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September 6, 2005

## MEMORANDUM

**TO:** Council Members  
**FROM:** John Fazio, Senior System Analyst  
**SUBJECT:** Power outlook briefing for winter of 2005-06 - Requires no Council decision

This past year was the 6<sup>th</sup> in a series of below average water conditions for the Columbia River Basin. The 2005 January-through-July runoff volume at The Dalles was approximately 81 million acre-feet or 75 percent of normal. The good news is that the region continues to have surplus supplies relative to projected demands. Current estimates show this year's annual energy load-resource balance to be surplus by about 2,100 average megawatts (based on critical water conditions). This translates into a winter loss-of-load probability (LOLP) of near zero -- well below the 5 percent target the Council has used to assess resource adequacy.

On a monthly basis, resources and loads are more or less in balance from January through June. In July and August the surplus is quite high at or above 6,000 average megawatts and in the fall the surplus ranges from about 1,000 to 3,000 average megawatts. These values are all computed using the 1936-37 water condition (critical water).


Water conditions for this coming year are very difficult to predict because there is very little correlation from one year's runoff volume to the next. The latest Northwest River Forecast Center update indicates that current conditions and recent trends support the continuation of ENSO-neutral conditions for the next 3 to 6 months, meaning that forecasts for this winter's temperature and precipitation remain highly uncertain.

Because the region is surplus, there is a very small chance of a significant curtailment for this winter (even under critical water conditions). While the region as a whole is surplus, many individual utilities face resource shortfalls. This is because most of the region's surplus comes from Independent Power Producer (IPP) resources. Some IPP generation is contracted to serve out-of-region loads but this is taken into account in our assessment of the region's load-resource balance. Also, some utilities have argued that not all IPP generation can be transmitted to load centers when needed. Council staff does not have the resources in house to assess the validity of these arguments. However, the issue is being discussed in the regional resource adequacy forum.

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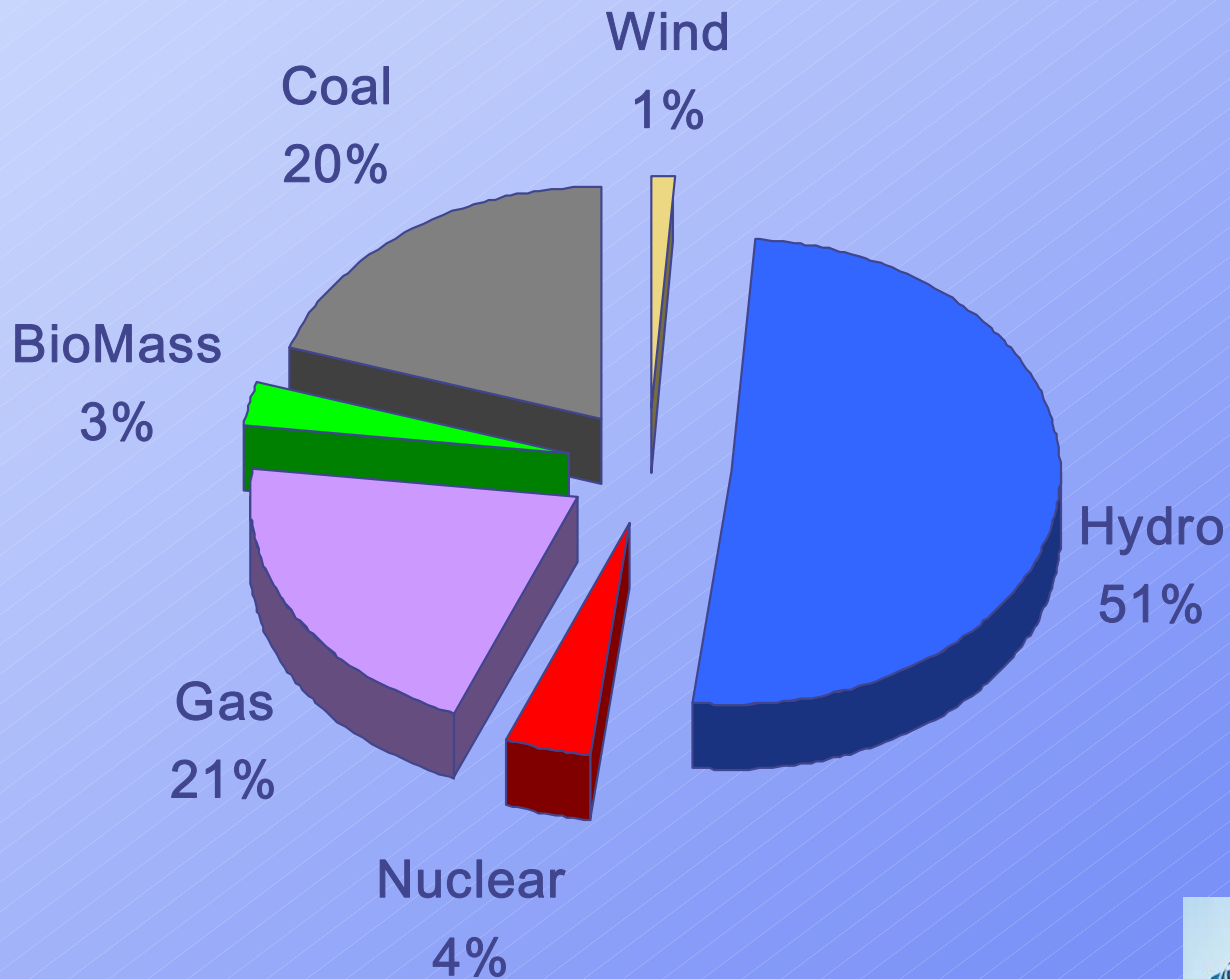
September 15, 2005  
Council Meeting  
Spokane, WA

