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January 6, 2010

MEMORANDUM

TO: Power Committee

FROM: Jeff King, Senior Resource Analyst

SUBJECT: Revised power price forecast for the final Sixth Power Plan

A number of factors affecting the forecast of wholesale power prices have changed since the preparation of the forecast used for the draft plan. These factors include a revised discount rate, a revised natural gas price forecast, a modified forecast of CO₂ allowance price, updated information regarding power plant outage rates, a revised forecast of renewables development to meet the renewable portfolio standards of the western states, revised demand forecasts for the western states, an updated inventory of power generation facilities in the West, newly available hourly production information for wind and solar resources and an expanded set of new generating resource options.

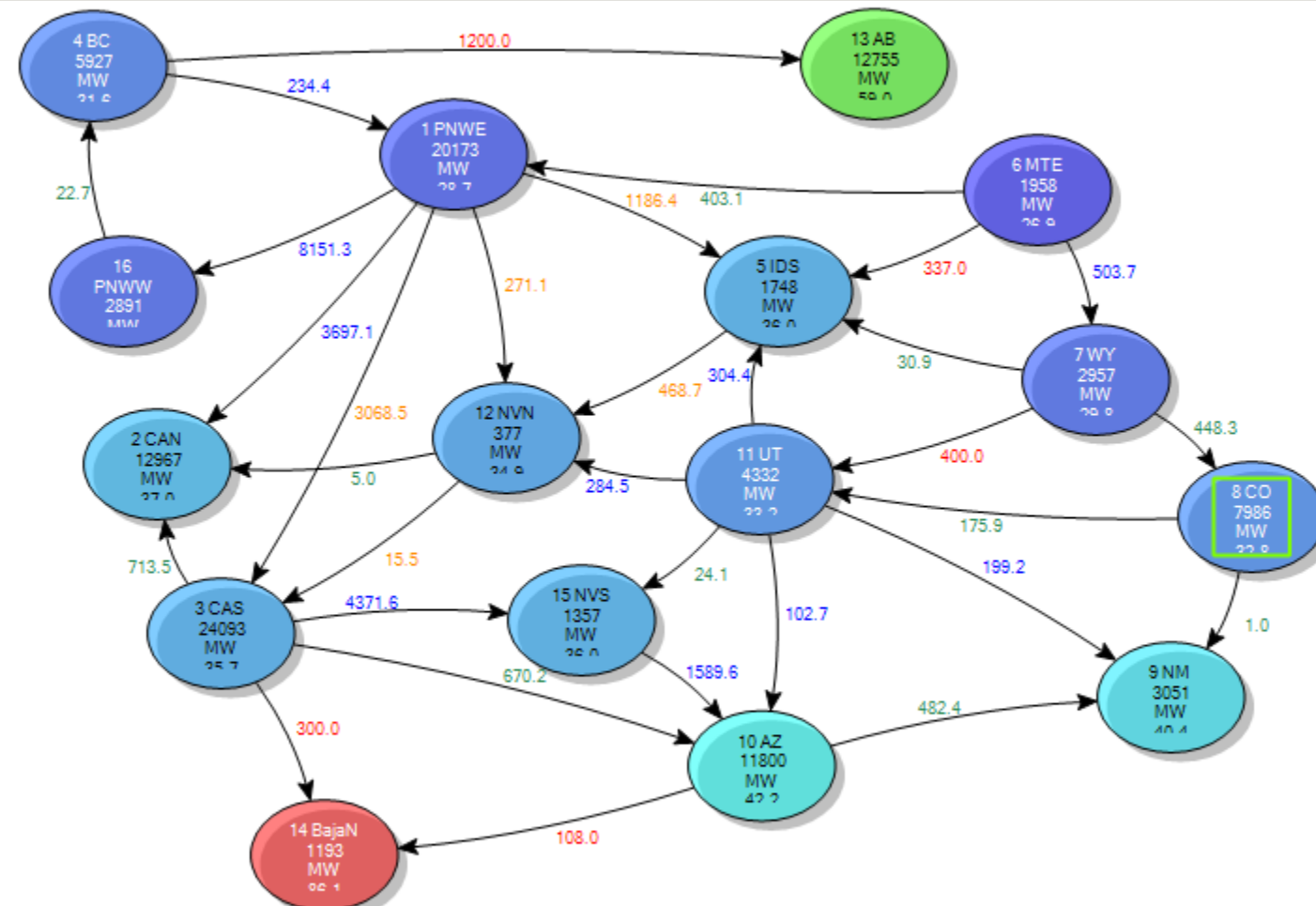
The combined effect of these factors is to reduce the 20-year levelized wholesale electricity price forecast from \$62/MWh in the draft plan to \$56/MWh.

