Power Supply Options

- Market Fundamentals
- Rate and Supply Forecasts
- Recent and On-going Transactions
  - Arco
  - Georgia-Pacific
  - Wood Products "A"
  - Primary Metals "B"
  - Chemicals "C"
  - MagCorp
- Conclusions
West Coast Fundamentals

- The WSCC is the largest electric market in the world
- The current surplus -- 32,000 megawatts -- is greater than the loads in most developed nations
- The surplus "disaggregates" into uneven load/resource balance on a subregional level
- Transmission is a competitor to regulation and plant construction
## WSCC 3A Reported Load Resource Balance

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<th>MW</th>
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1995 Spot Prices

West Coast Spot Prices

- Sumas
- Mid-Columbia
- Central Rockies
- NW/N. Rockies
- COB/NOB
- N. California
- Midway
- S. California
- Mead
- Palo Verde
- Inland SW
- Four Corners
- Canada
Typical West Coast Prices

Offer 1 | Offer 2 | Offer 3 | Offer 4 | Offer 5
--------|--------|--------|--------|--------
0.00    | 10.00  | 20.00  | 30.00  |
Rate and Supply Forecasts

- We use the Energy Information Administration's regional forecasts as a base and then adjust for the impacts of changes in competition and load.
- EIA forecasts represent the "bad old world" of costly resource duplication and low availability rates.
- Overall, basic costs will stay stable over the next fifteen years, absent competition mandated write downs (mainly in California).
Seasonal Diversity

Northwest

Southwest

-20,000.00
-10,000.00
0.00
10,000.00
20,000.00
30,000.00


-10,000.00
0.00
10,000.00
20,000.00
30,000.00

WSCC Surplus

Year: 1995 to 2010

- Summer
- Winter

Values: -20,000.00, -10,000.00, 0.00, 10,000.00, 20,000.00, 30,000.00
Northwest Rates


0.00 1.00 2.00 3.00 4.00 5.00 6.00

Status Quo  Competitive

gears

Northwest Rates
The four industrial rates are:
- Status Quo -- currently established tariff rates
- Status Quo adjusted for competitive effects
- Competitive rates reflecting fuel and market alternatives
- Spot pricing rates
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**NW Industrial Rates**

- **Spot Plus**
- **Competitive**
- **Competitive**
- **Status Quo**
Forecasting Spot

- Spot prices are low and likely to go lower
- 1995 has seen the first "normal" hydrology in seven years
- Competitive driven availability rates will be high -- 95% instead of 84%
- New players are eliminating competitive bottlenecks like the B.C. Hydro/BPA standoff
Recent Northwest Case Studies

- Arco
- Georgia-Pacific
- Wood Products "A"
- Primary Metals "B"
- Chemicals "C"
- MagCorp "X"
• Arco is Puget's largest customer
• Situated on the Canadian border (Bellingham area)
• Proposed a BPA supplied shift to the Whatcom PUD
• BPA backs out under political pressure
• Final rates are 30 mills with a complex fuel exchange mechanism
• Arco's market work was rough at best
Georgia Pacific

- GP's fundamentals are excellent -- possible service by BPA, Puget, and Whatcom
- Extensive market work with highly aggressive offers in the 20 mill range from Northwest utilities and brokers
- Current proposed plan is to transfer sub to Whatcom and use existing Puget lines under sections 211/212 of the 1992 Energy Policy Act
- Expected rates in the mid to high 20s
Wood Products "A"

- Oregon based 50 megawatt load
- Extensive cogen offset negotiations based on market opportunities in older cogen units
- Take or pay components
- Utility dispatches older cogen units
- Rates in the high 20s -- including some loads in California
Daily Spot Versus Sumas Gas

1991-1995 Sumas Gas Versus PNW One Day Froeschedule

- PNW/Sumas
- PNW/Sport
Primary Metals "B"

- 120 MW primary metals load
- Some firm service -- approximately 50 megawatts
- Remaining service on a "spot plus" basis
- 1995 spot plus prices -- 17 mills delivered
- Full buy/sell rights on host system
Chemicals "C"

- 80 MW load
- Public power supply
- Interruptible contract allows displacement of existing BPA purchases
- Replacement supplies market based with index from supplying utility
MagCorp "X"

- North America's second largest magnesium smelter
- Pacific's second largest customer
- Successful "pass through interruptible" negotiations in 1987
- Pacific based the market pricing on internal computer models
- Strong evidence of a 10% surcharge from 1987 forward
Industrial rates are sharply turning downwards
Lower rates are provided to customers with leverage
All arrangements are special contracts
Preparation and fine print are the key to success
Utility special arrangements should be reviewed with extreme care
Target rates for 1995 -- 28 mills for IOUs, 29 mills for publics