Fall-Winter Energy Shortage Presentation
State Agency Liaison Meeting
Washington State EOC
Wednesday, November 28, 2001

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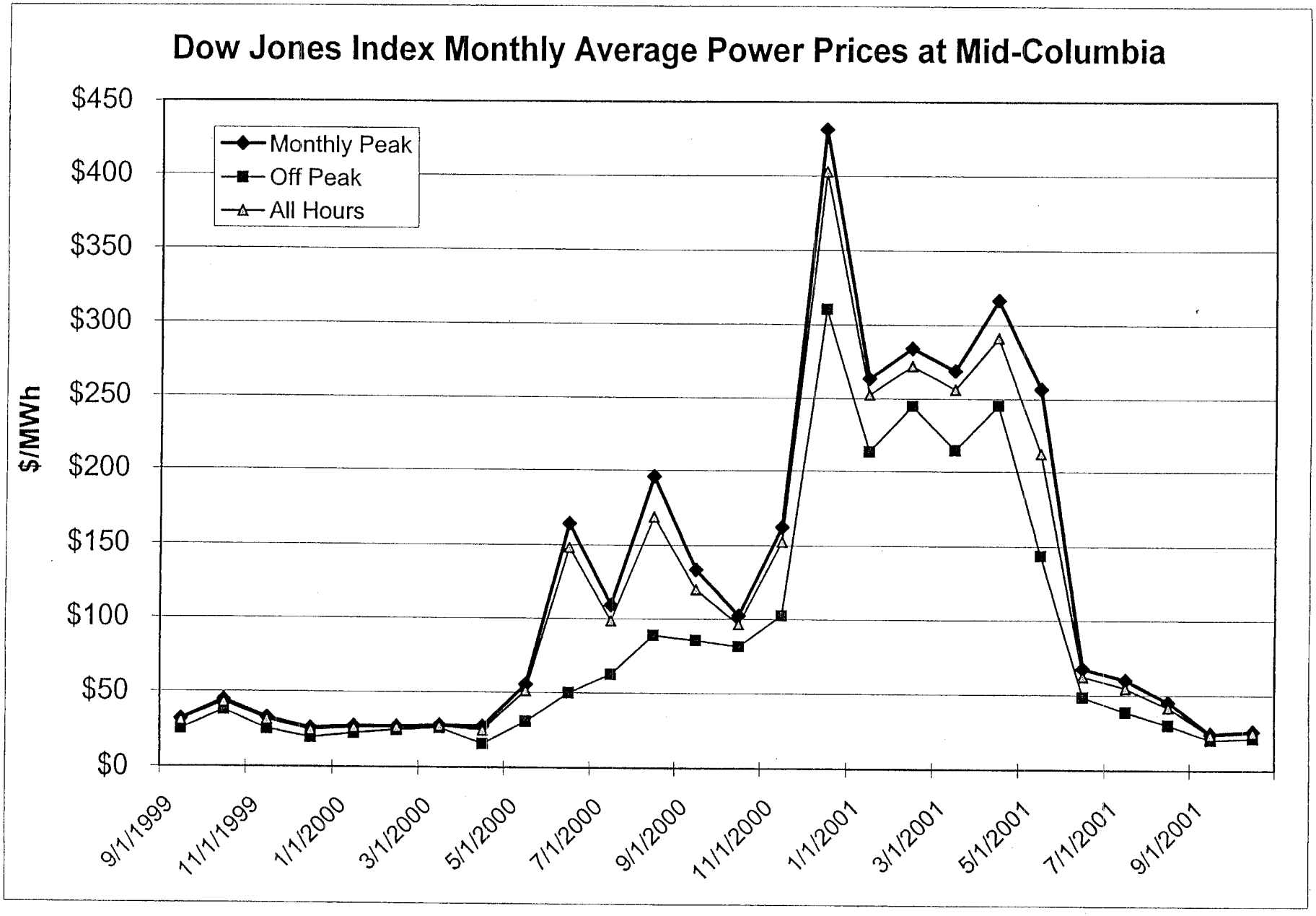
Office of Trade and Economic Development, Energy Division


Dow Jones Index Monthly Average Power Prices at Mid-Columbia
$/MWh
$450
$400
$350
$300
$250
$200
$150
$100
$50
$0
Monthly Peak
Off Peak
All Hours
9/1/1999
11/1/1999
1/1/2000
3/1/2000
5/1/2000
7/1/2000
9/1/2000
11/1/2000
1/1/2001
3/1/2001
5/1/2001
7/1/2001
9/1/2001