Staff will discuss the revised forecast at the January Power Committee meeting. Presentation materials will be provided later this week.

Final Wholesale Electricity Price Forecast

Jeff King
Power Committee
January 12, 2010

System Diagram for NPCC R5B11



Recent Projects

- Apr_6PFinal_B4LoScenario 010510HR2_010710.apz
- Apr_6PFinal_B4LoScenario 010510HR.apz
- Apr_6PFinal_Base4 121609HR.apz
- Apr_6PFinal_Base4 010610HR.apz
- Apr_6PFinal_B4HiScenario 010610HR.apz
- Apr_6PFinal_Base4 121609HR2.apz
- Apr_6PFinal_NGMedLo 010510HR.apz
- Apr_6PFinal_NGMedHi 122309HR.apz
- Apr_6PFinal_B4CO2_40pt PoE_010210HR.apz
- Apr_6PFinal_B4CO2_40pt PoE_010210LT.apz
- Apr_6PFinal_B4CO2_40pt Ex 010210LT.apz
- Apr_6PFinal_Base4 121609LT.apz
- More files ...

Input Templates

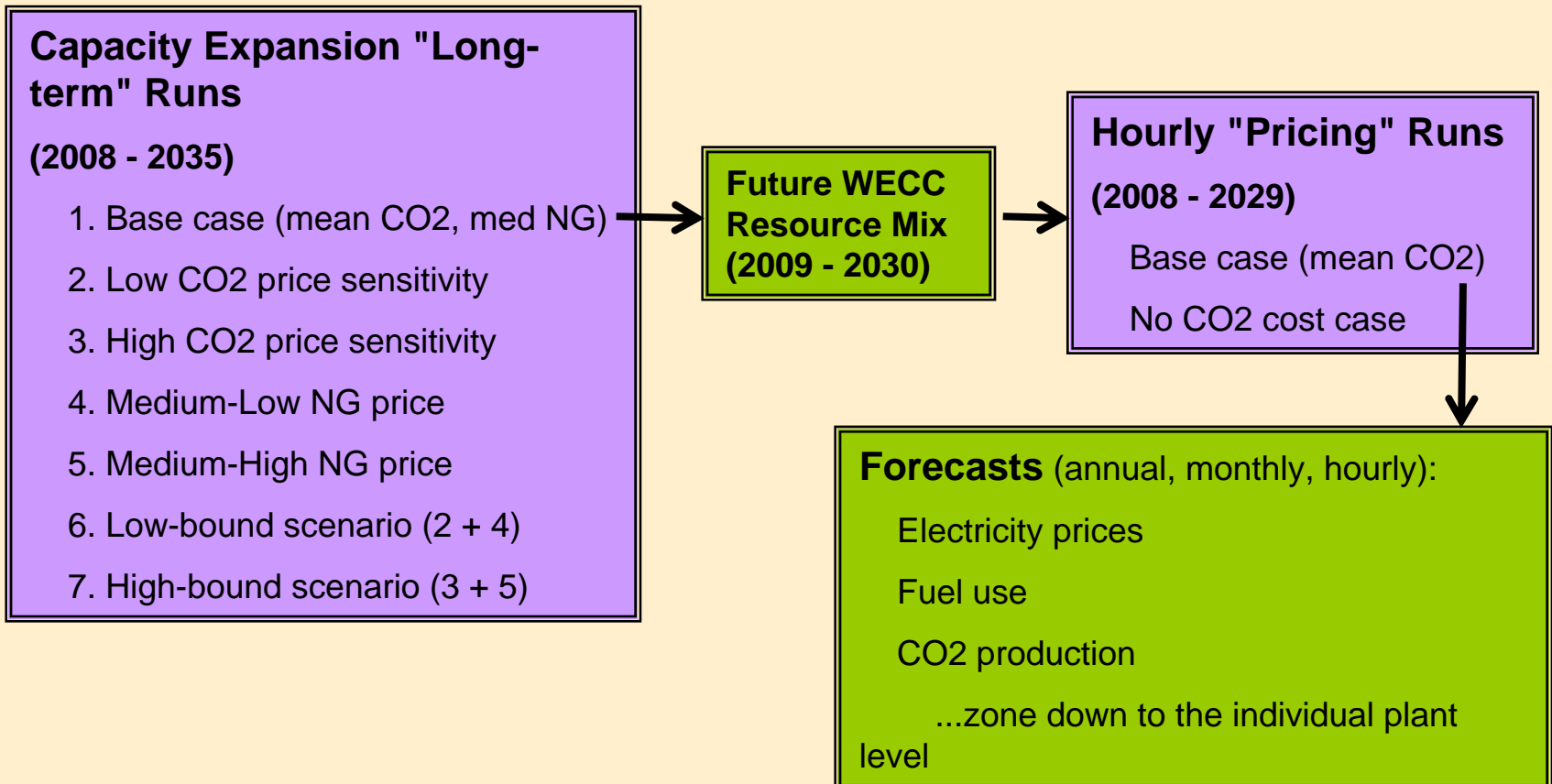
Memory Templates

Output Templates

Chart Templates

Report Templates

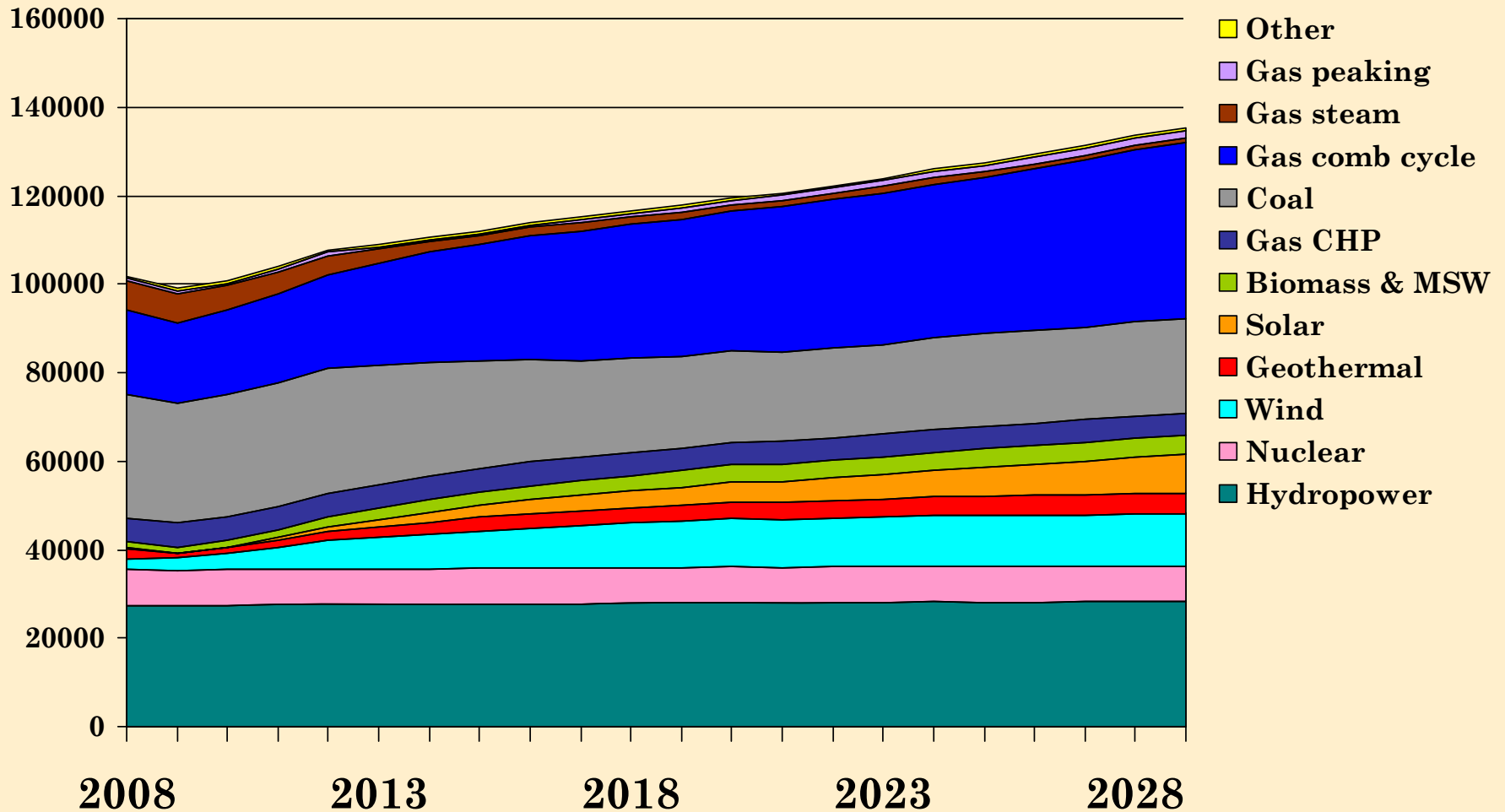
Developing the electricity price forecast



