Western States Power Supply

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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

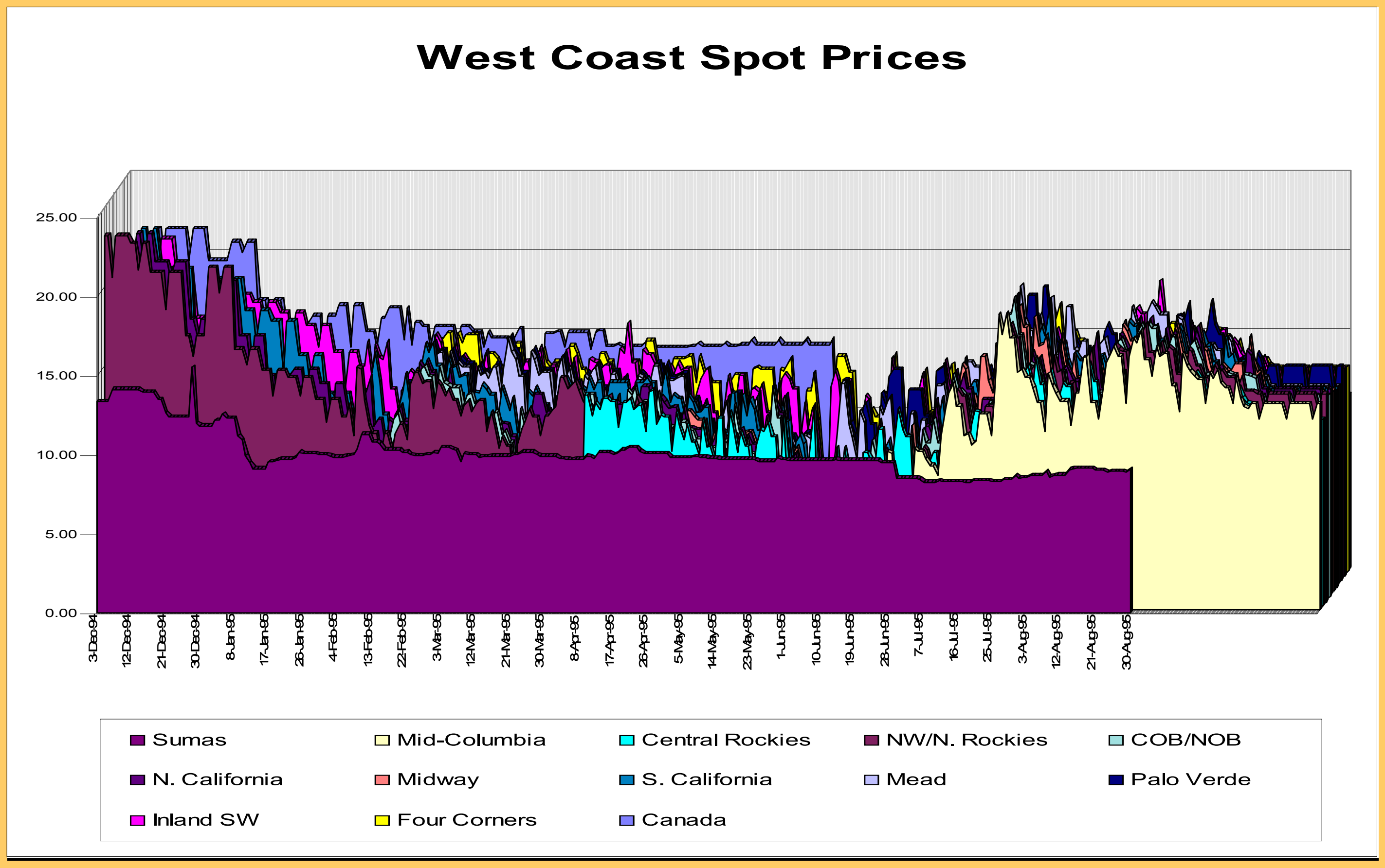
- The WSCC is the largest electric market in the world
- The current surplus -- 32,000 megawatts -- is greater than the loads in most developed nations
- The surplus "disaggregates" into uneven load/resource balance on a subregional level
- Transmission is a competitor to regulation and plant construction

