

**Big Thompson Powerplant  
Seasonal**

**Ancillary Services**

**Big Thompson  
Ancillary Services**

Spinning Reserve	No
Non-Spinning Reserve	No
Replacement Reserve	No
Regulation/Load Following	No
Black Start	No
Voltage Support	No

**Generators**

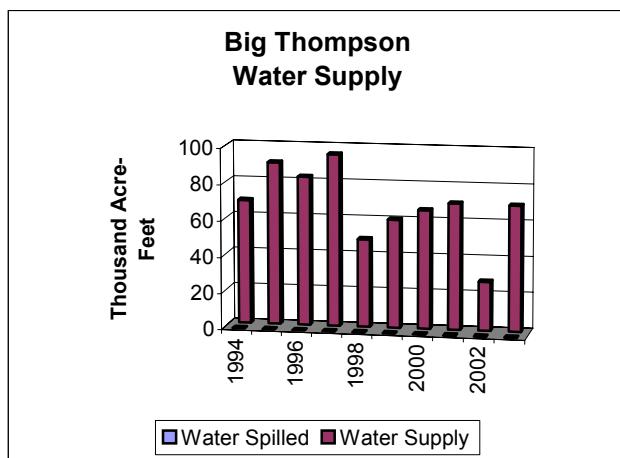
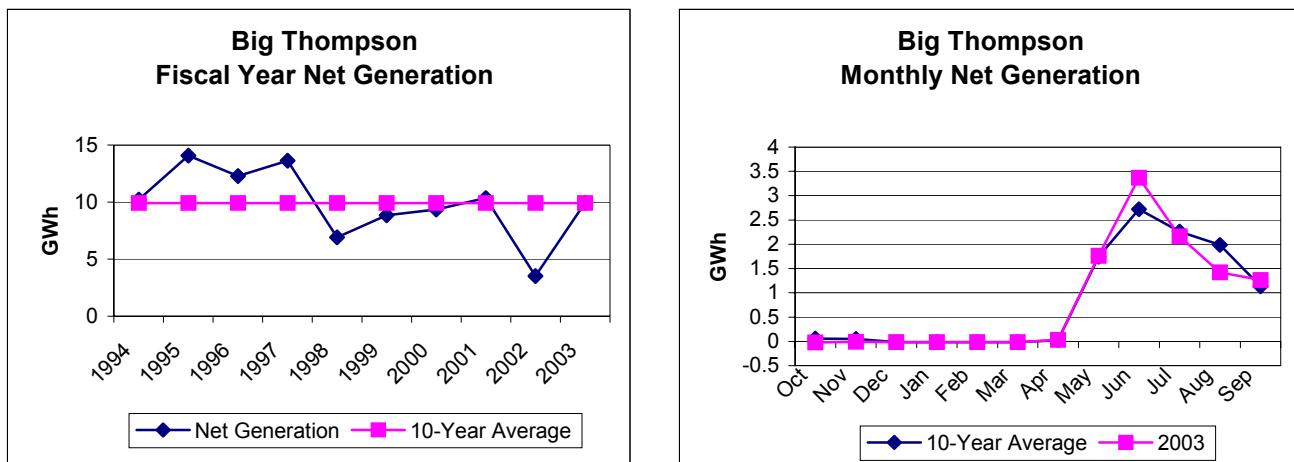
**Big Thompson Generators**

Existing Number and Capacity

Unit #	Original Capacity (kW)	Capacity Increased (kW)	Present Capacity (kW)
1	4,500	0	4,500
1 Unit	4,500	0	4,500