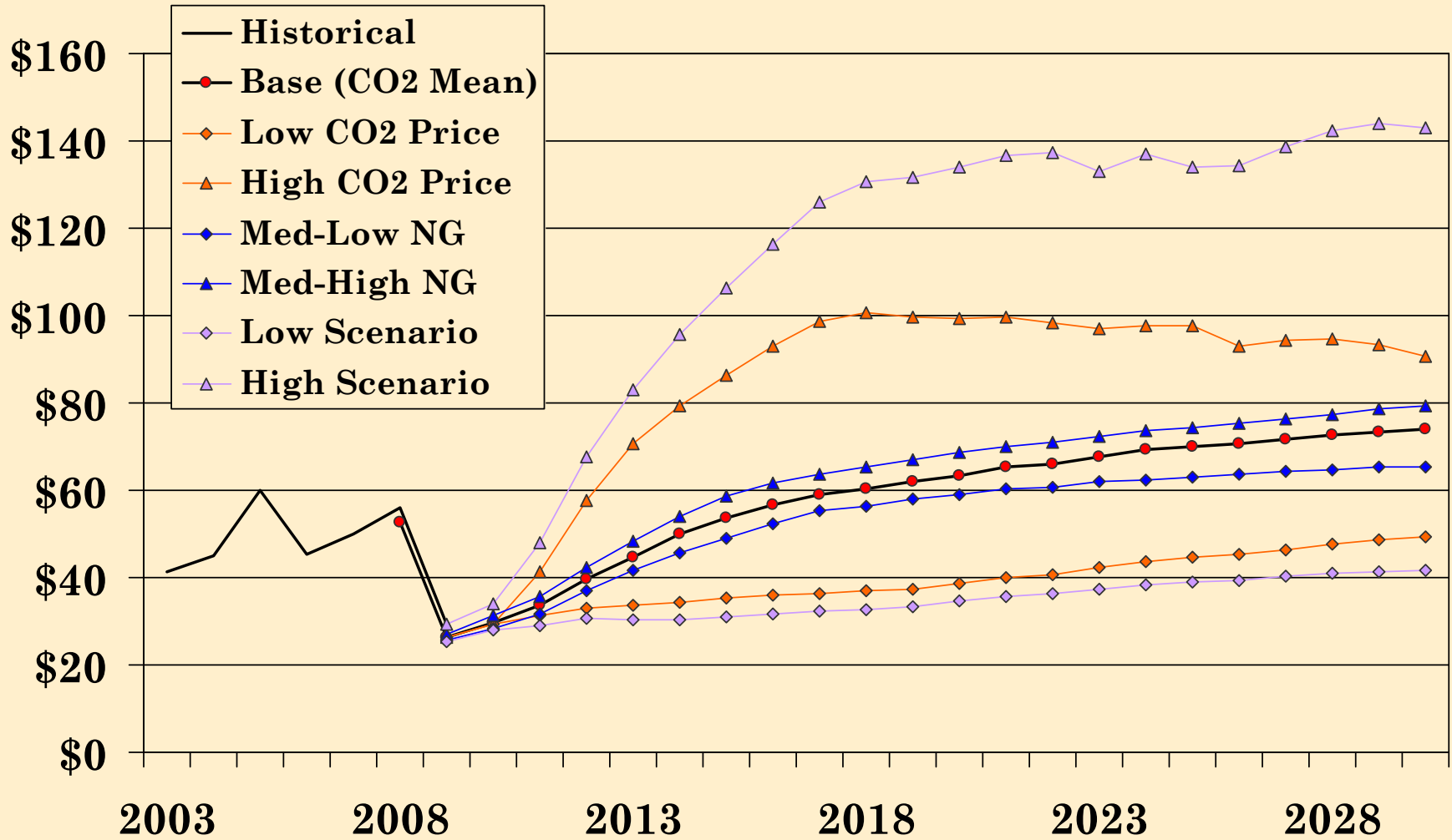
Updates to the draft price forecast (Feb 2009)