Western Electricity Crisis Event Matrix

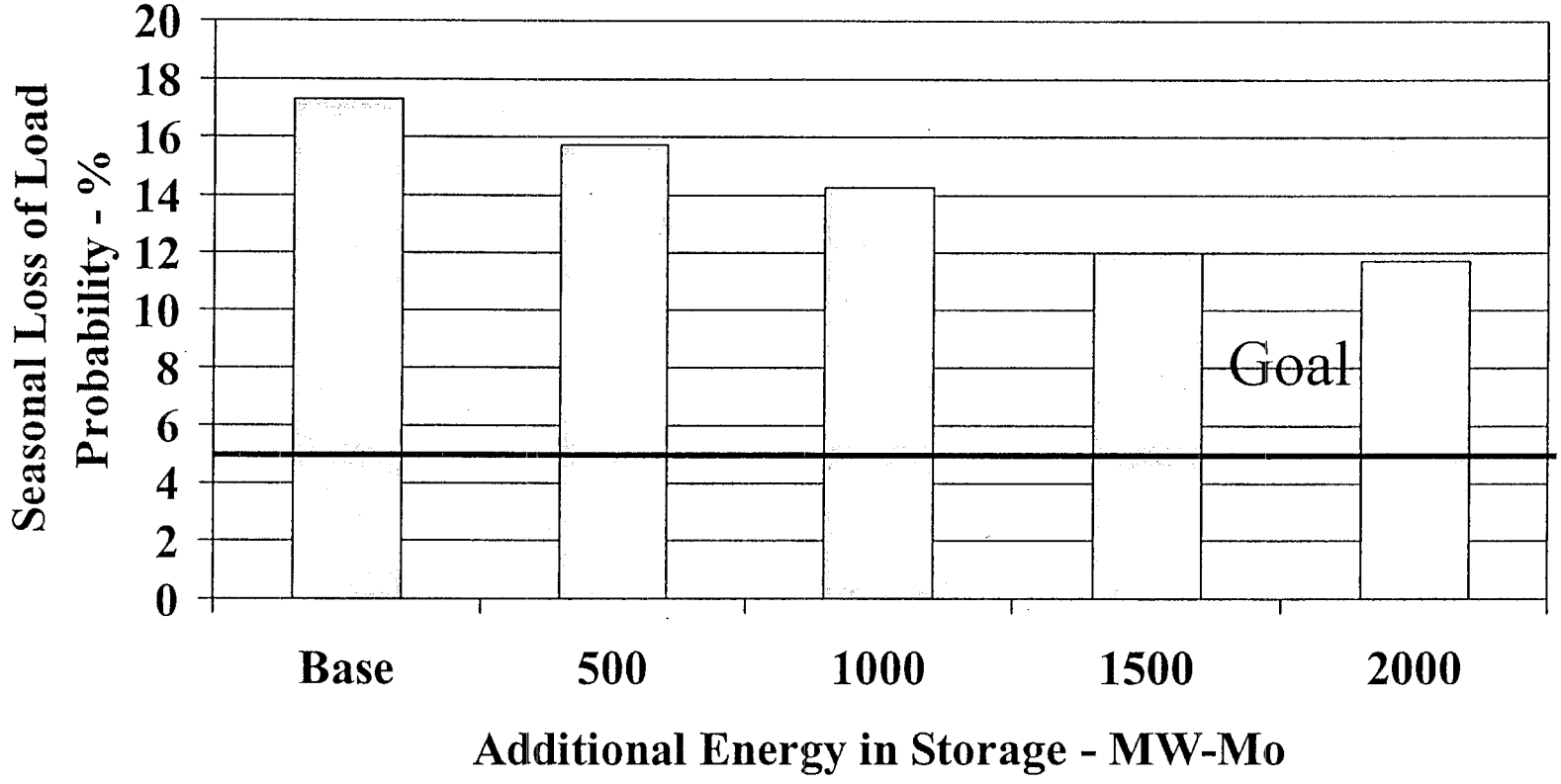
Date	Price $/MWh	Situation	Analysis	Response
March 2000	27.31			
Summer 2000	148.20 96.60 169.01	California has difficulty meeting load. During hottest part of summer peaking units run overtime. Maintenance delayed.		Industries that purchase power on the spot market experience huge price increases. First Energy Alert declared by Governor.
Winter 2001	402.86 252.47 271.96 256.13	California, a summer peaker, cannot meet winter peaking loads – first rolling blackouts. Rumors of "gaming" the newly deregulated market. Generating units down for maintenance. Northwest loses access to California imports. Low snowfall in Pacific Northwest.	NW Region stunned by loss of import capability. Northwest Power Planning Council quick analysis projects 24% loss of load probability – 5 times industry standard for reliability.	Regional government and industry planners create the Emergency Response Team and develop a Winter Energy Emergency Plan. After winter create Readiness Steering Committee to plan for summer and next winter.
April	291.23	PNW snowpack minimal. Columbia Streamflow projected to be worst in 80 years of recorded history.	Power Council analysis projects 43% loss of load probability.	BPA developing new rates – warns of possible 100% increase in rates. Negotiating to buyout aluminum plants. Utilities ramp up efficiency efforts. OTED calls utilities and major customers together to discuss plans.
May	212.14	Early hot weather in California. Second round of rolling blackouts begin. Reservoirs begin to fill.	Power Council projects 12-17 percent loss of load probability.	Plant shutdowns, buyouts, efficiency programs continue. New generation built. Decision made not to provide water for fish flow. Water will be used for generation.
June	62.10	Weather cools, loads decrease.		BPA completes ratecase. Aluminum plants shutdown, efficiency programs continue.
July	54.66	Cool weather, lower loads		No fish flush.
Aug.	41.52	Reservoirs fill to ~70%.		No fish flush.
Sept.	23.35			OTED holds workshop to assist utilities in developing curtailment plans.
Oct.	25.06		Power Council projects a less than 1% loss of load probability.	Load down approximately 20%. 1650 MW of new generation on line.
Nov.				Utilities submit final curtailment plans.

