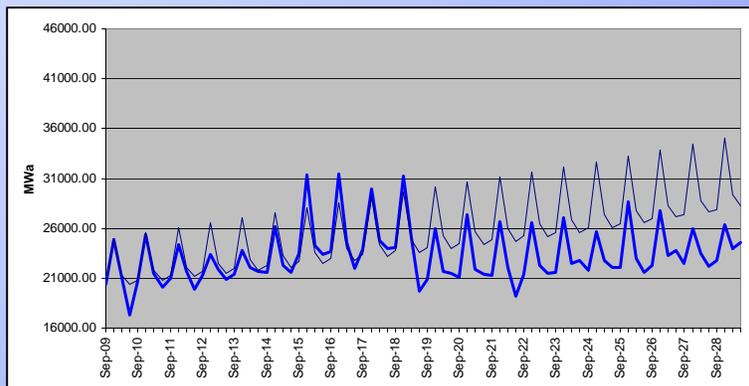


Source: wks "Load Deciles", wkb "Illustrations and graphs from L805 after extraction.xls"

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Applying the Fifth Plan's Range Futures

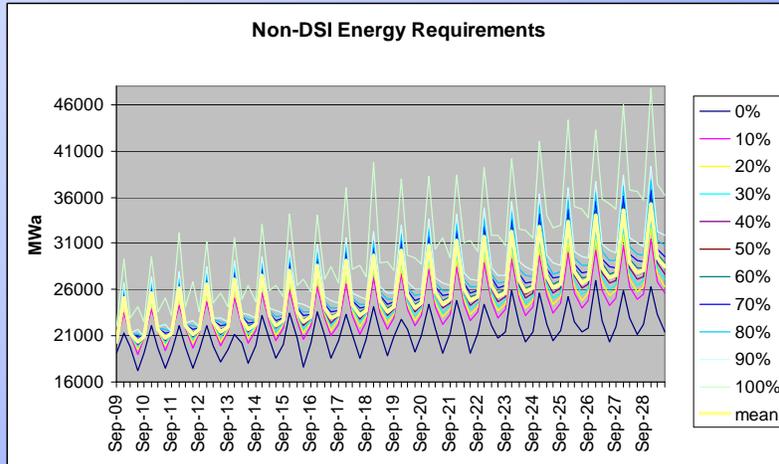


Source: wks "Load Futures", wkb "Illustrations and graphs from L805 after extraction.xls"

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Distribution in Deciles

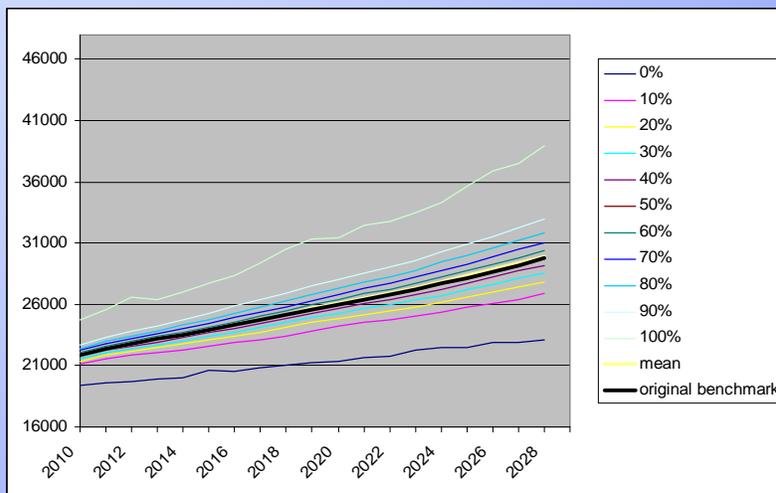


Source: wks "Load Deciles", wkb "Illustrations and graphs from L805 after extraction.xls"