A topographic map of the Pacific Northwest region, showing the coastline of Washington and Oregon, and the mountainous terrain of Idaho and Montana. The map uses color to represent elevation, with greens for lower elevations and browns/yellows for higher elevations. The text is overlaid on the map.

# **Pacific Northwest Power Supply Outlook Winter 2005-06**

# Firm Generating Resources

(Approximately 23,000 aMW for 2005-06)



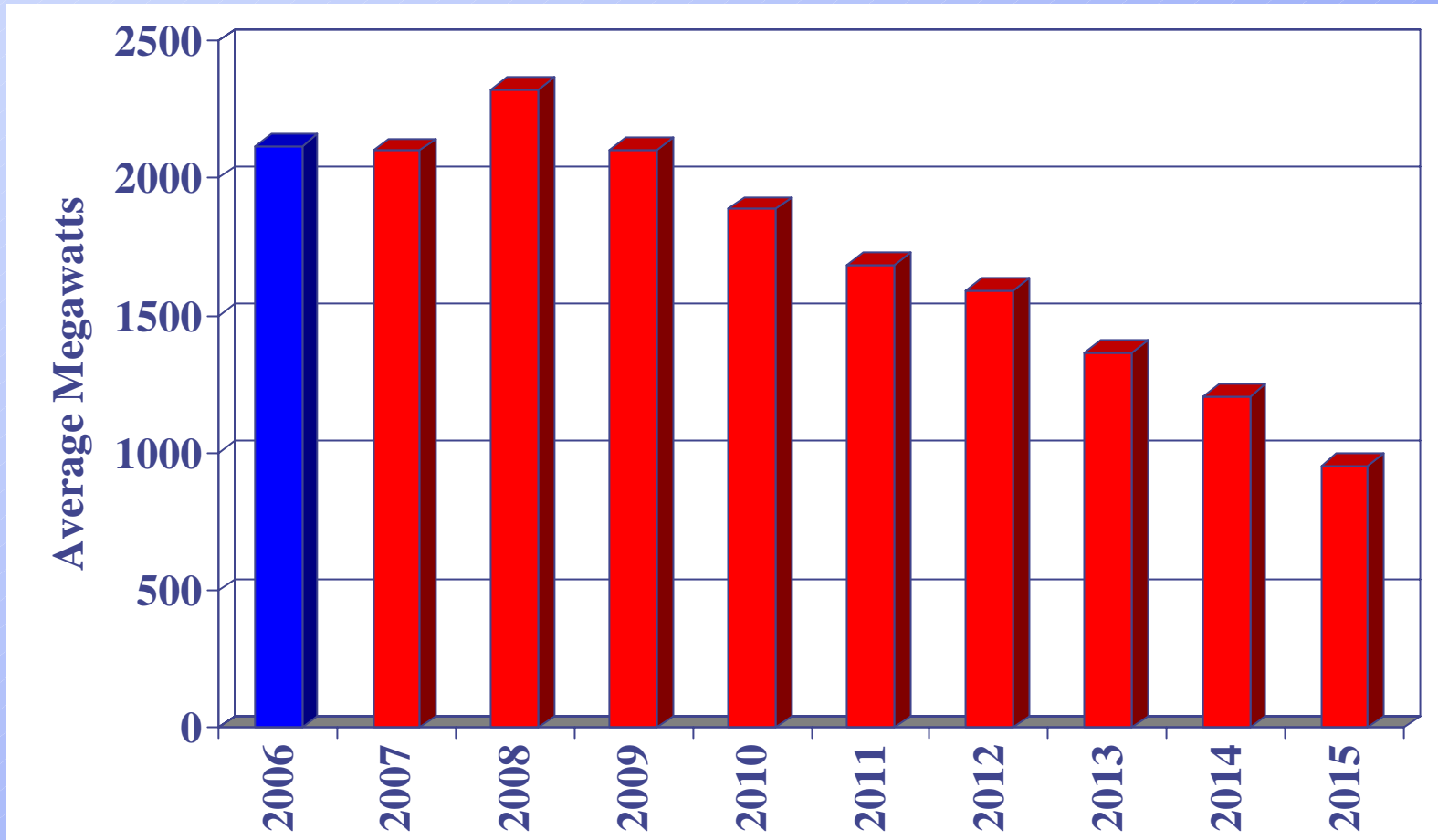
# Resources and Demand

(Approximate for 2005-06)

