



CHELAN COUNTY



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## 2008 Integrated Resource Plan

# **An Introduction to Integrated Resource Planning**

January 28, 2008

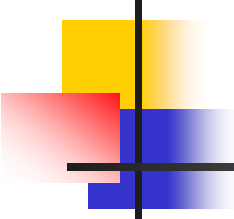
# Overview




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- What is an Integrated Resource Plan?
- Why are we doing an IRP?
- RCW 19.280: Electric Utility Resource Plans
- The IRP Planning Process
- Topics to be Addressed
- What an IRP is not
- Board and Public Process Schedule

# What is an Integrated Resource Plan?

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- Process utilities 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, including
    - Types
    - Amounts
    - Timing

# 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

# Other Benefits of IRP



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- Helps assess how different portfolio strategies manage risk exposures
  - Loads
  - Market prices
  - Resource mix (primarily hydro variability)
- Helps identify robust strategies  
(by avoiding strategies that depend upon specific events to make a strategy succeed)

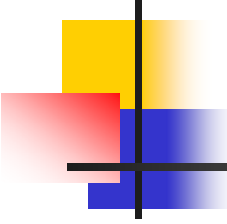
# One Big Why



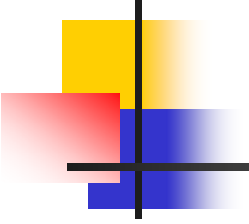
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- Because we are required under RCW 19.280:  
Electric Utility Resource Plans

# RCW 19.280 Overview

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- Analysis describing the mix of generating resources and conservation and efficiency resources that will meet current and projected needs at the **lowest reasonable cost** to the utility and its ratepayers
  - Applies to Washington State utilities with more than 25,000 retail customers
  - September 1, 2008 deadline for report to CTED
    - Progress report every 2 years
    - Updated every 4 years

# RCW 19.280 Overview

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- **Lowest reasonable cost** is determined through an assessment which must at a minimum consider
    - Resource cost
    - Market-volatility risks
    - Demand-side resource uncertainties
    - Resource dispatchability
    - Resource effect on system operation
    - Risks imposed on the utility and ratepayers
    - Public policy implemented by state or federal government
    - Cost of risk associated with environmental emissions (CO<sub>2</sub>)