WSCC Geography

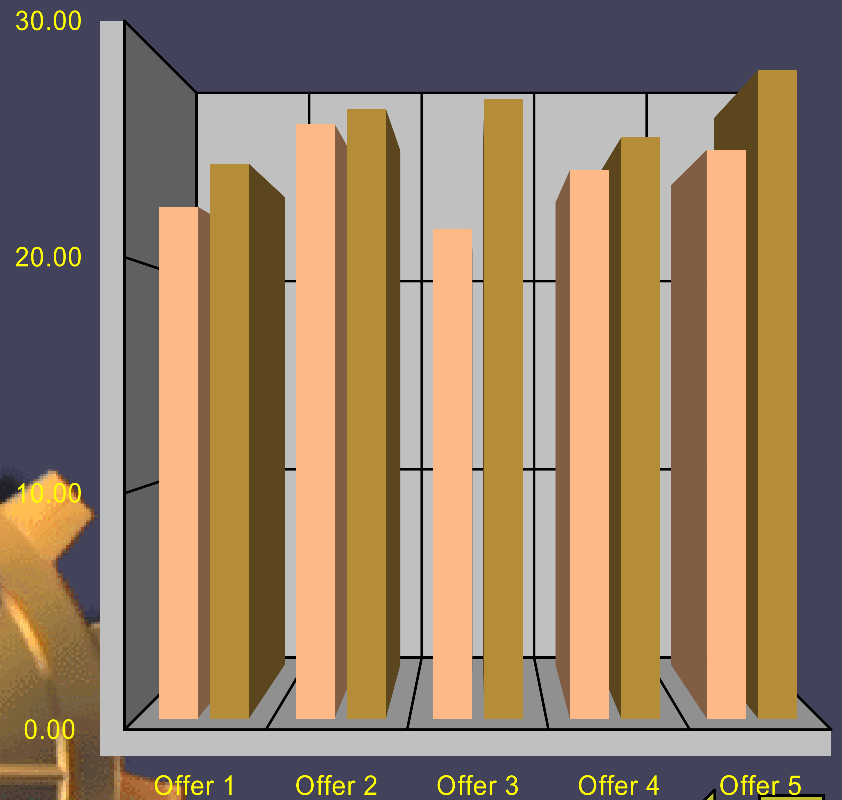
WSCC Bulk Power

WSCC 3A Reported Load Resource Balance				
MW	1994		1995	
	SUMMER	WINTER	SUMMER	WINTER
Internal Demand	113596	110452	116357	112922
Standby Demand	0	0	0	0
Total Internal	113596	110452	116357	112922
Direct Control	1795	4	1804	4
Interruptible	2239	2337	2645	2735
Net Internal	109562	108111	111908	110183
Total Capacity	138200	141097	139542	142252
Inoperable	104	855	104	855
Net Operable	138096	140242	139438	141397
NUGs	9865	9912	10488	10340
Scheduled Imports	256	236	366	346
Full Responsibility Imports	256	236	366	346
Scheduled Exports	205	172	205	172
Full Responsibility Exports	205	172	205	172
Adjustment	0	0	0	0
Net Capacity	148012	150218	150087	151911
Planned Outage	6850	7700	5927	7131
Net Capacity	141162	142518	144160	144780
Balance: Net Capacity Less Net Internal	31600	34407	32252	34597