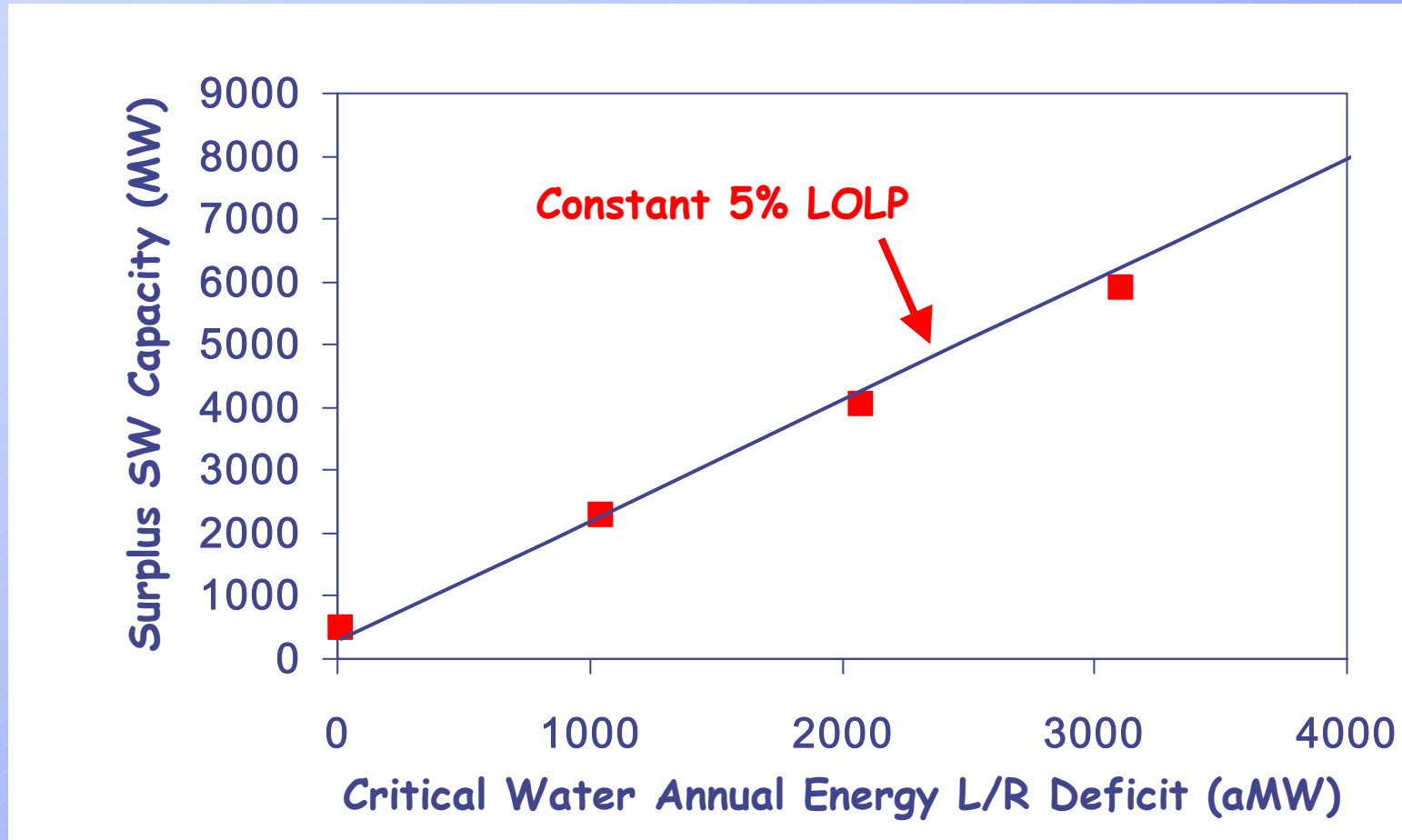
- **Total firm resources** **23,000 aMW**
- **Minus total firm demand** **20,900 aMW**
- **Yields a net surplus of** **2,100 aMW**

# Forecast Load/Resource Balance

Critical Water, Medium Load Forecast, Existing Resources Only  
Firm contracts only, no spot market imports assumed



# Resource Planning Target as a function of Surplus SW Winter Capacity



# Target vs. SW Surplus

SW Winter Surplus (Capacity in MW)	Planning Target (L/R balance in aMW)
4,000	-2,000
3,000	-1,500
2,000	-1,000
1,000	-500
0	+500

