



CHELAN COUNTY

# 2008 Integrated Resource Plan

## **Draft Portfolio Analysis Results**

May 12, 2008

# Overview



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- Brief recap of IRP introduction from 1/28/08
- Model Portfolio Scenarios
- Renewables to meet Renewable Portfolio Standard (RPS)
- Conservation to meet RPS
- Board and Public Process Schedule

# What is an Integrated Resource Plan?



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- It is a process which utilities can use to plan the portfolio of generating and conservation and efficiency resources to be used to meet the current and future loads of retail customers
- Produces a long-term resource strategy

# Other Benefits of IRP



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- Helps assess how different portfolio strategies manage risk exposures such as...
  - Load growth
  - Production costs
  - Resource mix (primarily hydro variability)
- Helps identify robust strategies
  - Avoid strategies that depend upon specific events to make a strategy succeed
- Document shared consensus on known facts and projections

# Why an Integrated Resource Plan?



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- IRP process can assist policy makers in developing the utility's strategy by:
  - showing how candidate resource strategies would affect the overall portfolio
  - examining trade-offs
- Highlights portfolio evaluation criteria (District values)
  - Service reliability
  - Portfolio cost (cost of power)
  - Portfolio risk (variability in the annual cost of power)
  - Environmental impacts
- Also reflects external requirements
  - Renewable Portfolio Standard



# The Big “Why”

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- Because we are required under RCW 19.280:  
Electric Utility Resource Plans
  - Analysis describing the mix of generating resources and conservation and efficiency resources that will meet current and projected needs at the **lowest reasonable cost and risk** to the utility and its ratepayers
  - Applies to Washington State utilities with more than 25,000 retail
  - September 1, 2008 deadline for report to CTED
    - Progress report every 2 years
    - Updated every 4 years

# What an IRP is **NOT**:



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- A one time effort
- Based on only one set of inputs that are claimed to be correct
- A valid way to justify predetermined conclusions
- Used to develop an overly specific or inflexible resource strategy
- Used to evaluate specific projects



# Model Portfolio Scenarios

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- **Baseline Scenario**
  - Base load growth (1.9%)
  - Base hydro costs (O&M, Capital)
  - Straight line ramp on both retrofit and lost opportunity conservation measures
- **Low Bookend Scenario**
  - Low load growth (1.0%)
  - Low hydro costs (base hydro costs minus 5%)
  - Straight line ramp on both retrofit and lost opportunity conservation measures
- **High Bookend Scenario**
  - High load growth (2.6%)
  - High hydro costs (base hydro costs plus 20%)
  - Accelerated ramp on retrofit conservation measures and straight line ramp on lost opportunity

# Renewables to meet RPS



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- The District's Eligible Renewable Resources
  - Wind ( 9 Canyon )
  - Incremental Hydro
- Based on our interpretation of the current rulemaking, the District's Eligible Renewable Resources are enough to cover the RPS requirement through 2018.



# IRP - Conservation

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- Conservation Potential Study – EES Consulting
  - Conservation Scenarios
    - Business as usual - .3 aMW/yr
    - Conservation Foundation - .82 aMW/yr
    - Phase 1 Utility Analysis - 1.26 aMW/yr
    - Accelerated conservation - 2.11 aMW/yr



# IRP Wholesale Price Forecasts

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- NWPCC draft interim regional price forecast
  - 9% lower than current NWPCC price forecast at time of study
  - Reduces cost effectiveness thresholds of conservation



# IRP Choice - Conservation

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- Conservation Foundation - .82 aMW/yr
  - Federal standards for lighting
    - Change in 2012
    - 48% residential, 49% commercial potential is lighting
  - Foundation for I-937
  - Conservation potential work will continue over the next 20 months

# Summary of Conclusions



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- Preliminary results show that District resources meet loads for all scenarios
- Based on our interpretation of the current rulemaking, the District's Eligible Renewable Resources are enough to cover the RPS requirement through 2018.
- Conservation will have to be increased over the current level.



# Board and Public Process - 2008 (Remaining Schedule - Tentative)

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## **January 28 – Business Meeting**

“An Introduction to Integrated Resource Planning” presented by Becky King, Energy Resources

“Long-Term Forecasts of Spot Market Power Prices” presented by Charles Black, Charles J. Black Energy Economics

## **May 12- Study Session**

“Draft Portfolio Analysis Results” presented by Becky King, Mike Bradshaw and Janet Jaspers from Energy Resources and John from Conservation and Customer Services

## **June 9- Study Session**

Continued Discussions – Draft Portfolio Analysis Results

## **July 7 – Study Session**

Final Draft IRP

## **July 14 – Business Meeting**

Final Draft IRP for Board Approval

(Resolution to be presented)

Major decisions are still ahead for our resource portfolio:

**Establishing I-937 10-year conservation targets** – now through Dec. 2009

**Strategic planning for Post-2011 power contracts** – Sept. 2008 through Dec. 2010

# Chelan PUD IRP Website

[www.chelanpud.org/IRP.html](http://www.chelanpud.org/IRP.html)



CHELAN COUNTY

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## YOUR PUD Integrated Resource Plan

Chelan County PUD is writing an Integrated Resource Plan (IRP) as required by state law, RCW 19.280. The plan outlines the sources of power needed to supply PUD customers through 2018. It will describe the mix of resources from generation, conservation and efficiency that will meet current and projected needs at the lowest reasonable cost and risk to the utility and its customer-owners. PUD commissioners will hold several public meetings to consider aspects of the plan and listen to public comment. The final public meeting is tentatively set for July 14.

### Public hearings

[Jan. 28, 2008, presentation and recording](#)

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# Questions?