1995 Spot Prices



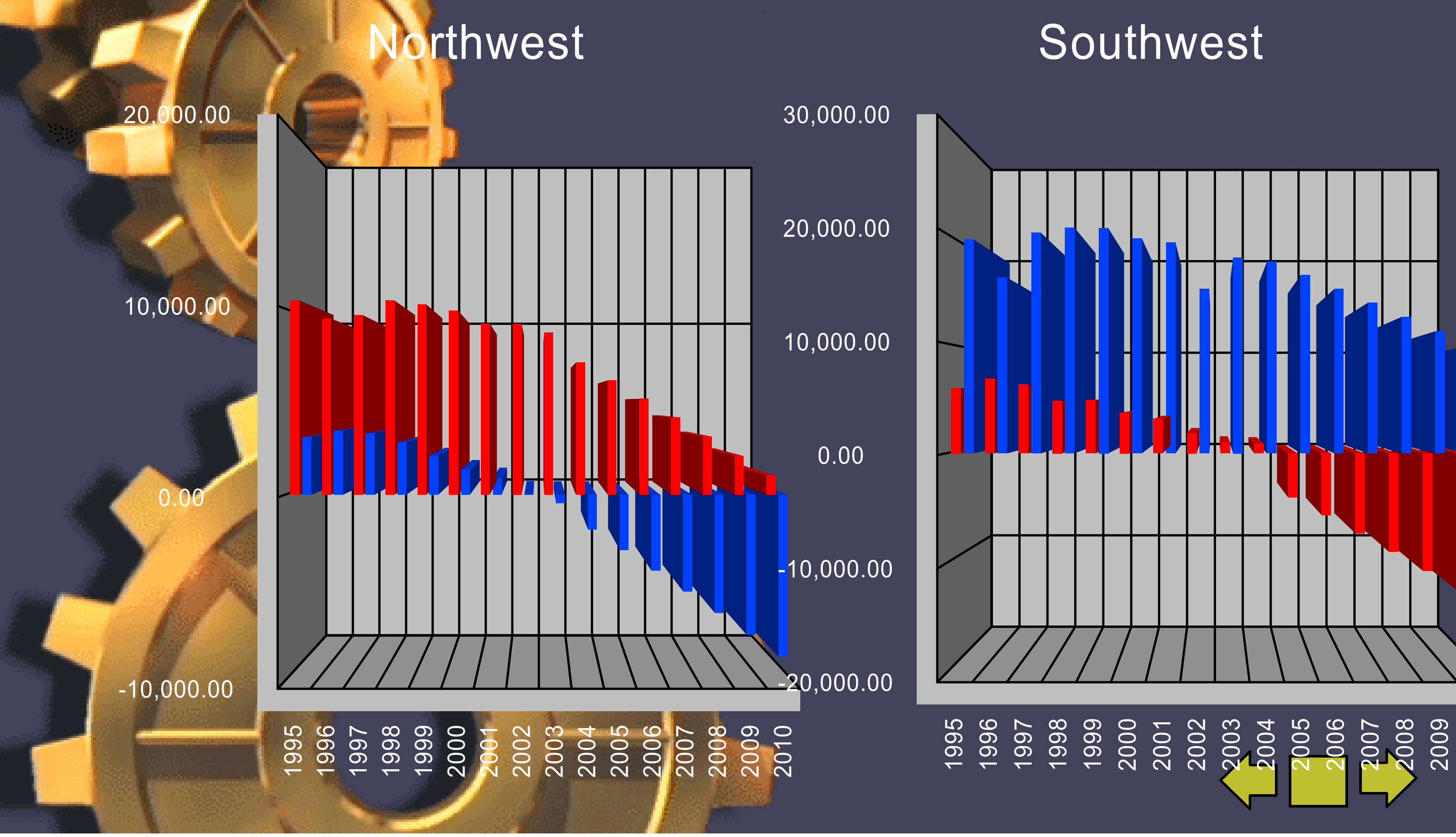
Typical West Coast Prices



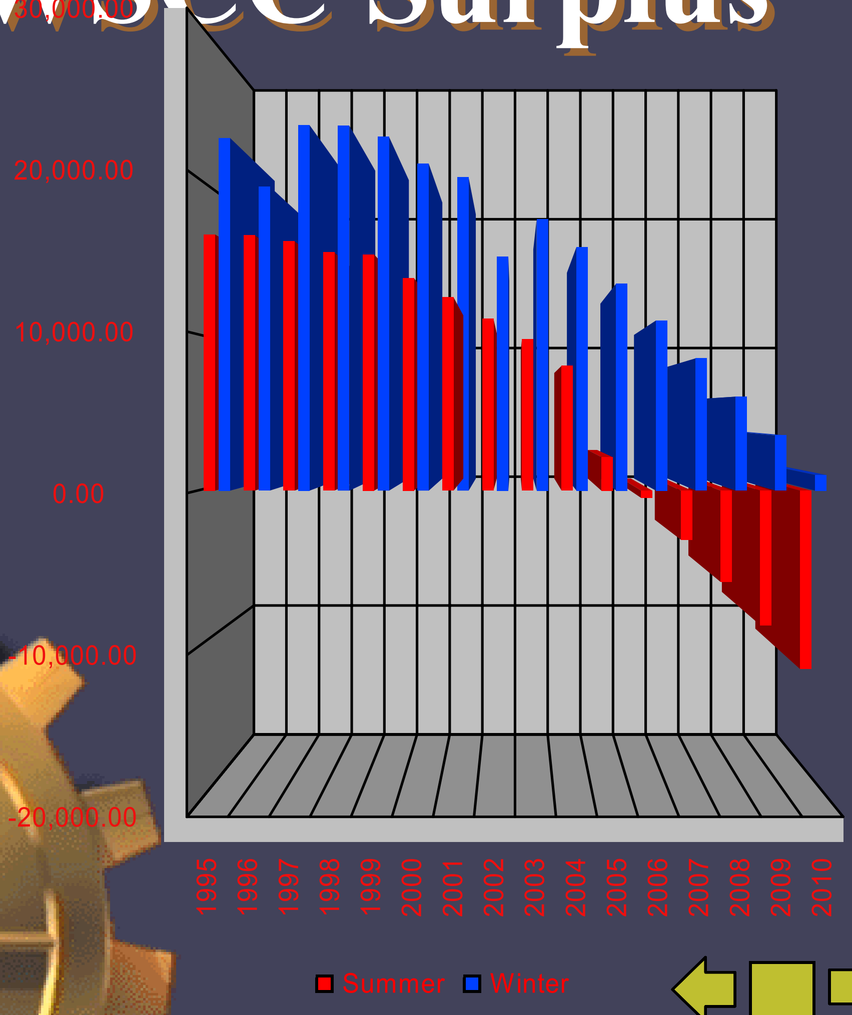
Rate and Supply Forecasts

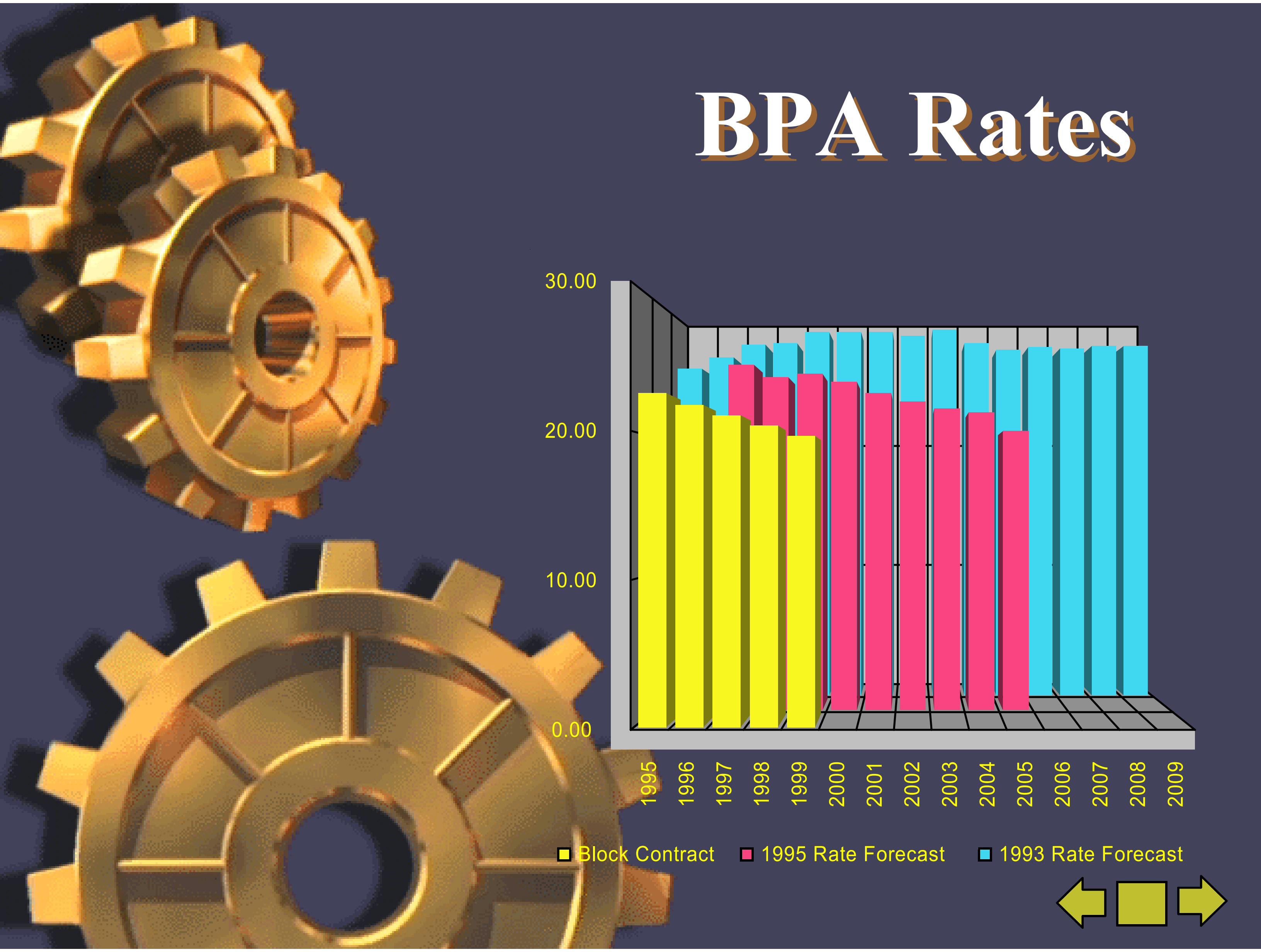
- We use the Energy Information Administration's regional forecasts as a base and then adjust for the impacts of changes in competition and load
- EIA forecasts represent the "bad old world" of costly resource duplication and low availability rates
- Overall, basic costs will stay stable over the next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