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Annualized for Comparison

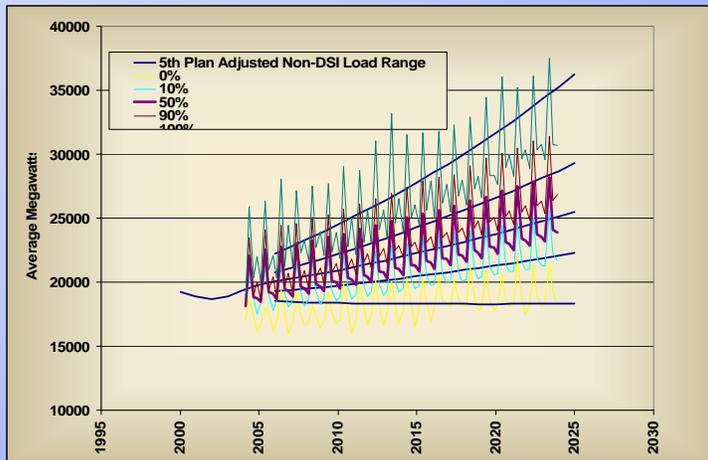


Source: wks "Load Deciles", wkb "Illustrations and graphs from L805 after extraction.xls"

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Comparison with Fifth Plan

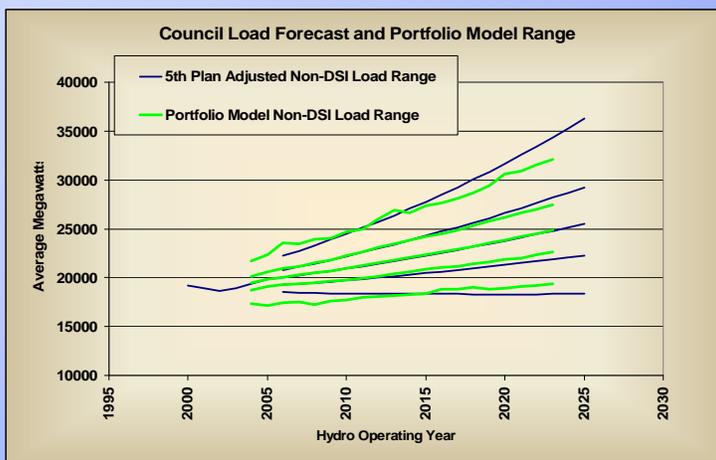


Source: Figure P-35, Appendix P, NWPCC Fifth Power Plan

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Comparison with Fifth Plan



Source: Figure P-34, Appendix P, NWPCC Fifth Power Plan

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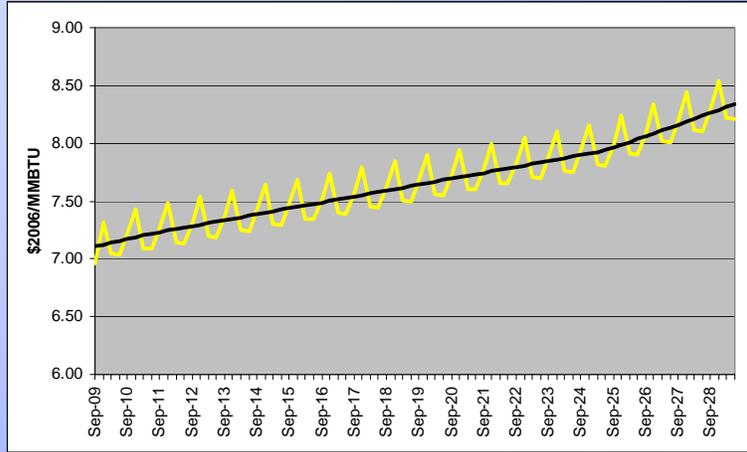
Current Forecast

- Latest Draft Natural Gas Price Forecast (developed 11/21/2008)
- “Medium” case
- Variable price component only
 - Fully allocated price is about \$0.50/MMBTU higher
- PNW price west of the Cascades (“Westside price”)
 - Eastside prices forecast to remain about \$0.60/MMBTU lower