Winter 2001-02 Power Supply Adequacy/Reliability Analysis

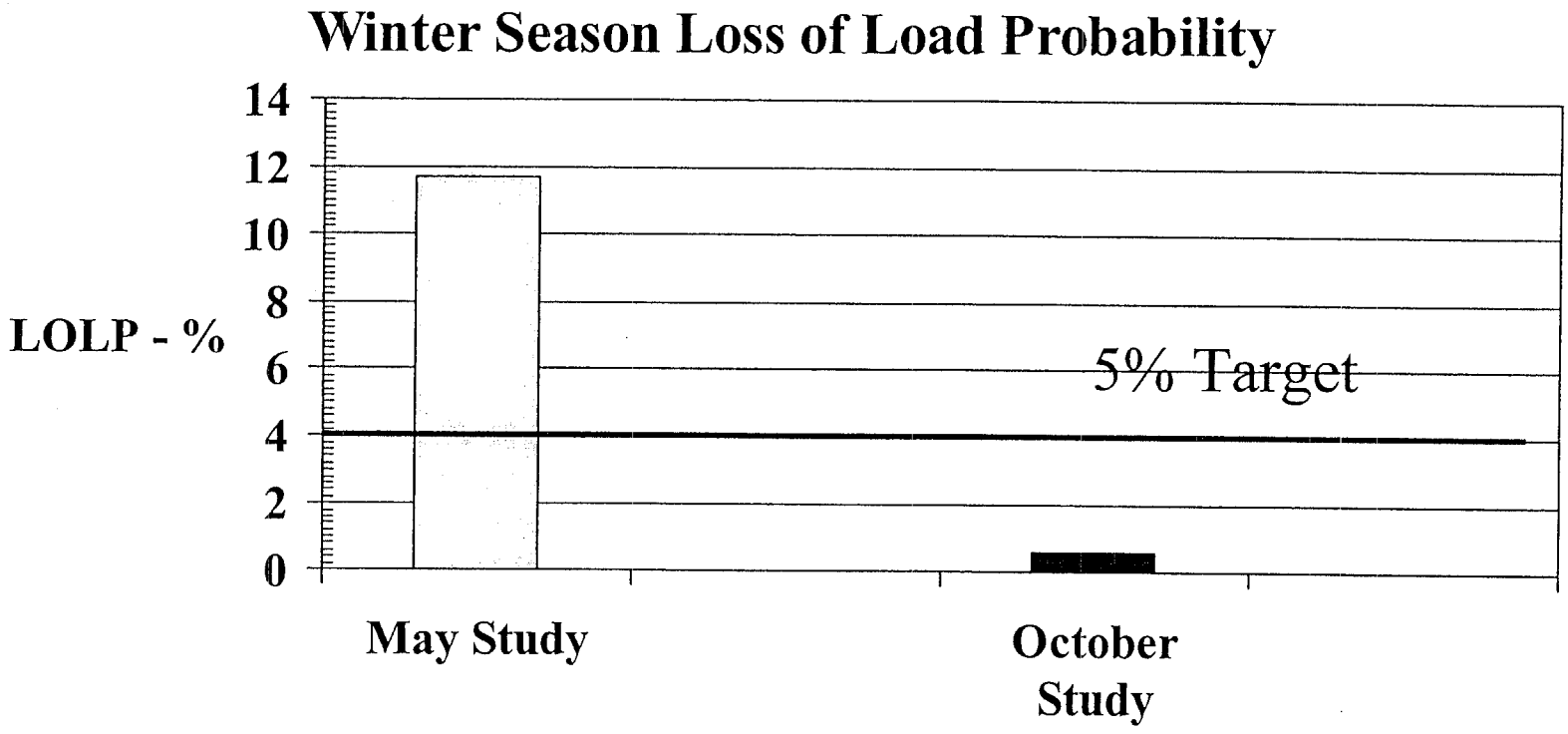
Power Committee Briefing

October 17, 2001

Results of May analysis



Results



–Insufficiencies are possible but very unlikely

–Requires combinations of extreme weather, bad water and forced outages

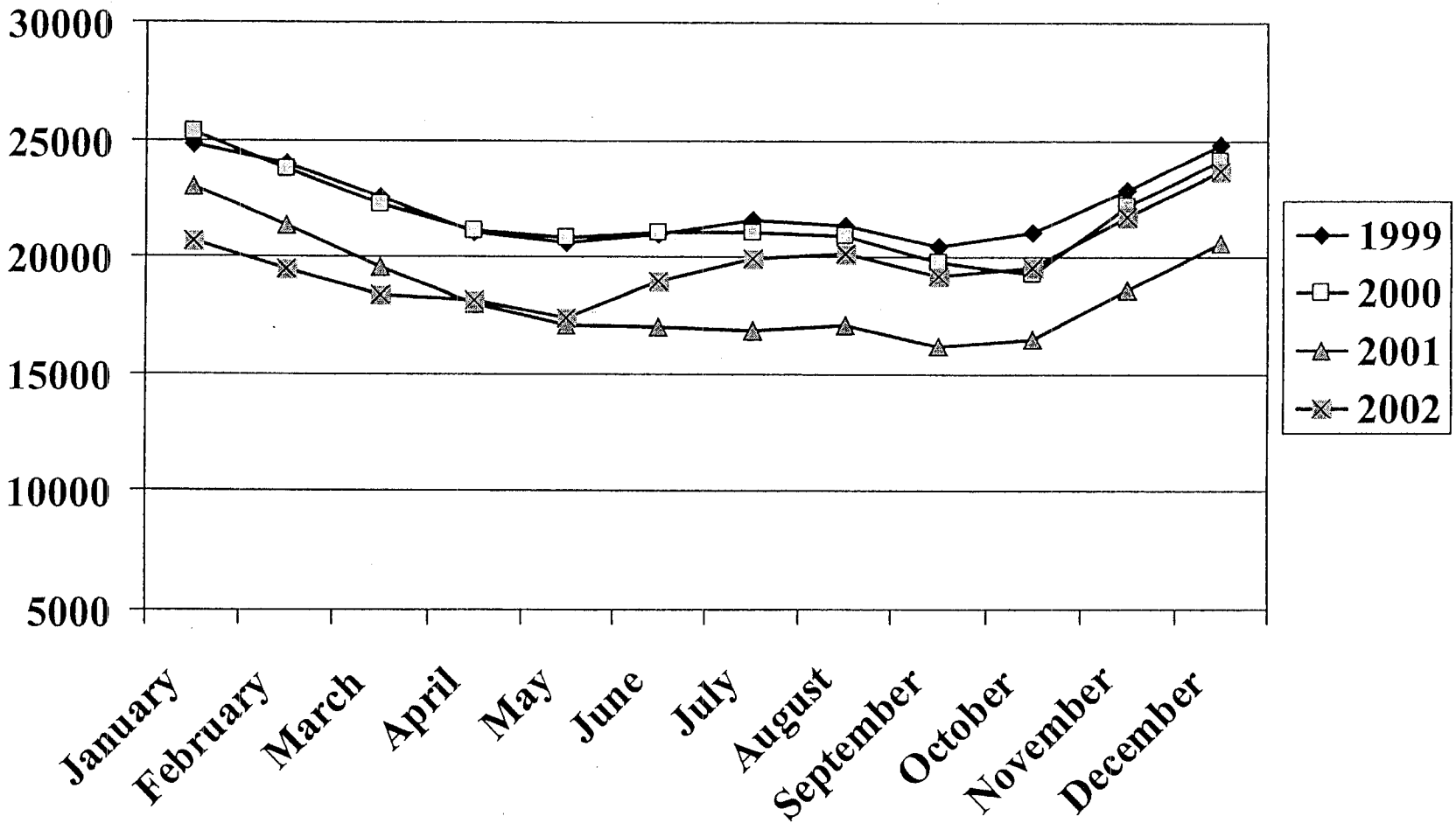
What's changed