# Current Status – Well Above Target

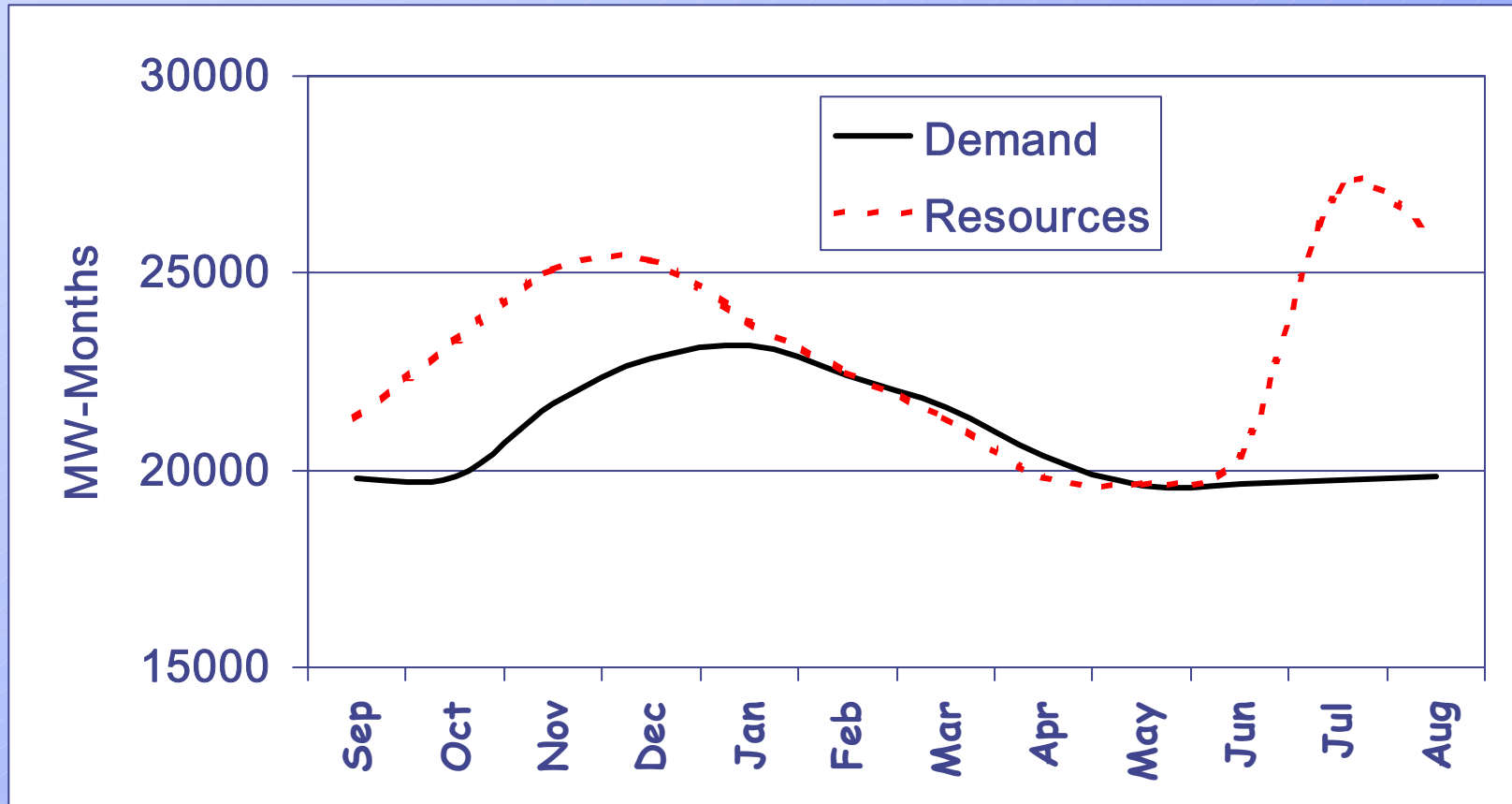
- Forecast L/R balance is **+ 2,100 aMW**
- Planning target is **-1,500 aMW**
  - To achieve a 5% LOLP
  - Assumes 3,000 MW of surplus SW winter capacity
- Forecast L/R balance is **3,600 aMW** above the planning target
- LOLP is near zero

# Current Status – Well Above Target

- Assuming no imports from the SW
  - The planning target to achieve 5% LOLP would be **+500 aMW**
  - Forecast L/R balance would still be **1,600 aMW** above that target
- LOLP would be well under 5 percent

# Monthly Demands and Resources

(2005-06, Medium Forecast, Critical Water)



# Approximate Monthly L/R Balance 2005-06

(2,116 aMW annual average using critical water)