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Current Forecast

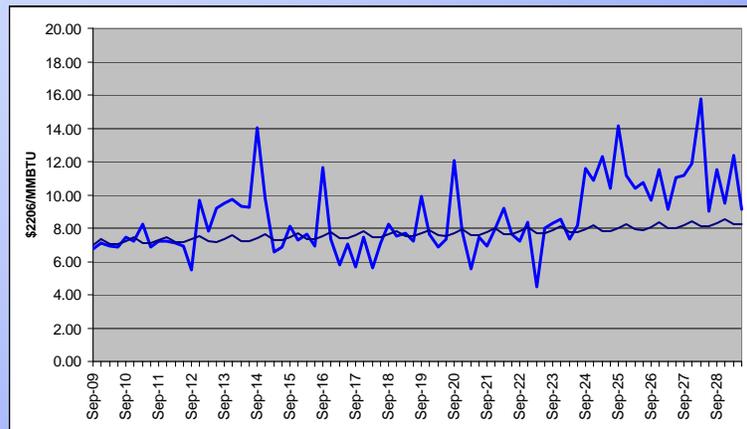


Source: wks "NGP deciles", wkb "Illustrations and graphs from L805 after extraction.xls"

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Futures for Natural Gas Prices

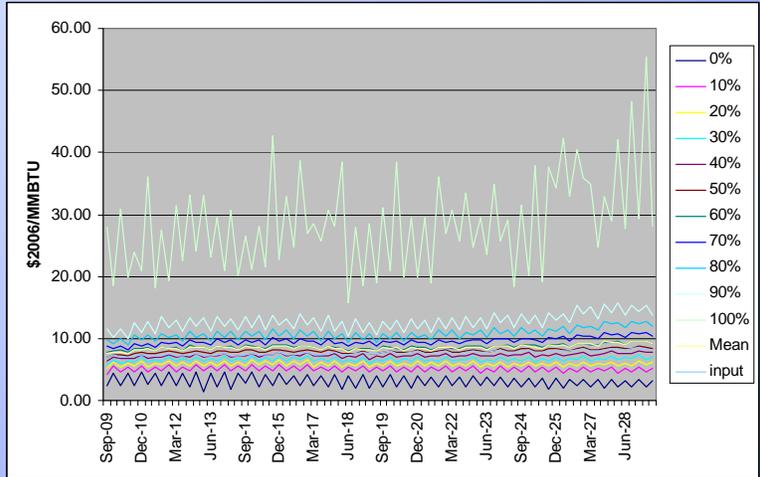


Source: wks "NGP futures", wkb "Illustrations and graphs from L805 after extraction.xls"

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Natural Gas Price Deciles

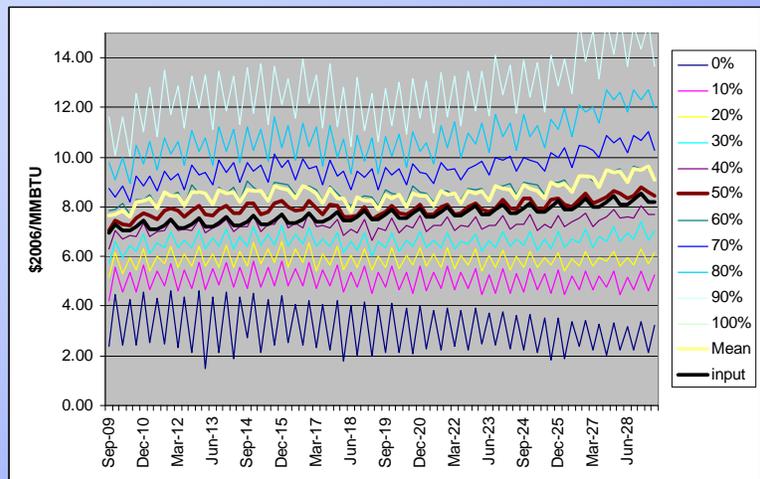


Source: wks "NGP deciles", wkb "Illustrations and graphs from L805 after extraction.xls"