- Updated version of AURORA^{xmp}
- Updated forecast of general inflation
- Final discount rate and corresponding project financing assumptions
- Final CO2 allowance price forecast
- Updated plant outage assumptions
- Updated inventory of WECC projects
- Final natural gas price forecast
- Updated PNW & other WECC zonal loads
- Final RPS resource development forecast
- Hourly wind and solar output using representative values
- Expanded selection of new resource options

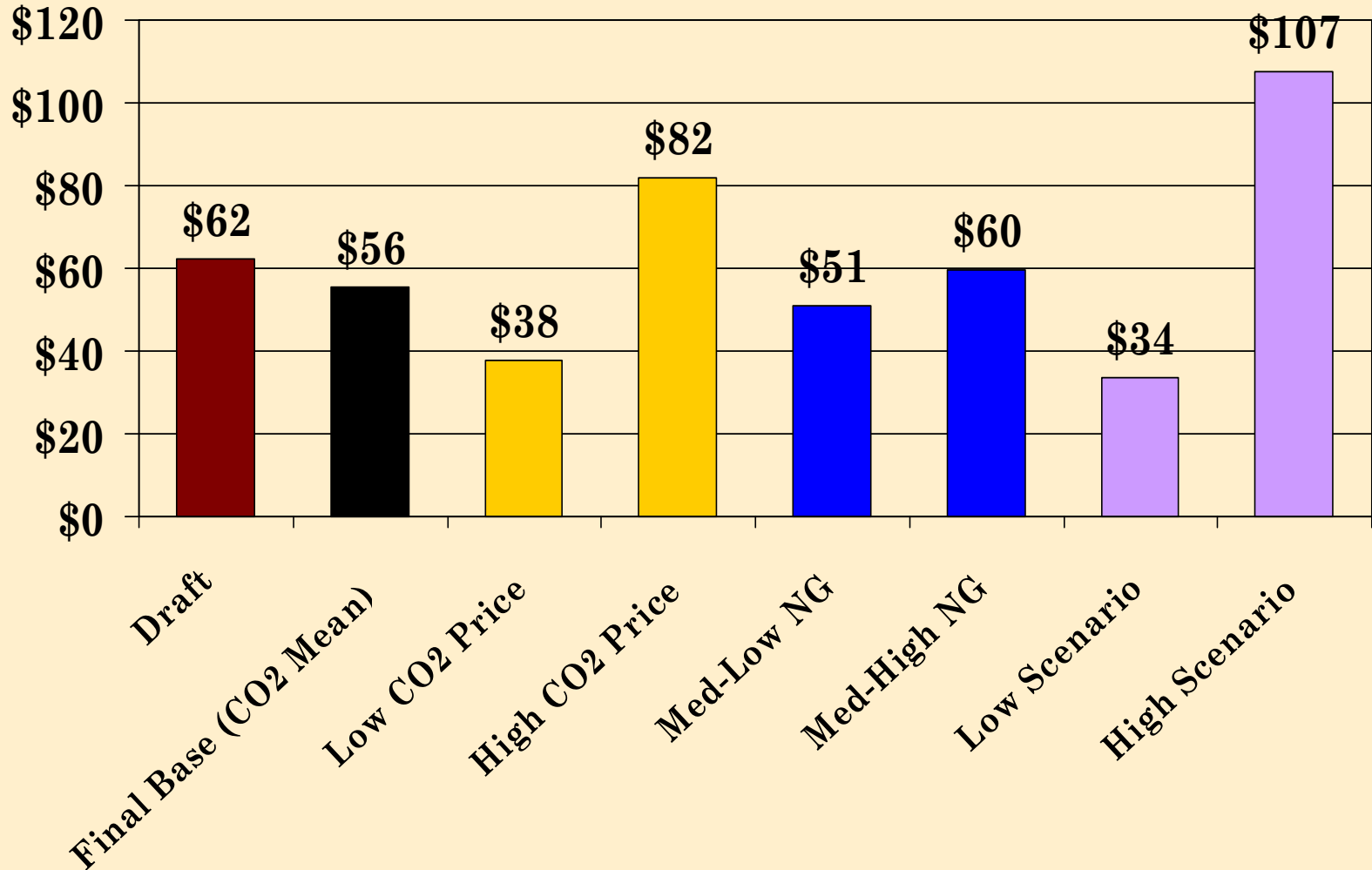
WECC Resource Output (Mean CO2 case)