- Aggressive actions to reduce loads – loads further reduced from May analysis
- Hydro
  - Succeeded in storing addition energy in Canada (3700 MW-Mo vs 1500 MW-Mo, increased withdrawal rate
  - Different distribution of water conditions
  - Different Canadian operation
- Improved analytics
  - Treatment of forced outages
  - Transmission

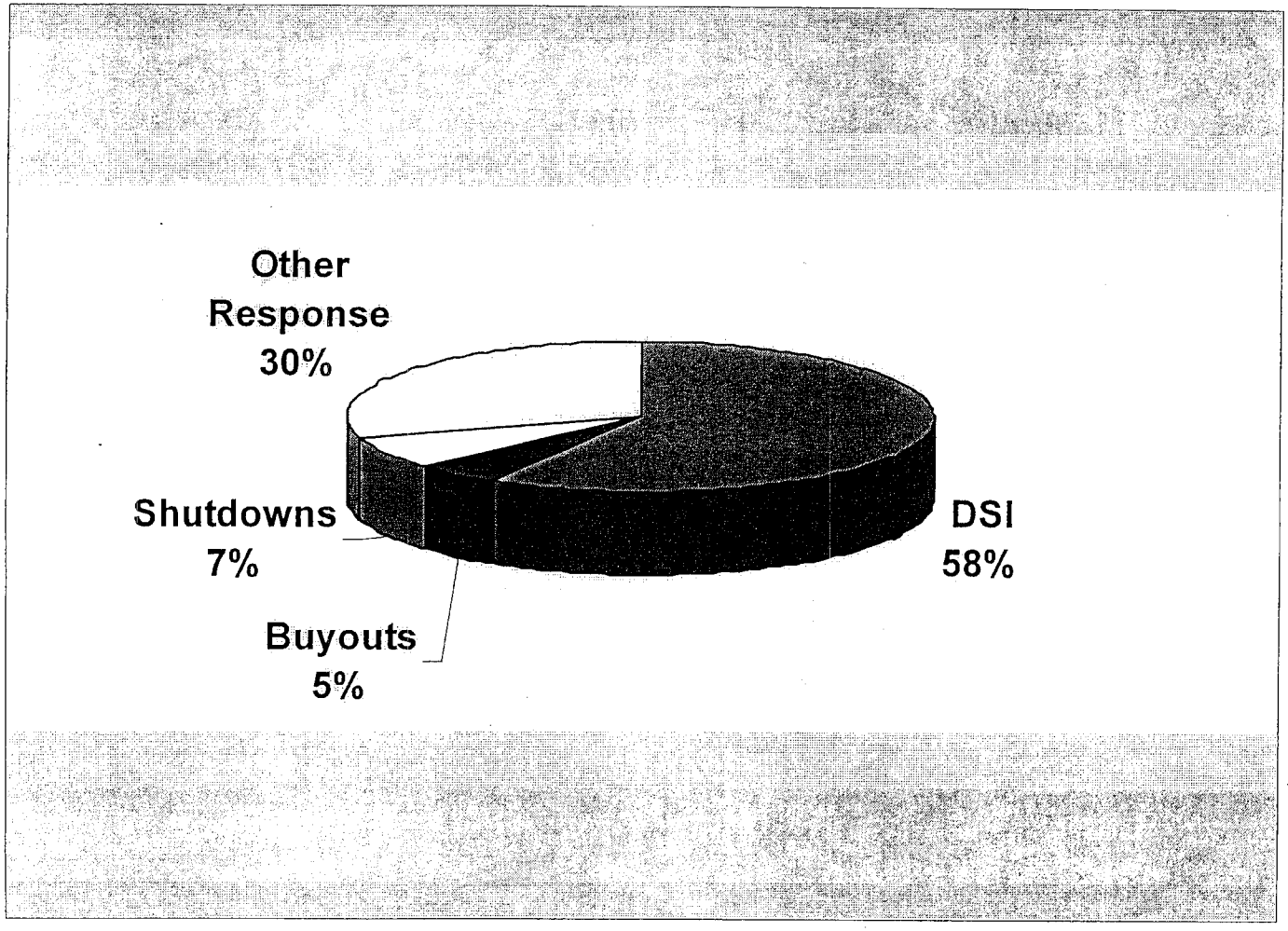
Generating Resource Prospects for Winter 2001 - 02