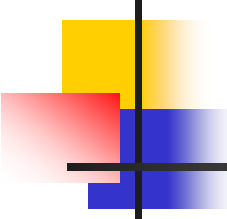
# RCW 19.280 Requirements



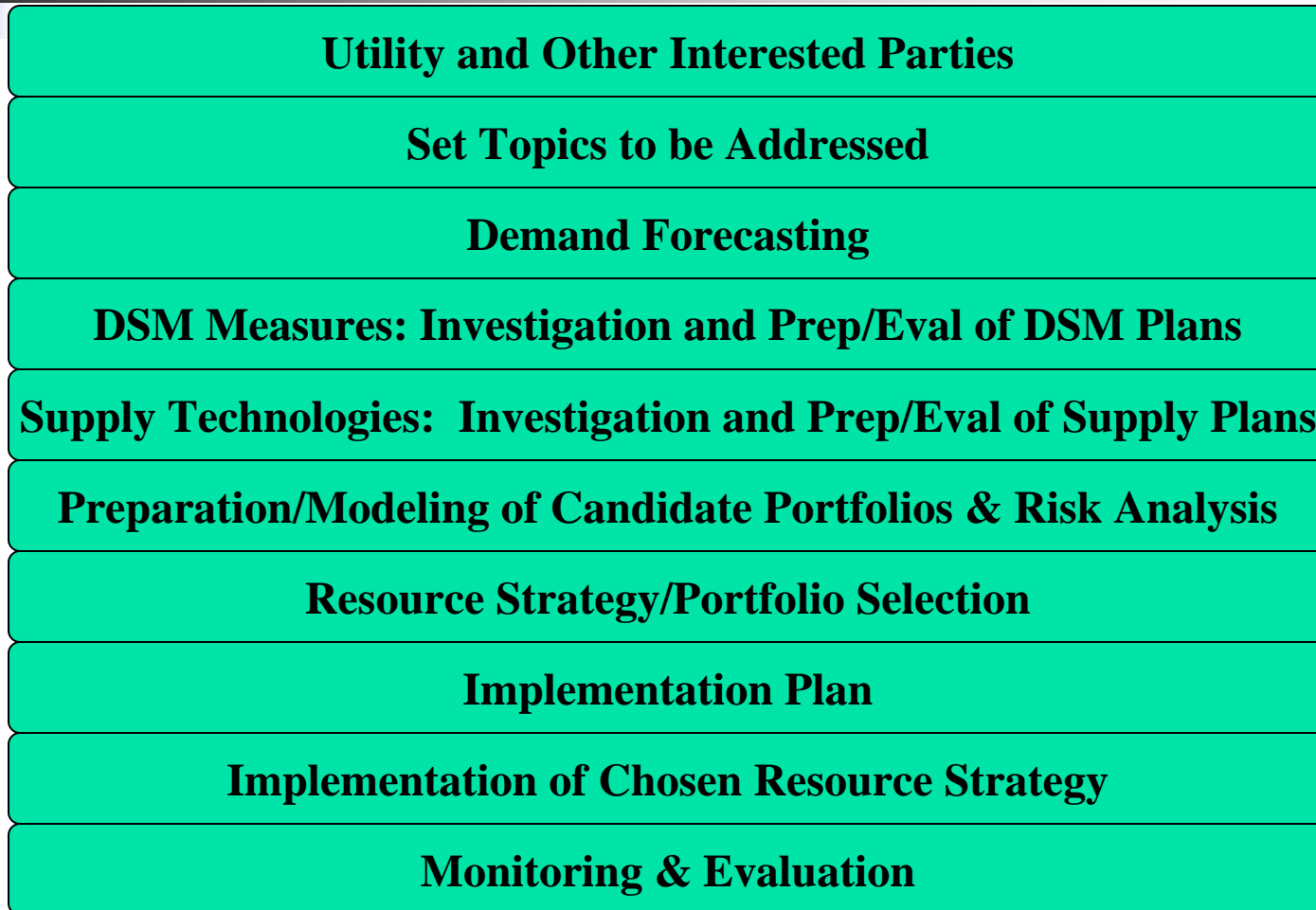
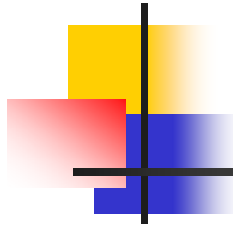
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- Range of load forecasts for at least ten years which takes into account econometric data and customer usage
- Assessment of commercially available conservation and efficiency resources
- Assessment of commercially available utility scale renewable and nonrenewable generating technologies

# RCW 19.280 Requirements

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- Comparative evaluation of renewable and nonrenewable generation resources, including transmission and distribution delivery costs, and conservation and efficiency resources using **lowest reasonable cost** as a criterion
  - Integration of demand forecasts and resource evaluations into a long-range assessment describing the mix of supply side 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
  - Short-term plan identifying specific actions to be taken by the utility consistent with the long-range IRP

# How: The IRP Planning Process



# Topics to be Addressed



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- Market prices for wholesale power – effects of changes in energy policies and market structures (presentation by Charles Black)
- Energy Independence Act (RCW 19.285) – impacts of new requirements for conservation and renewable resources (RPS)
- Expiring long-term power sales contracts – additional power will be available to serve future load growth

# Long-Term Power Sales Contracts: Recommended Approach for 2008 IRP



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- Will not reach definitive conclusions about strategies for new long-term contracts
  - Timing premature
  - Commercially sensitive -Do not want to compromise District's negotiating position
- In analysis of candidate resource portfolios:
  - Use one set of generic assumptions about **quantity** of power to be sold under long-term contracts
  - **Do not** include any assumptions about **pricing** or **revenues** for new long-term contracts
- Develop capability to use the model for post-IRP analysis of power sales contracting strategies

# What an IRP is **NOT**:

## Parting Thoughts



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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

# Board and Public Process - 2008 (Tentative Schedule)



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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

