

*Mission Statement:*

*The UTC protects consumers by ensuring that utility and transportation services are fairly priced, available, reliable, and safe.*



# Washington Utilities and Transportation Commission

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## Issues facing the WUTC

Prepared for: The Kyrgyz Republic SEA

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# Presentation Order



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# Washington is a Hydroelectric Region



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- Region includes the Columbia River system that crosses four states and Canada.
  - High cost to disturbing the flow of this water system - ----fisheries, farming, recreation and municipal water supply.
  - System became run-of-river, without much storage.
  - Dispatch system for water management and daily peak load-shaving, not hourly marginal cost.

# Weather Issues

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- Rain and snowfall vary - output of the system can vary greatly. Shortfalls covered by purchases from thermal plants.
  - Causes large changes in the prices or costs which consumers face year-to-year.
  - Changes can bring real economic disruption, consumer irritation, and political consequences for decision-making.

# Fuel Prices Driving Issues at WUTC

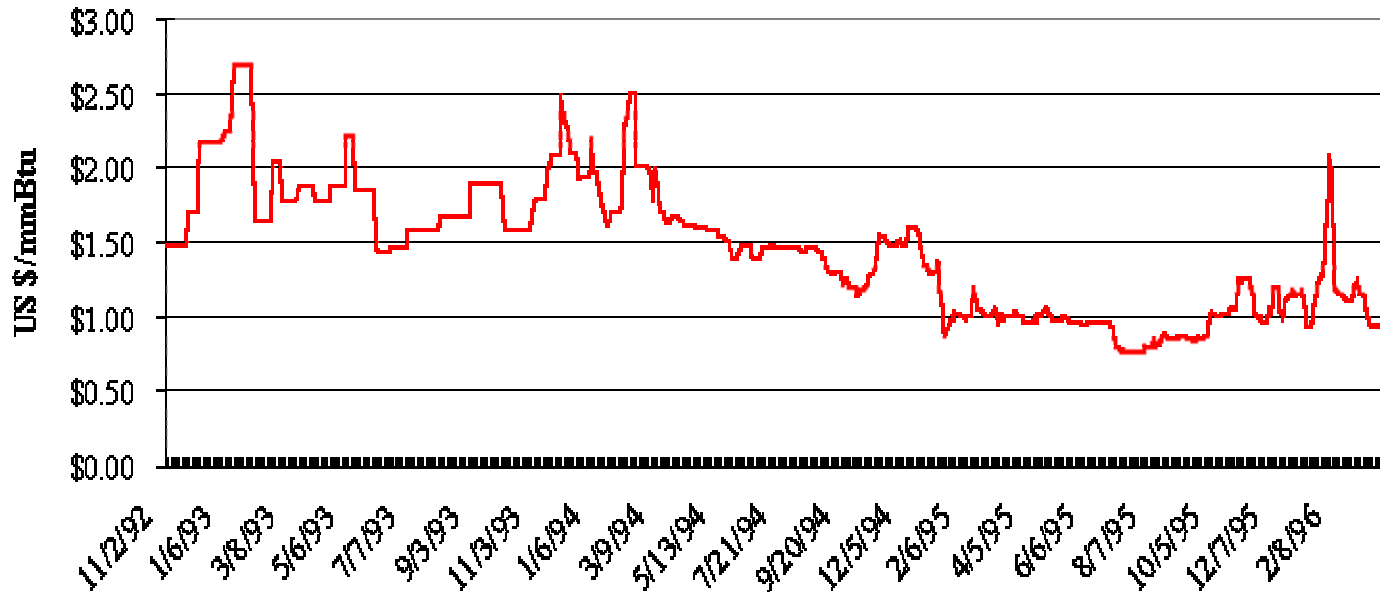


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- Gas is mined in Canada, the Rocky Mountains, the Gulf Coast and other parts of the USA.
  - Pipelines deliver to other states.
  - Washington buys in the national market.
  - Heating use causes the seasonal price pattern underlying the commodity price of gas.
  - Month-to-Month and Day-to-Day gas price variations cause variations in average costs.

