

# Benchmark Process for the GENESYS Model

Resource Adequacy Technical Committee Meeting

November 17, 2006

## Outline

**Objective** – Develop a benchmark for the GENESYS model that will assure its accuracy in simulating the operation of the NW power supply.

**Data Review:** Documentation will include the source, date and any validation methods used.

- Thermal Resources
- Hydroelectric Resources
- Conservation
- Renewable Resources
- Interregional Contracts
- Electricity Demand
- Electricity Prices
- Fuel Prices

**Simulation Review:** GENESYS results will be compared to other model outputs, to historic operations (whenever appropriate) and will be reviewed by system operators. Outputs will be checked for both physical accuracy (i.e. power production vs. turbine flow) and for policy appropriateness.

### Monthly Operation

- Entire system
- Thermal – Compare dispatch with historic values (when appropriate)  
Compare dispatch with output from other models
- Hydro – Compare to BPA's HYDSIM output
- Conservation
- Renewable
- Market

### Hourly Operation

- Entire system
- Thermal – Compare dispatch with historic values (when appropriate)  
Compare dispatch with output from other models
- Hydro – Compare to BPA's HOSS output
- Conservation
- Renewable
- Market

## **Suggested Benchmark Analyses:**

Compare GENESYS LOLP assessments to other model results.  
Perform a “back-cast” analysis?

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