- On net, about 2180 MW of new generation is expected to have entered service during 2001.
  - About 1650 MW of this is permanent.
  - About 530 MW of this operates under temporary permits.
- Some additional temporary projects may be removed from service, but some unverified capacity may be available for service.

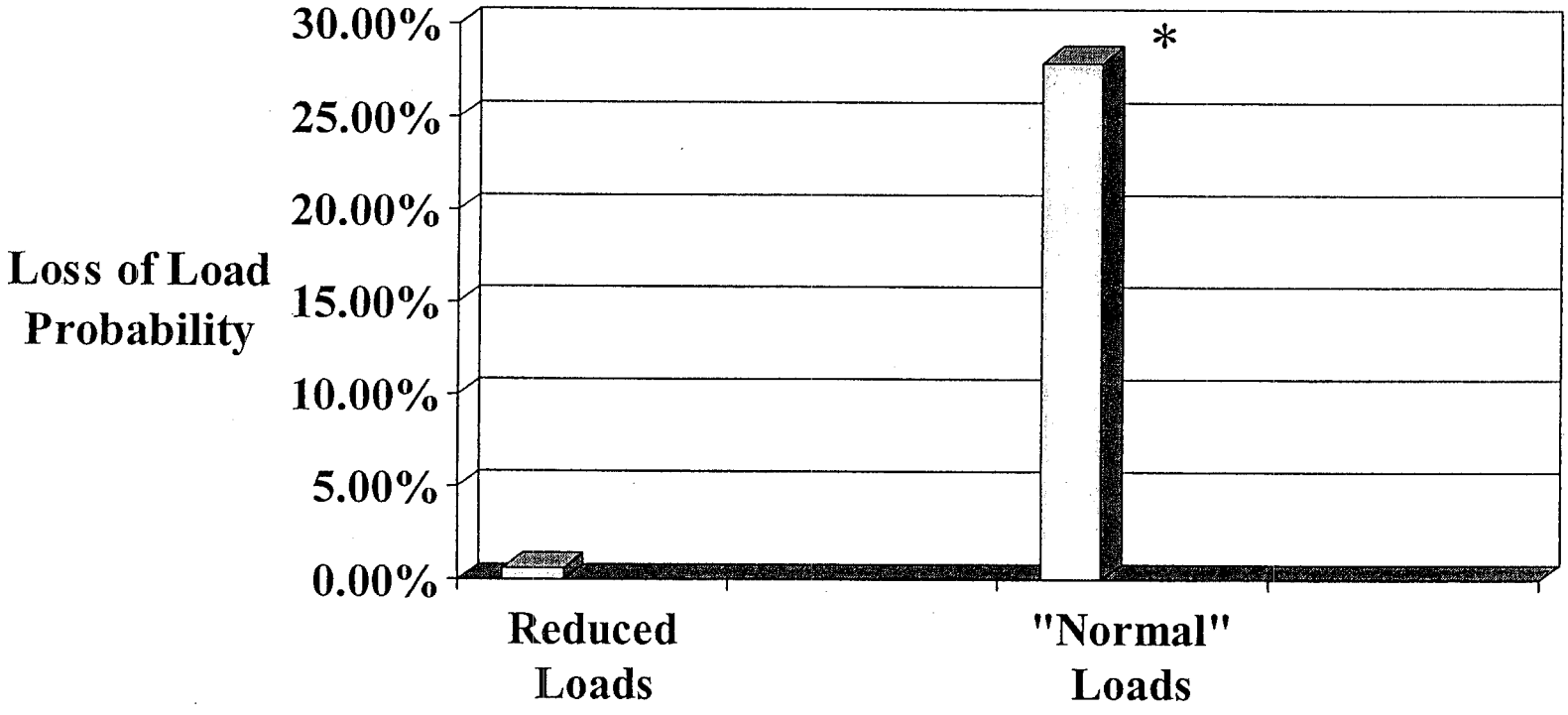
Monthly Load Patterns



Composition of July 2001 load reduction

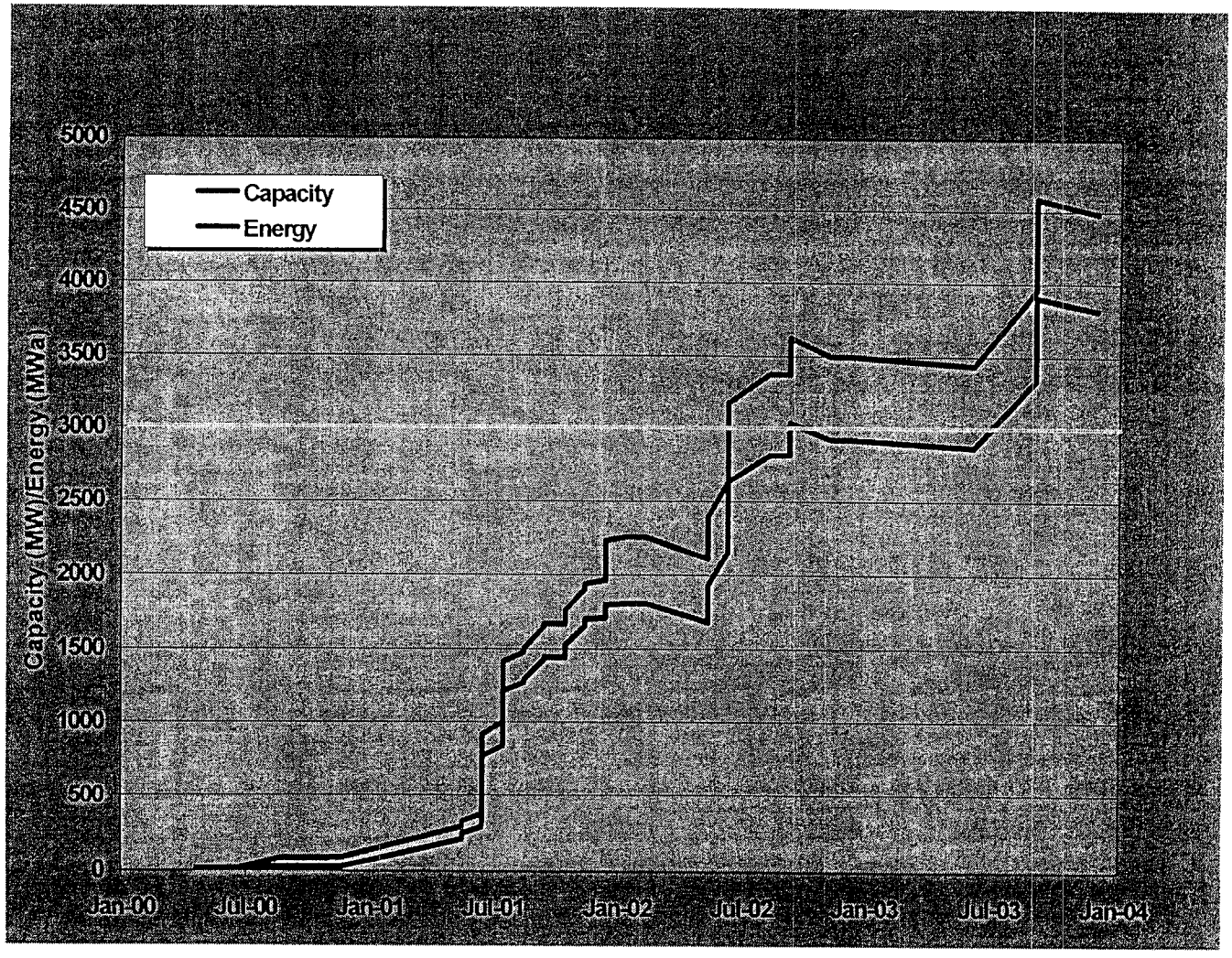


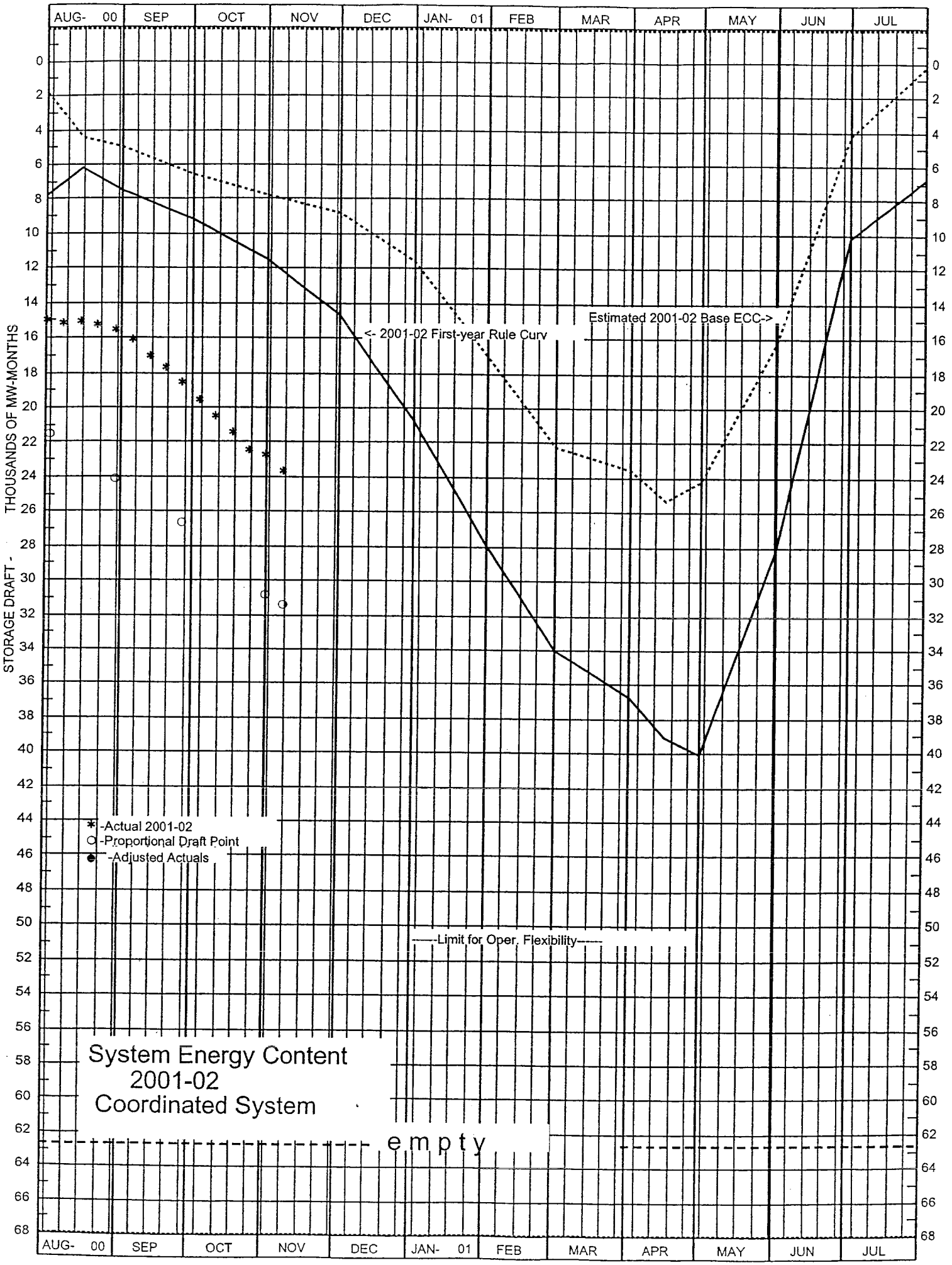
What if loads hadn't been reduced

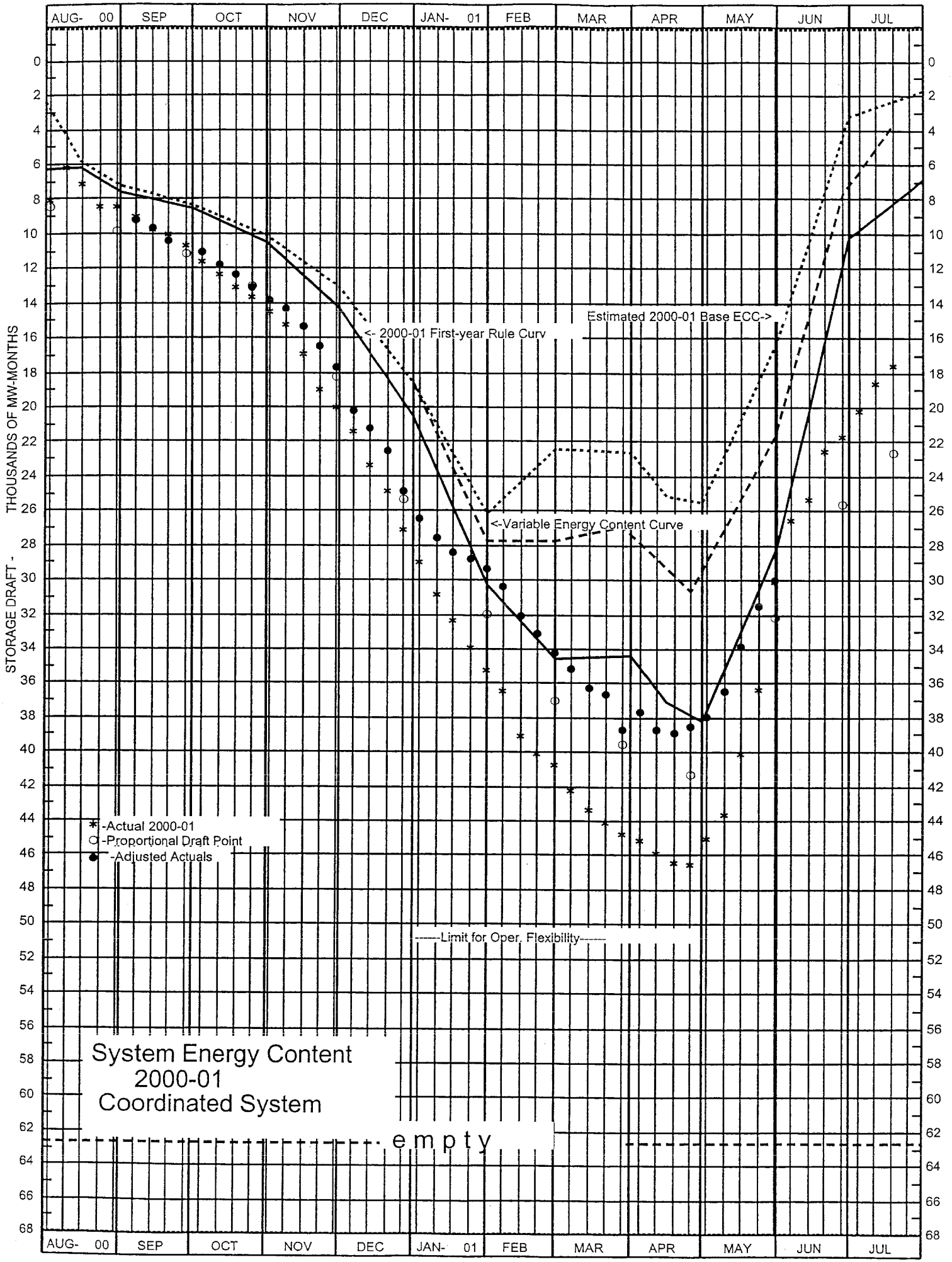


*Same hydro conditions, thermal generation and import availability

New resource expectations




AUG- 00
SEP
OCT
NOV
DEC
JAN- 01
FEB
MAR
APR
MAY
JUN
JUL
STORAGE DRAFT - THOUSANDS OF MW-MONTHS
<- 2001-02 First-year Rule Curv
Estimated 2001-02 Base ECC->
*-Actual 2001-02
O-Proportional Draft Point
●-Adjusted Actuals
Limit for Oper. Flexibility