# Fuel Prices Driving Issues at WUTC



**Gas Daily Sumas Index**

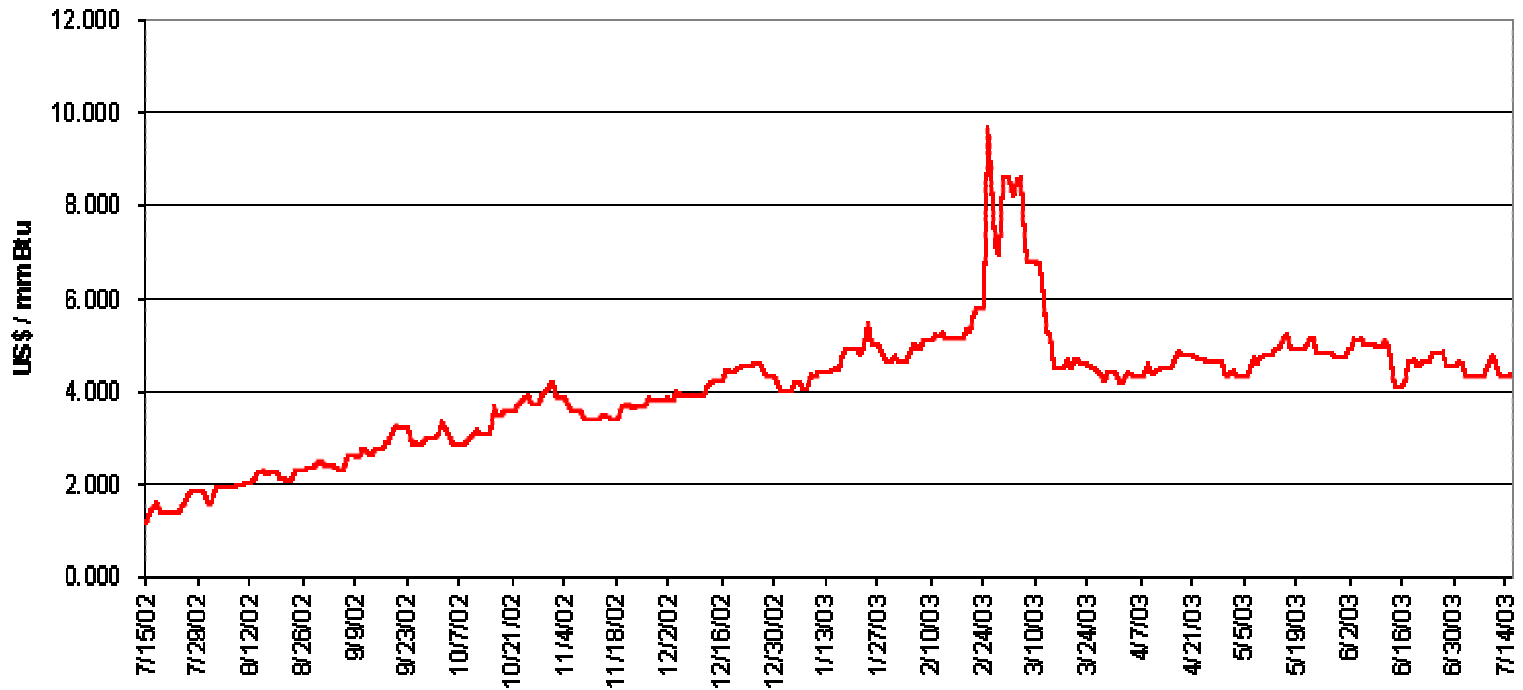


**Natural Gas prices declined after FERC deregulation**

# Fuel Prices Driving Issues at WUTC



Sumas Gas Daily Prices 7-2 to 7-03



# Fuel Impact on Rates

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- Dual goals of “price signal” and rate stability.
  - Utility is a buffer between consumer and market sources.
  - For the electric company, this has been tried with Power Cost Adjustment devices.
  - For gas utilities, the Purchased Gas Adjustment is used.

# Bonneville Power Administration (Bonneville) Resource Benefit Sharing

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- Federal organization Bonneville uses hydro natural resources with local environmental impact.
- Physical power sold to public power companies, not regulated utilities.
- Equity for customers of regulated utilities comes from cash transfer from Bonneville to regulated utilities to reduce power costs.
- Socialized public system shares with regulated monopoly system.