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Natural Gas Price Deciles

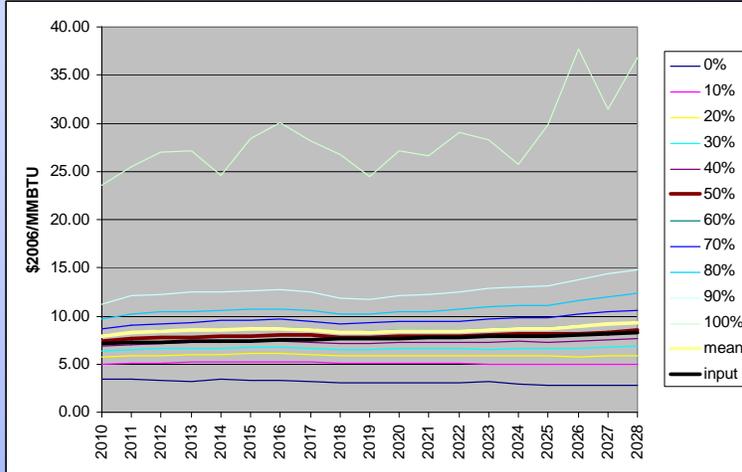


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Natural Gas Price Deciles

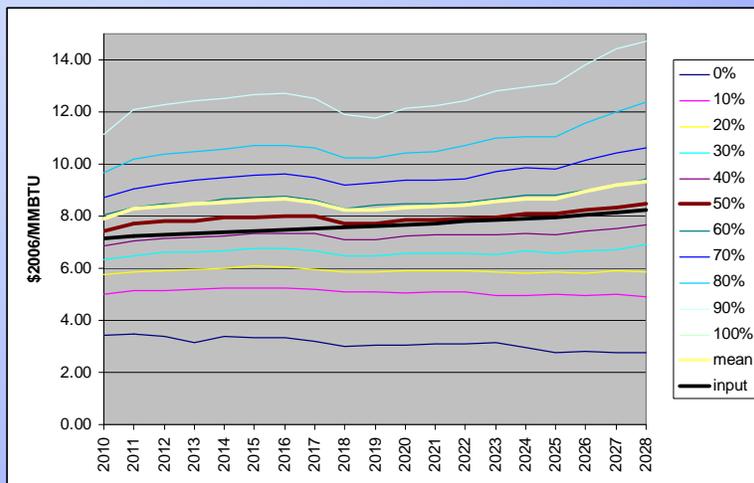


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Natural Gas Price Deciles

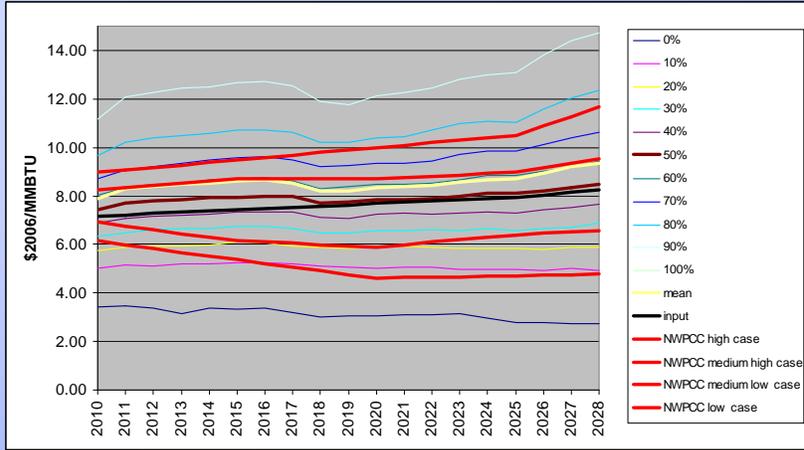


Source: wks "NGP deciles", wkb "Illustrations and graphs from L805 after extraction.xls"

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Natural Gas Price Deciles



Source: wks "NGP deciles", wkb "Illustrations and graphs from L805 after extraction.xls"

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End