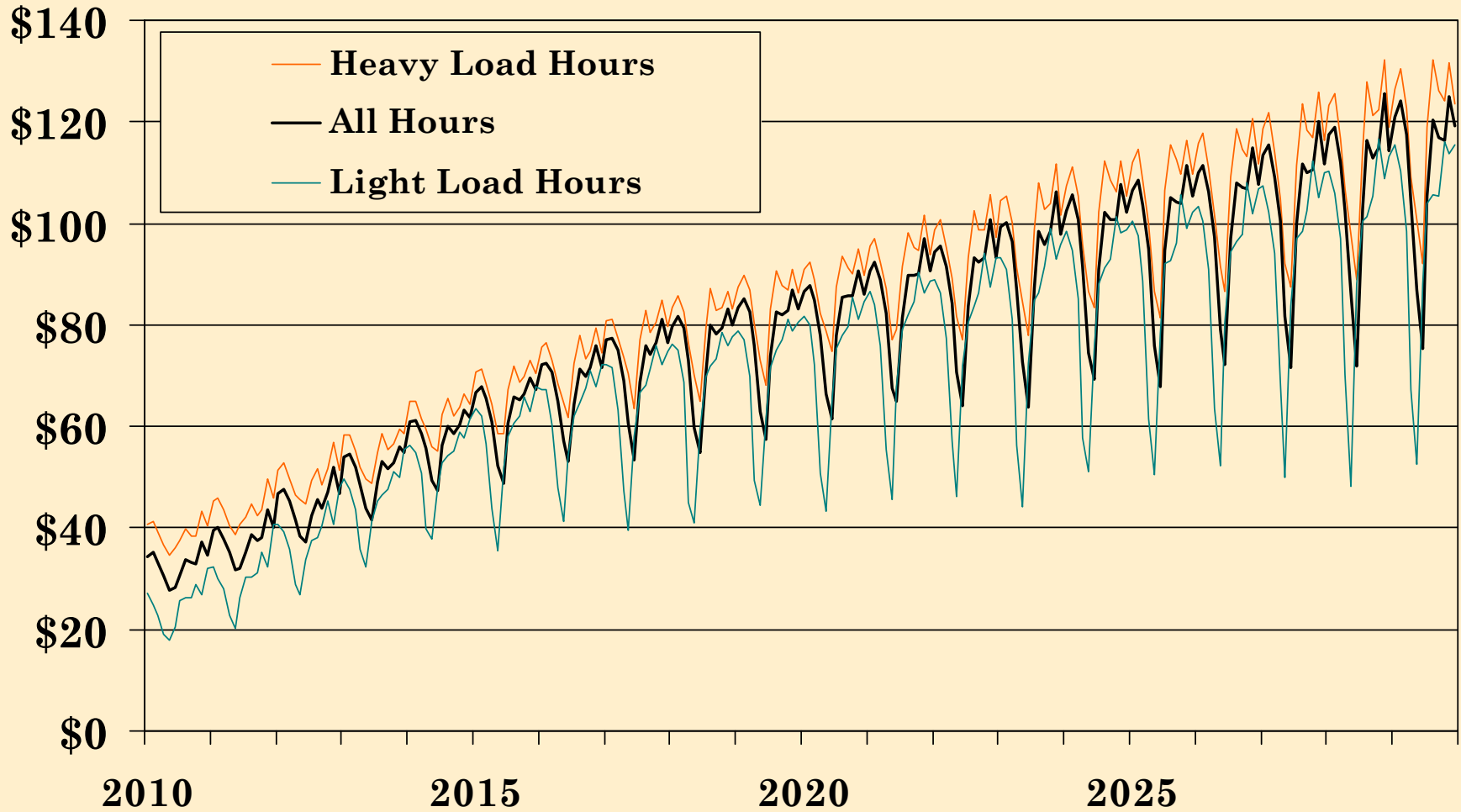
Mid-Columbia Electricity Price Forecast