# BPA Residential & Farm Energy Exchange Benefit Example

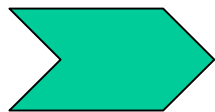
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## Puget Sound Energy Residential & Farm Service Rate Schedule 8

All energy @ 6.621 cents / kWh

Exchange Credit @ 1.74 cents / kWh



26.28 % discount to bill

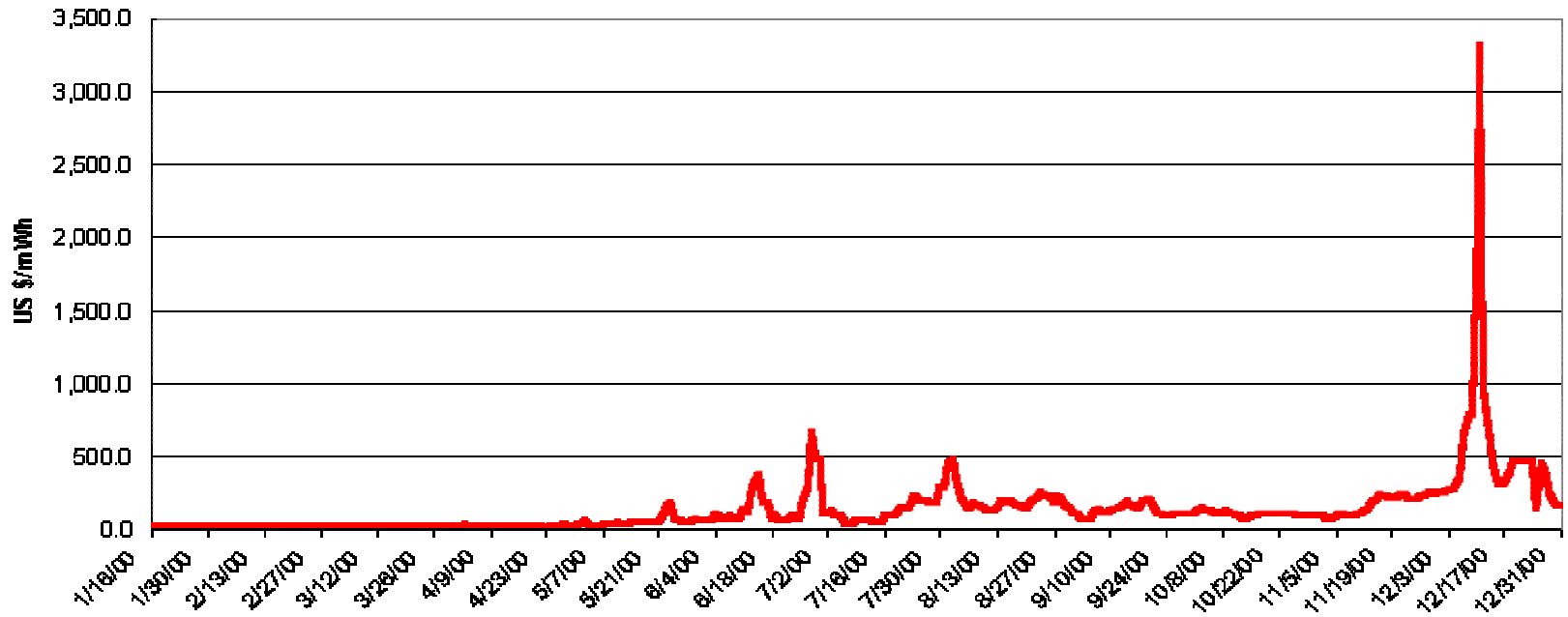
# Western Power Disturbance 2000 to 2001

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- May 2000 to May 2001 energy market disturbance.
- California Restructuring harmed western market.
- Consensus on causes:
  - Capacity shortfall
  - Poor day-ahead market design
  - No alternatives to the daily market
  - Poor hydro conditions.
- Dishonest marketing and bidding made severe problem worse. Some government lassitude too.

# Dow Jones Index: Mid-C



Market disruption in the year 2000 which damaged Washington

# January 2001 FERC response to Western Electricity Price Market: *sleeping on the job*

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- drawing by Stephen B Samerjan iii

# Western Power Markets



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- Year- long disruption brought several issues to the WUTC and continues to do so.
  - PSE Lawsuit, which ended in a settlement, created a small set of industrial customers with direct access to wholesale power markets.
  - Regulated utilities were damaged directly or indirectly by the extreme wholesale prices of this period and filed for significant rate cases.