Seasonal Diversity



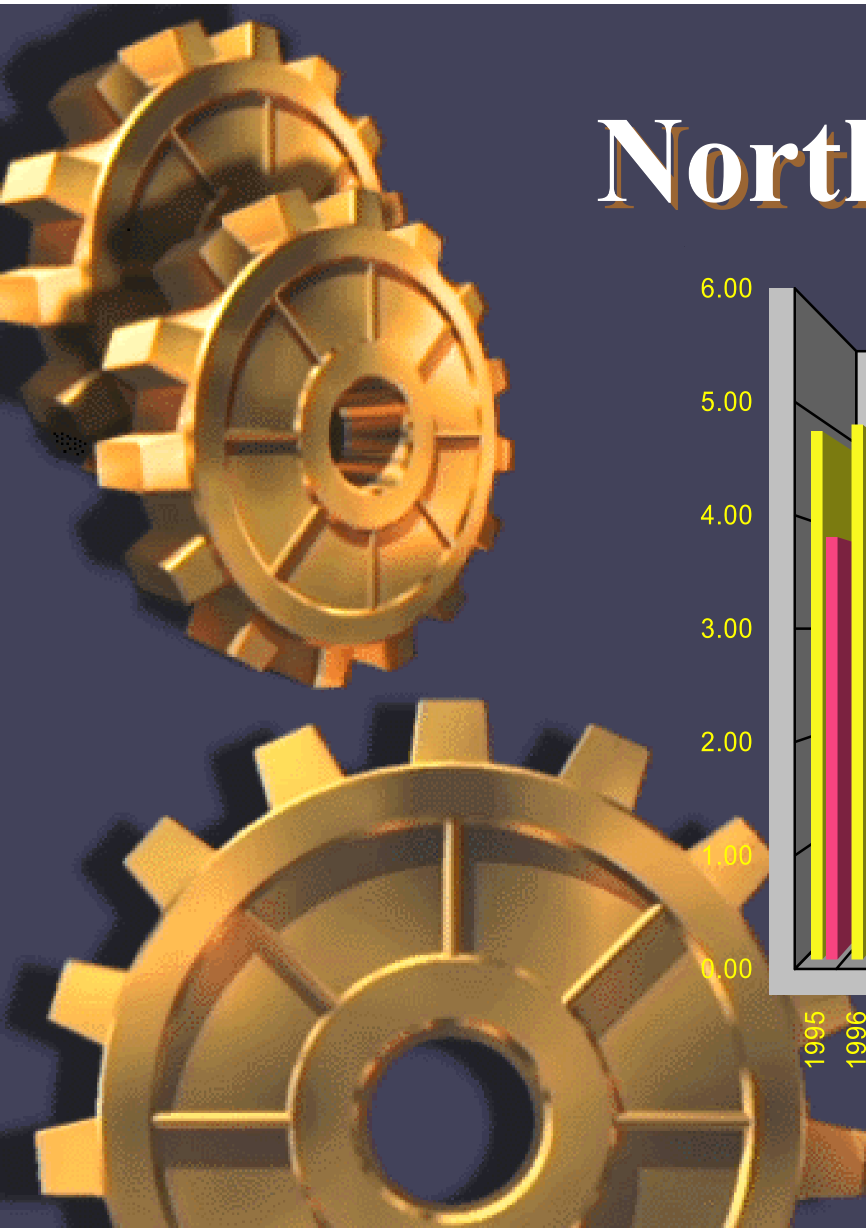
WSCC Surplus



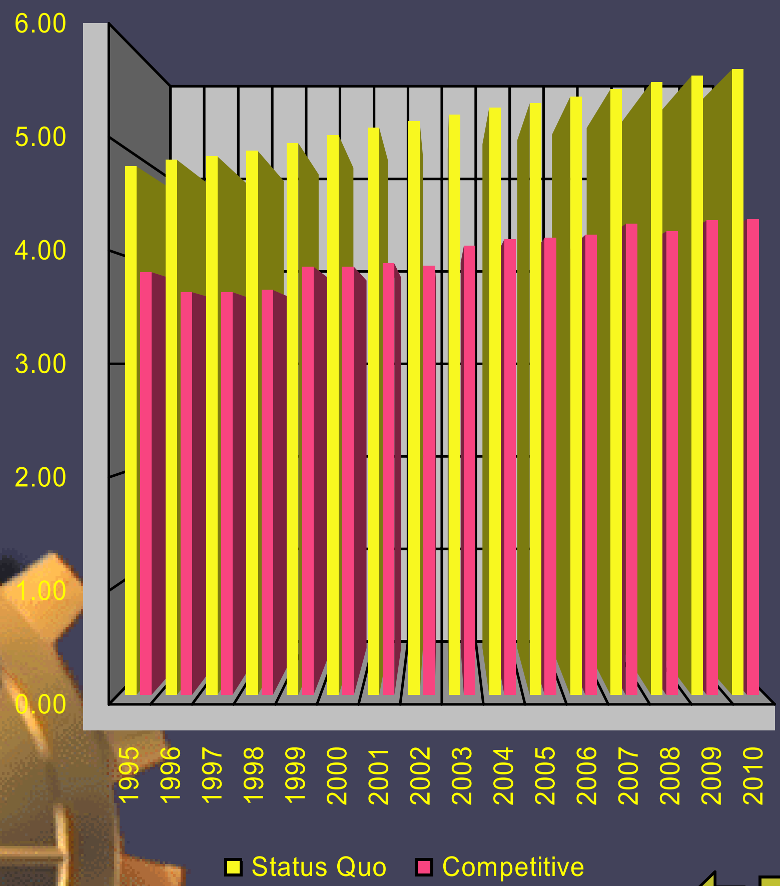


BPA Rates
30.00
20.00
10.00
0.00
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Block Contract
1995 Rate Forecast
1993 Rate Forecast