## **April 28- Study Session**

Post First Round and Pre Second Round of Portfolio Analysis Update

## **July 7 – Study Session**

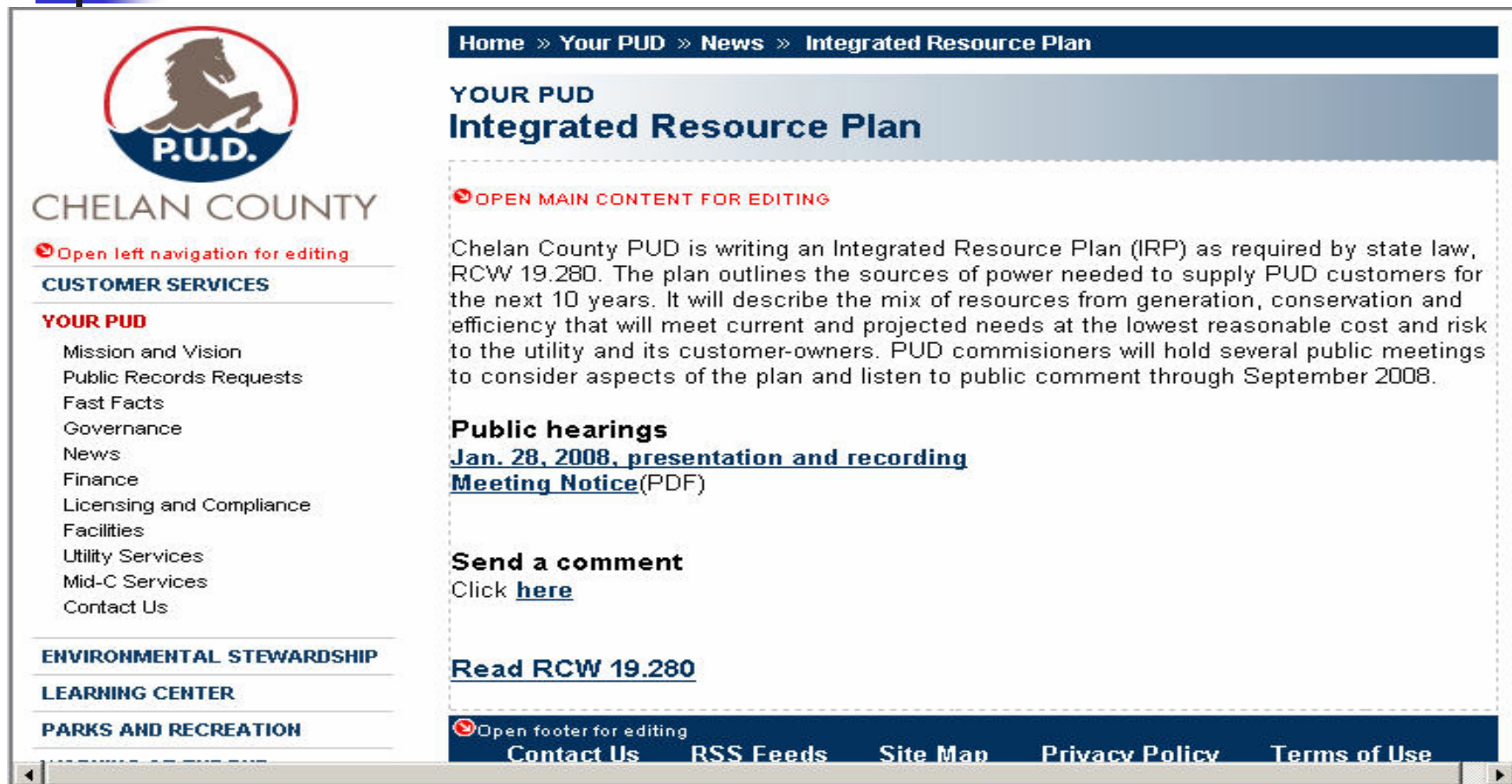
Post Analysis and Final Draft IRP

## **July 14 – Business Meeting**

Final Draft IRP for Board Approval  
(Resolution to be presented)

# Chelan PUD IRP Website

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



The screenshot shows a web browser window displaying the Chelan PUD IRP website. The page has a dark blue header with navigation links: Home » Your PUD » News » Integrated Resource Plan. Below the header is a light blue section titled 'YOUR PUD Integrated Resource Plan'. A red warning icon and text 'OPEN MAIN CONTENT FOR EDITING' are visible. The main content area contains a paragraph about the IRP, a section for 'Public hearings' with a link to a meeting notice PDF, and a 'Send a comment' section with a 'here' link. A 'Read RCW 19.280' link is also present. The left sidebar features the Chelan PUD logo and a list of navigation links under categories: CUSTOMER SERVICES, YOUR PUD, ENVIRONMENTAL STEWARDSHIP, LEARNING CENTER, and PARKS AND RECREATION. A red warning icon and text 'Open footer for editing' are visible above the footer, which contains links for Contact Us, RSS Feeds, Site Map, Privacy Policy, and Terms of Use.

**Home » Your PUD » News » Integrated Resource Plan**

**YOUR PUD**  
**Integrated Resource Plan**

**OPEN MAIN CONTENT FOR EDITING**

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 for the next 10 years. 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 through September 2008.

**Public hearings**  
**[Jan. 28, 2008, presentation and recording Meeting Notice](#)**(PDF)

**Send a comment**  
Click [here](#)

**[Read RCW 19.280](#)**

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