# Renewed Interest in Resource Planning

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- One cause of the Western Power Market problem was inadequate capacity. Highlights value of vertical integration & resource planning.
- Resource Plans include study of the adequacy of capacity and energy.
- Mix of conservation and supply.
- Diversity of fuel and technology type to provide stable, low-cost, long-term power supply.

# 2001 Demand Response

- Customer Buyback Programs
  - ⇒ Total of 758,986 MWh curtailed
- Industrial Curtailment Programs
  - ⇒ Total of 12,928 MWh curtailed
- Irrigation Buyback Programs
  - ⇒ Total of 28,076 MWh curtailed
- Time-of-Use Program
- Conservation Programs
  - ⇒ Puget Sound Energy = 107,321 MWh saved
  - ⇒ Avista = 143,246 MWh saved



# Resource Planning

- Retreat from restructuring has placed renewed interest on **Integrated Resource Planning**.
- Resource Planning was codified in Washington in mid-1980s — then known as Least Cost Planning.
- *“Each electric utility has the responsibility to meet its load with a least cost mix of generating resources and improvements in the efficient use of electricity.” WAC 480-100-238(1)*

# WUTC's Resource Planning Rule

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- Company must file a plan every 2 years.
- Plan must include:
  - Forecasts of demand (20-year)
  - Assessment of demand-side potential
  - Assessment of generating technologies
  - Integration of demand forecast with cost-effective resource opportunities
  - Short-term (2-year) action plan
  - Progress report from last plan
- Public involvement in creation of plan is required.

# Stakeholders Involved in Resource Planning

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- WUTC Staff
- Public Counsel
- Industrial customer representatives
- Environmentalists
- Low-income advocates
- Washington Energy Policy Office
- Northwest Power Planning Council

# Current Issues in Planning

- De-emphasis of reliance on day-ahead market
- Ensuring resource adequacy for core customers
- Minimizing exposure to fuel price volatility (risk mitigation)
  - Hedging
  - Demand-side resources
  - Renewable resources
- Integration of demand-side resources with supply-side in models
- Recognizing externalities
- Hydro re-licensing

# Use of Resource Plans

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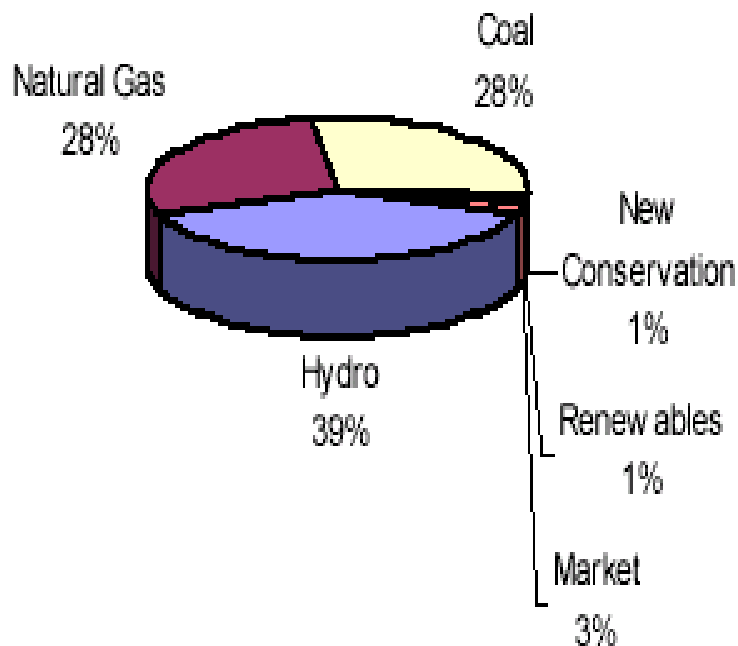
- Commission acknowledges plans—does not approve them.
- Plans provide strategic direction for long-term planning.
- Planning is a dynamic process.
- Plans identify key factors and analytical methods for making resource additions.
- Plans do not commit utilities to acquisition of specific resource types.