BPA Rate Forecast



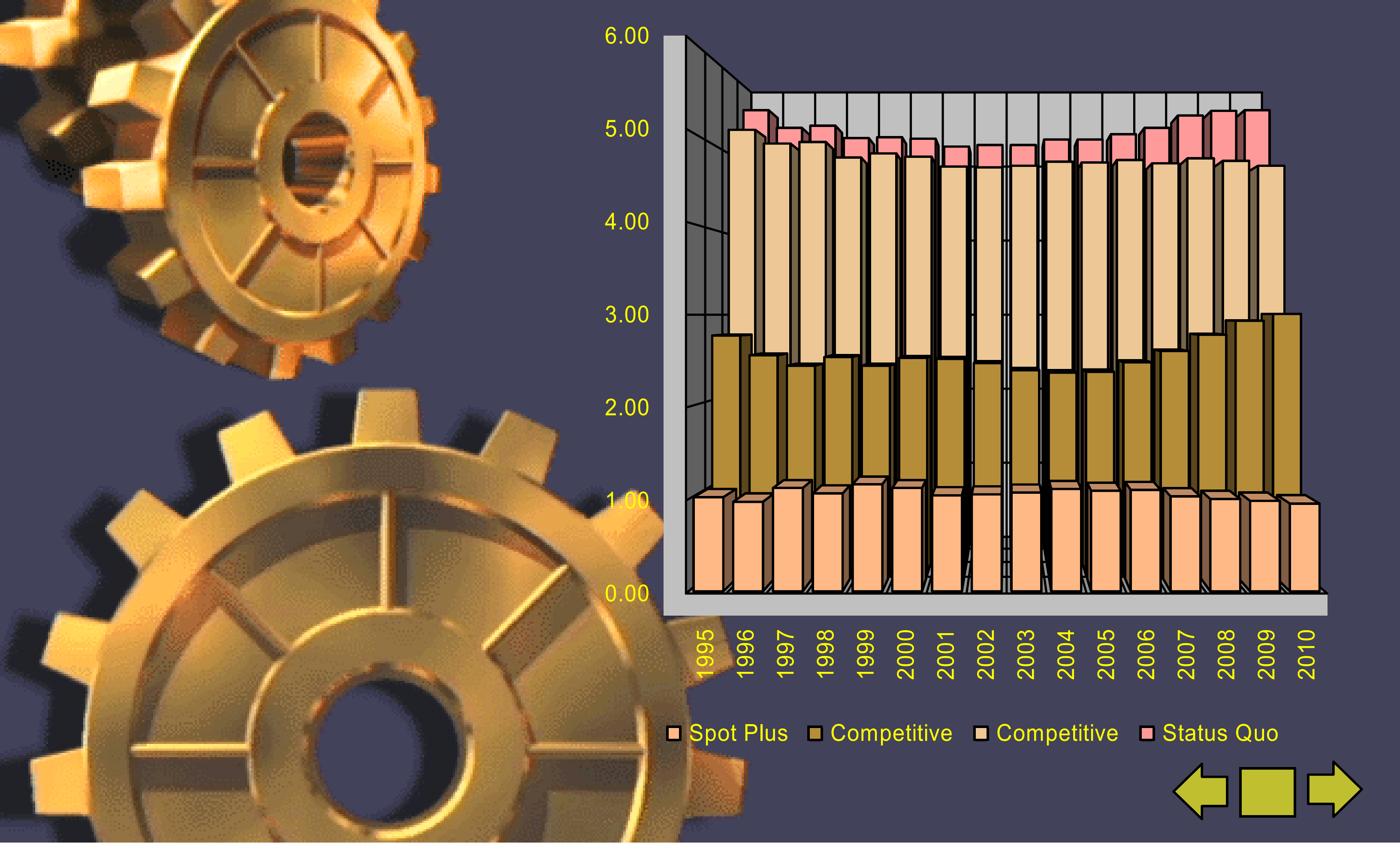
Northwest Rates



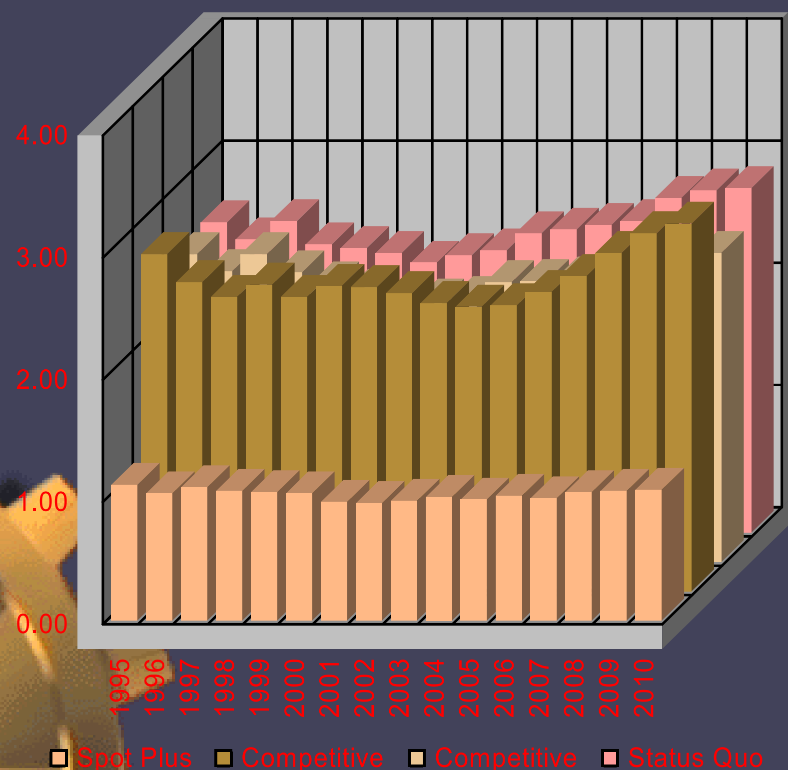
Four Industrial Rates

- 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

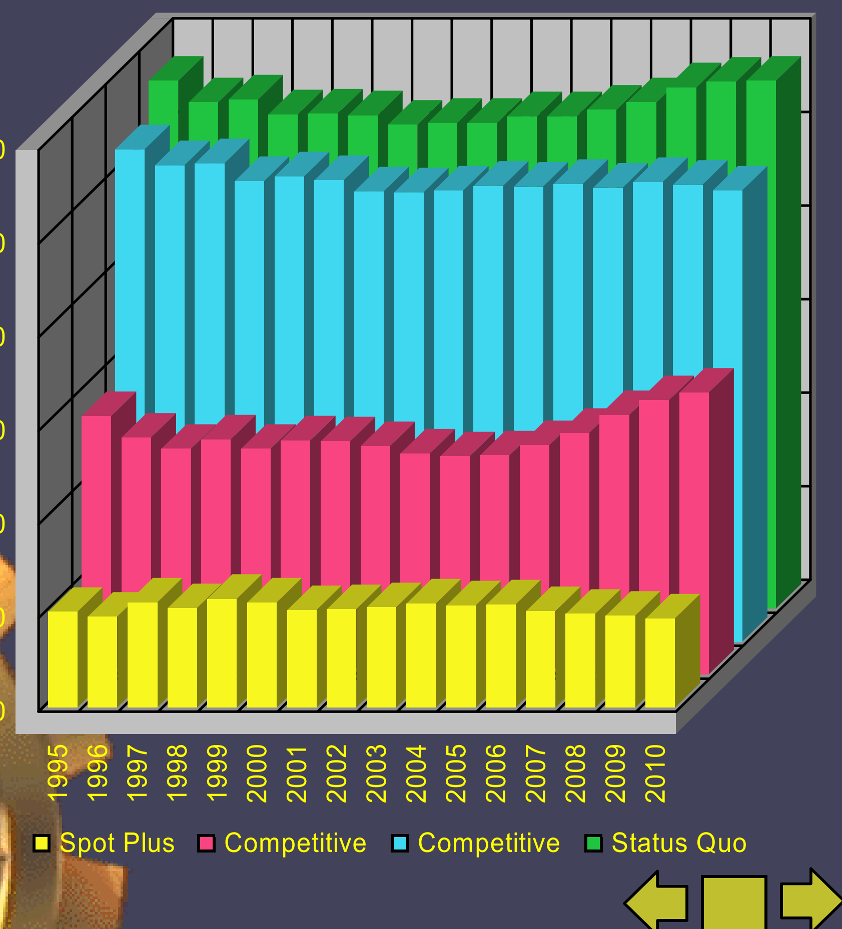
WSCC Industrial



NW Industrial Rates



