

---

# Hedging and Risk Management Strategies

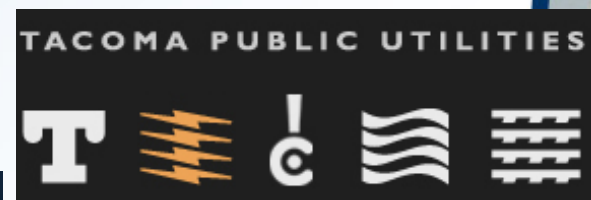
Northwest Power and Conservation Council  
Symposium on PNW Power Markets

July 8, 2013

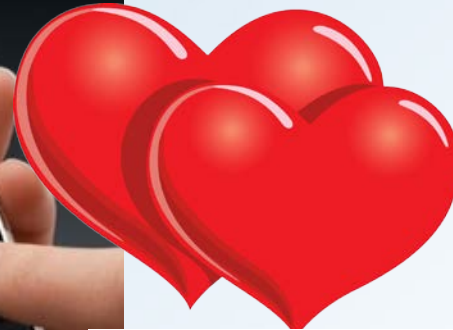


**Lands  
Energy**  
CONSULTING

# Who Are You?



# Random Trivia: The Seven-Minute Rule

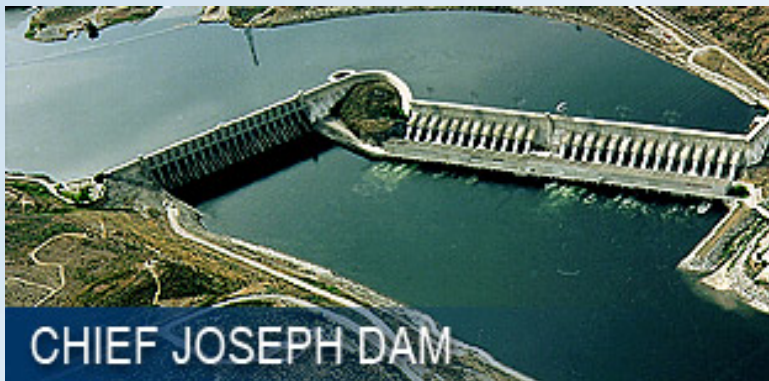


# The Promised Golden Age

---



Enron has created a new market to protect revenue against unfavorable weather



CHIEF JOSEPH DAM

# Golden Age Thwarted

---

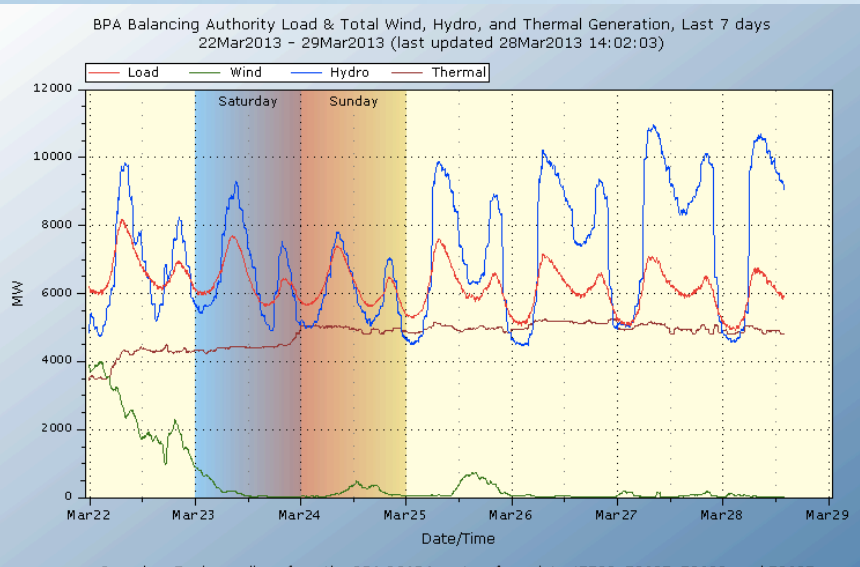


- Standard On-Peak and Off-Peak Products
- Standard Options – calls and puts
- Physical or Financially settled
- Not much else

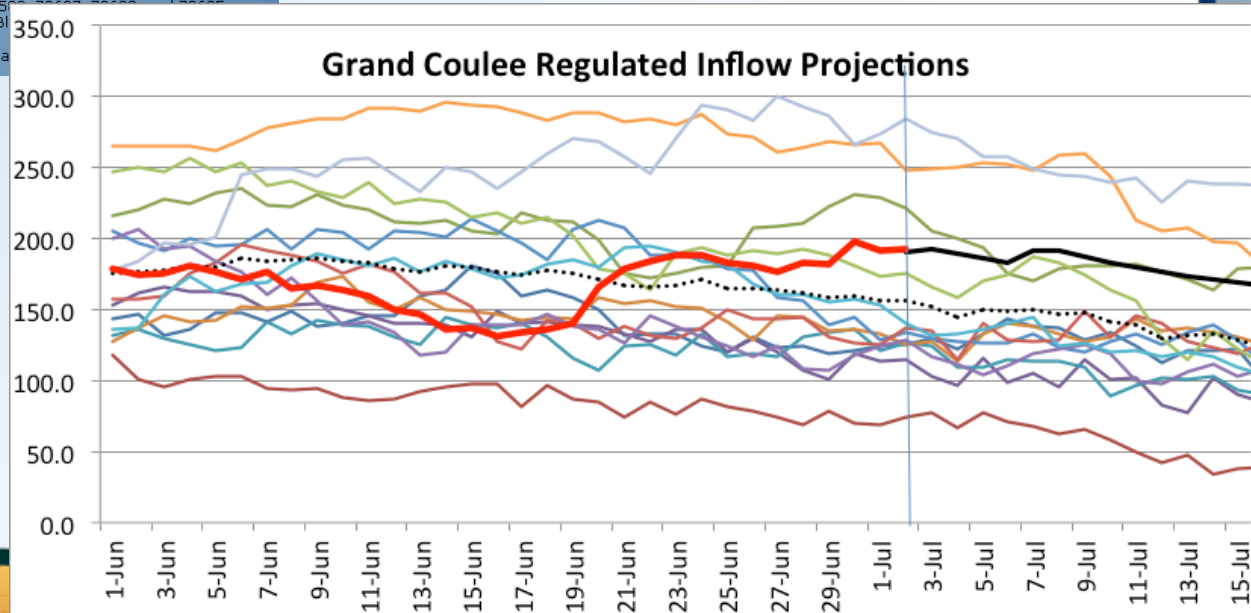


**Lands  
Energy**  
CONSULTING

# Something Old, Something New



- Hydro variability
- Wind
- Hedge Accounting
- Fish Operations
- Capacity Planning



# Ascendency of Slice Products

- Grant PUD
- Chelan PUD
- BPA
- Colville Tribes



## Factors to consider with Slice Contracts

- *Package risks*
  - *Water*
  - *Price*
- *Highly Structured*
- *Limited pool of buyers*
- *Ancillary capability*
- *Credit and counterparty risk*
- *Data requirements*



# Importance of Old Fashioned Planning