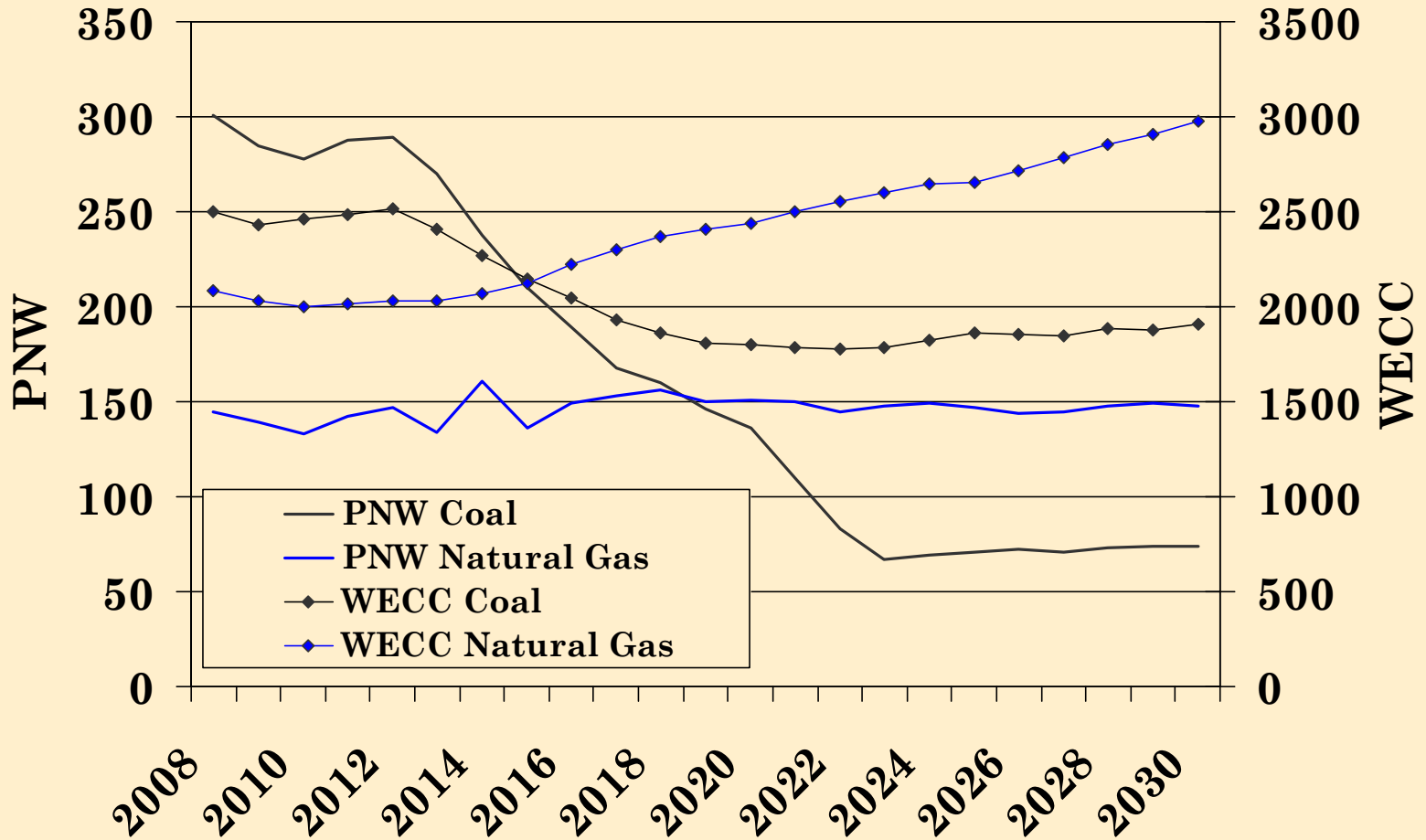
Levelized Prices 2010-29



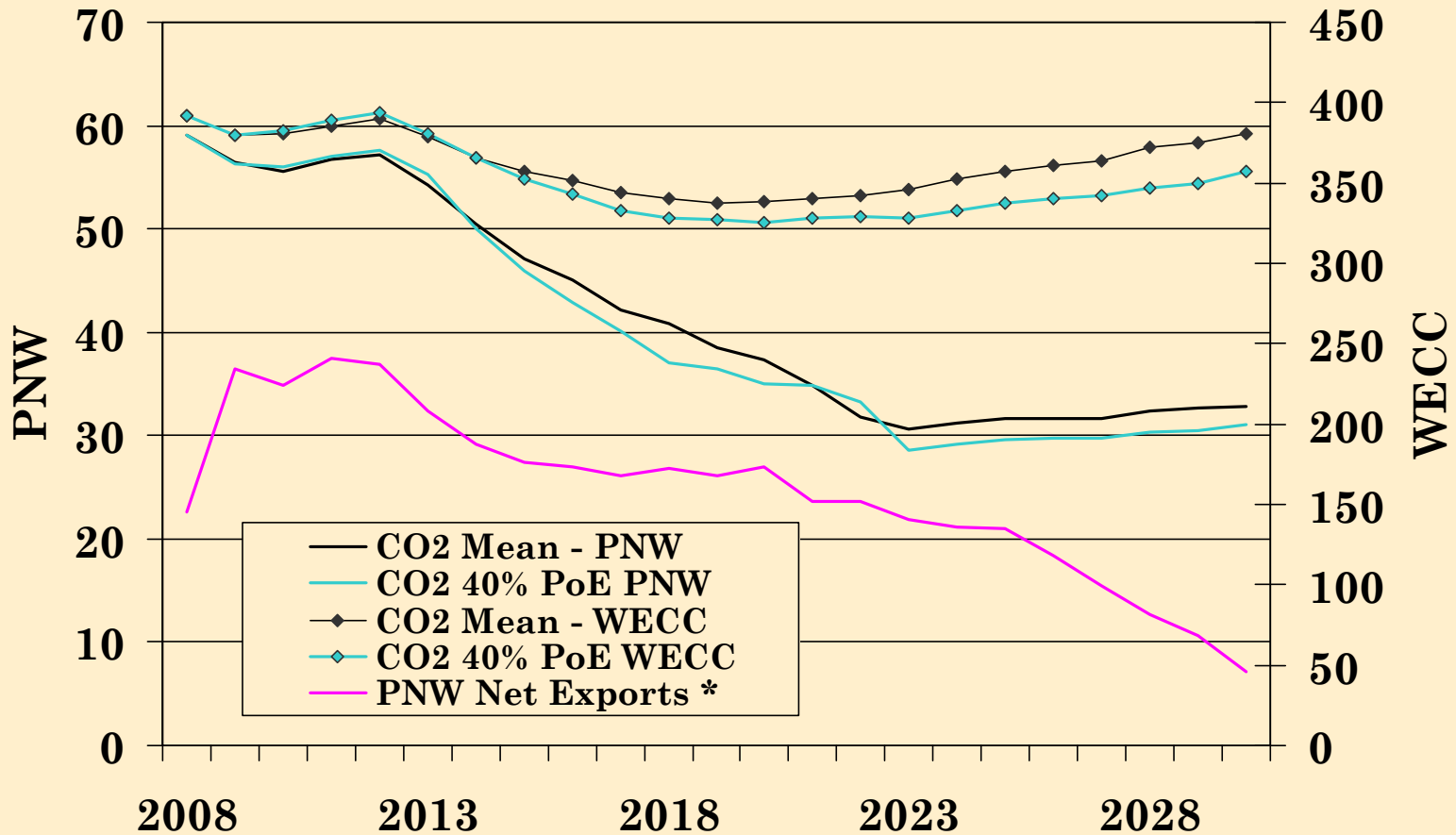
Base Forecast: Monthly Averages



Fuel Consumption (TBtu)



CO2 Production (MMtCO2/yr)



* GWh x 100