# Resource Bidding Rule

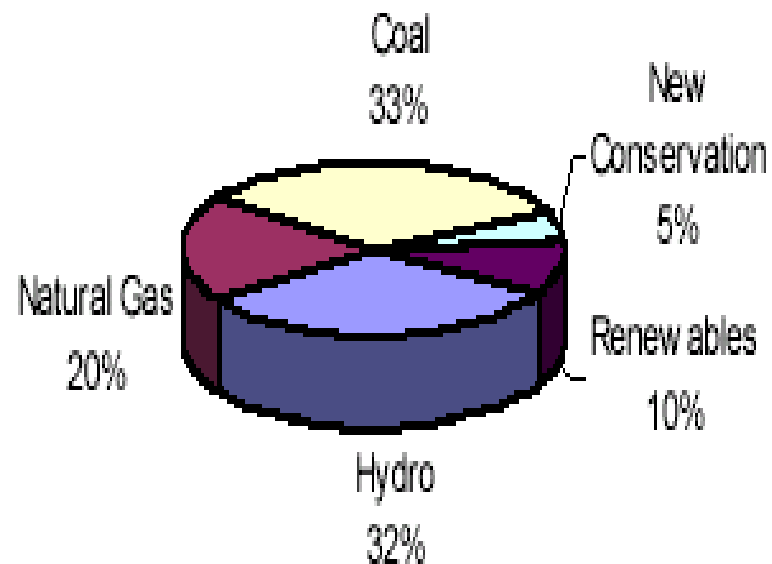
- Commission administers a Federal law for small power sellers and observes acquisition of resources.
- Filing of Resource Plan mandates filing Request For Proposals.
- Request For Proposals attracts bids using Resource Plan data.
- Bids evaluated on objective basis.
- Resources outside of bidding process considered.
- Company has no obligation to accept any bid and bidders have no claim to a contract.

# Puget Sound Energy Supply Mix

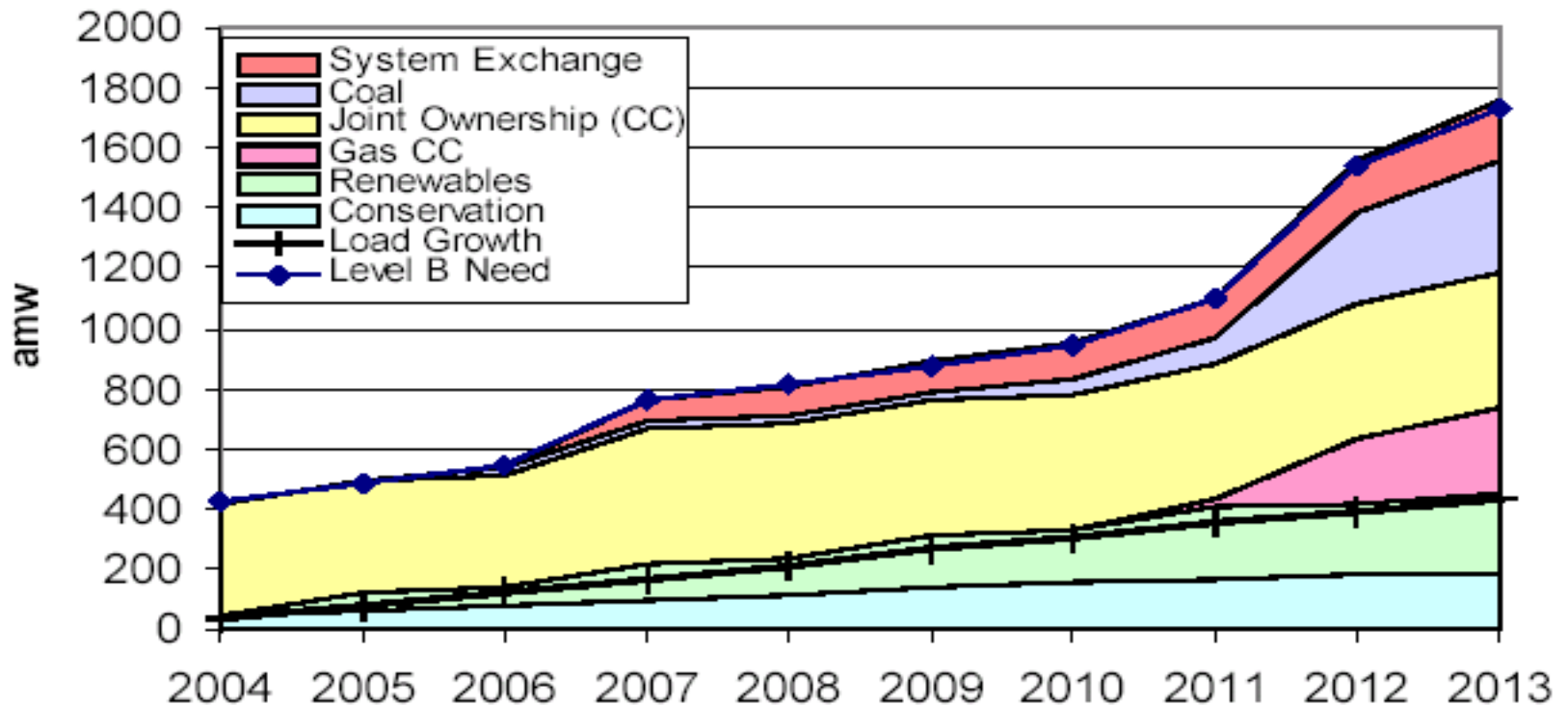
Estimated Annual Energy Resource Mix, 2003