California Rates



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

Spot Prices By Month

Recent Northwest Case Studies

- Arco
- Georgia-Pacific
- Wood Products "A"
- Primary Metals "B"
- Chemicals "C"
- MagCorp "X"

ARCO

- 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

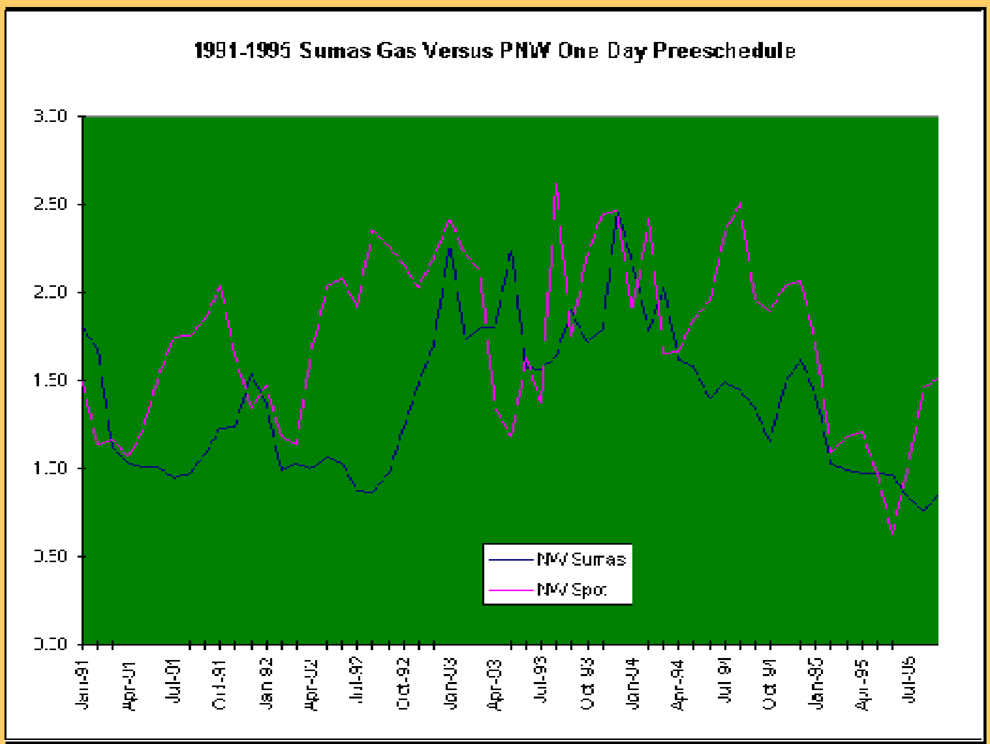
Georgia Pacific

- 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



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

Conclusions

- 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, 23 mills for publics