System Energy Content
2001-02
Coordinated System
empty


AUG- 00
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MAY
JUN
JUL
STORAGE DRAFT - THOUSANDS OF MW-MONTHS
<- 2000-01 First-year Rule Curv
Estimated 2000-01 Base ECC->
<-Variable Energy Content Curve
*-Actual 2000-01
O-Proportional Draft Point
●-Adjusted Actuals
-----Limit for Oper. Flexibility-----
System Energy Content
2000-01
Coordinated System
empty

Recent Rate Increases for Major Electric Utilities Serving Washington Customers				
	% Increase		# of Customers	Rate data Available?
Alder Mutual Light Co Inc				
Avista	25.0%		204,460	
Benton Rural Electric Assn	32.0%		12,109	
Big Bend Electric Coop Inc				
Blaine, City of	22.0%		2,321	Y
Cashmere City of				
Centralia, City of				
Cheney City of				
Chewelah City of				
Clearwater Power Co				
Columbia Rural Elec Assn Inc				
Coulee Dam City of				
Eatonville, Town of				Y
Ellensburg, City of				
Elmhurst				Y
Fircrest, City of				
Inland Power & Light Co	0.0%		29,363	
Kootenai Electric Coop Inc				
Lakeview Power and Light				Y
McCleary, City of				
Milton, City of				Y
Modern Electric Water Co				
Nespelem Valley Elec Coop Inc				
Northern Lights Inc				
Ohop				Y
Okanogan County Elec Coop Inc				
Orcas Power & Light Co				
PacifiCorp	6.0%	approx	117,004	Y
Parkland Light & Water Co				Y
Peninsula Light Co	33.0%	approx	25,447	Y
Port Angeles City of				
PUD No 1 of Asotin County				
PUD No 1 of Benton County	38.5%		40,314	
PUD No 1 of Chelan County				Y
PUD No 1 of Clallam County	22.5%		27,856	Y
PUD Clark County	40.0%		146,723	Y
PUD No 1 Cowlitz PUD	42.6%		43,823	Y
PUD No 1 of Douglas County				Y
PUD No 1 of Ferry County	25.5%		3,017	
PUD No 1 of Franklin County	44.2%		18,316	
PUD No 1 of Grays Harbor County				
PUD No 1 of Kittitas County	24.0%		2,863	
PUD No 1 of Klickitat County				
PUD No 1 of Lewis County	30.0%		26,720	Y
PUD No 1 of Mason County	15.0%		4,624	Y

Recent Rate Increases for Major Electric Utilities Serving Washington Customers				
	% Increase		# of Customers	Rate data Available?
PUD No 1 of Okanogan County	30.0%		18,747	Y
PUD No 1 of Pend Oreille County	19.0%		7,474	Y
PUD No 1 of Skamania County	22.0%	approx	4,983	Y
PUD No 1 of Snohomish County	36.0%	approx	255,573	Y
PUD No 1 of Wahkiakum County	29.2%		2,066	
PUD No 1 of Whatcom County				
PUD No 2 of Grant County				
PUD No 2 of Pacific County	33.0%		15,708	Y
PUD No 3 of Mason County	15.0%		27,261	
Puget Sound Energy	0.0%		899,902	Y
Richland, City of				Y
Ruston Town of				
Seattle City Light	30.0%	approx	345,512	Y
Steilacoom	32.0%		2,670	Y
Sumas, City of				
Tacoma Power	40.0%	approx	146,132	Y
Tanner Electric Coop				
Vera Irrigation District #15				
Total customers represented			2,430,988	
Total customers in State			2,707,232	
% of customers represented	90%			
average increase	26.4%			