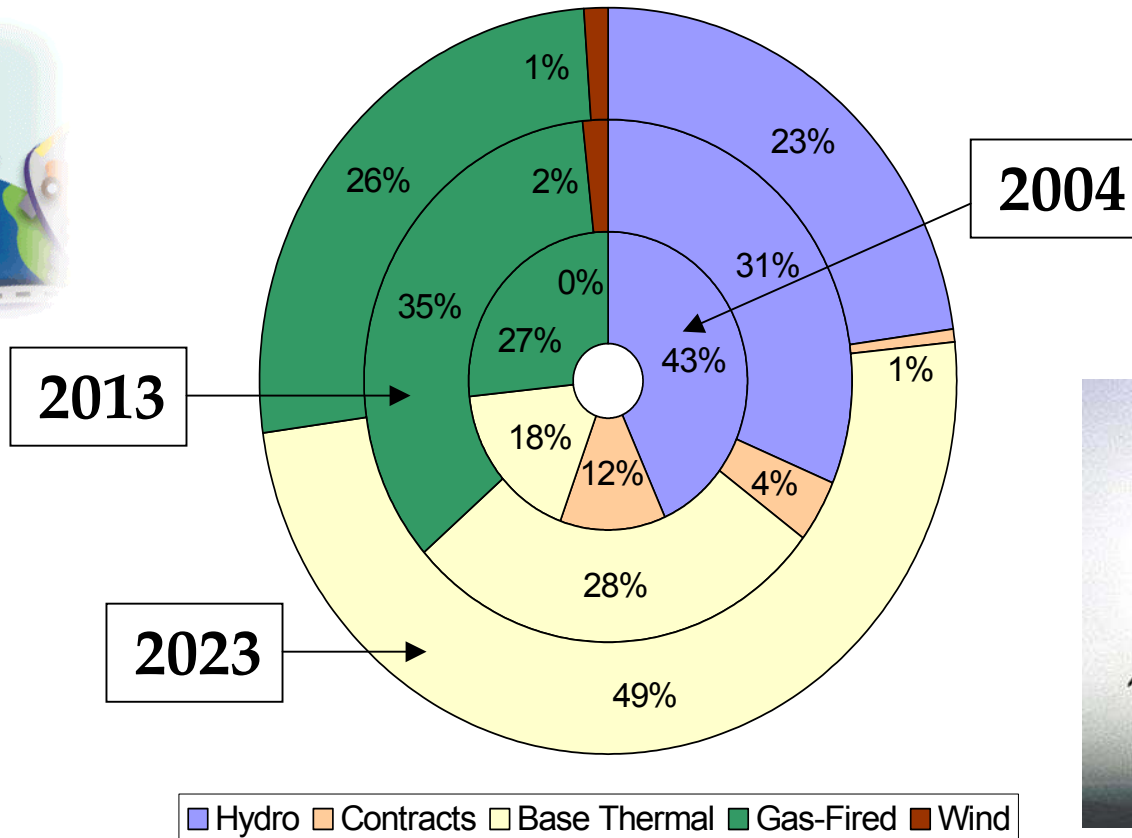
Estimated Annual Energy Resource Mix, 2013



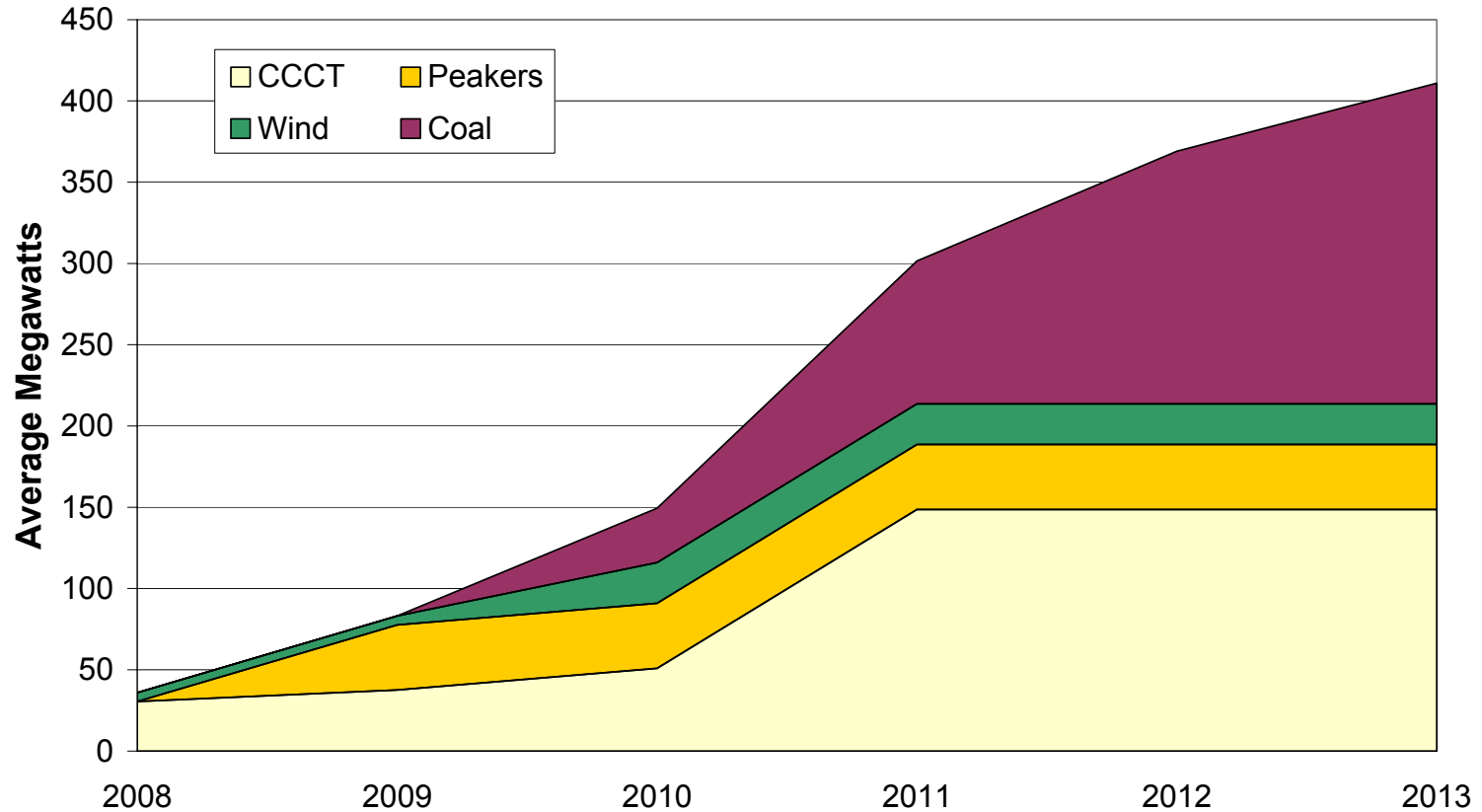
# Puget Sound Energy Preferred Resource Strategies



# Avista Supply Mix



# Avista Resource Strategy



# Current and Up-Coming Regulatory Proceedings

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- Commission currently reviewing resource planning rule
- Request For Proposals review and publication
- Rate case for resource acquisition
- New filings for demand-side programs
- Purchase Cost Adjustments
- Purchase Gas Adjustments