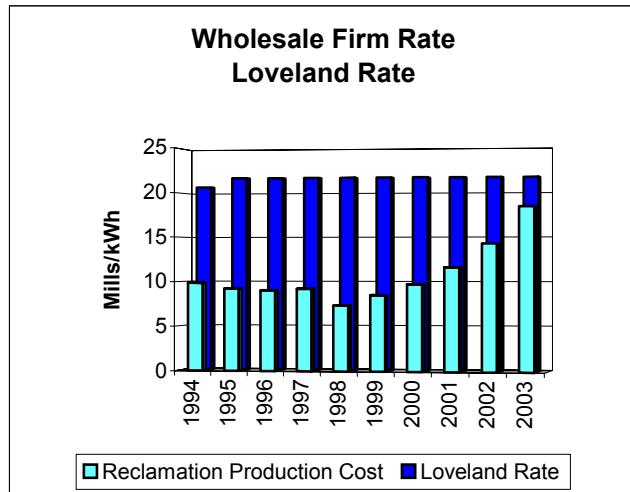
**Big Thompson Powerplant  
Seasonal**

**Generation**

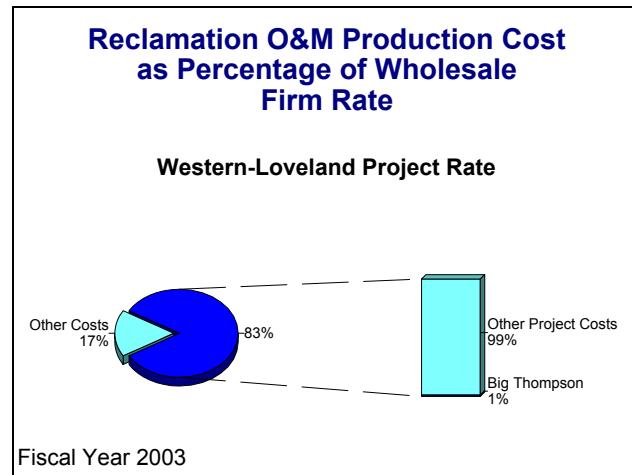


**Prime Laboratory Benchmarks**

**Benchmark 1  
Wholesale Firm Rate**

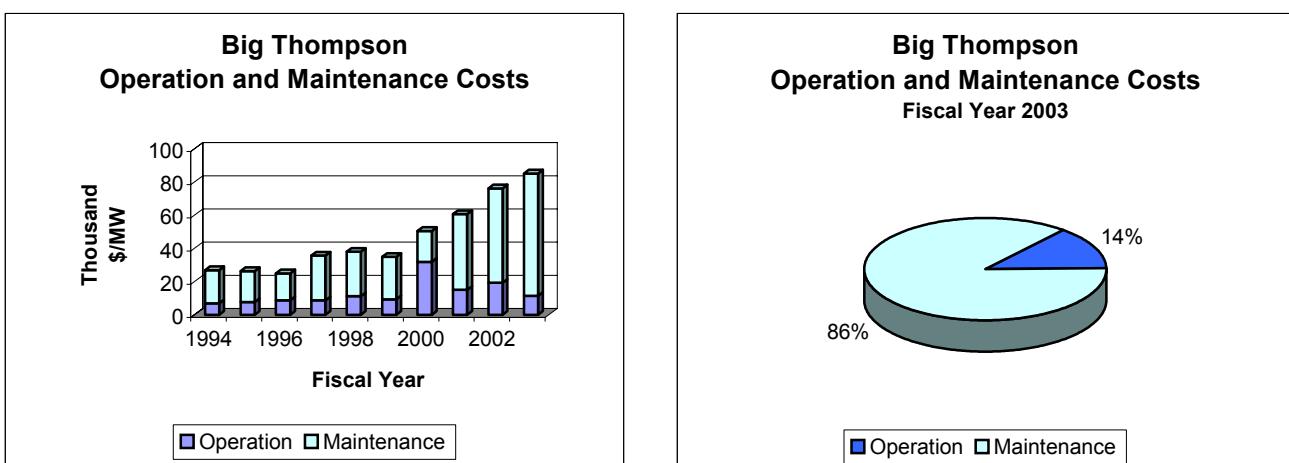
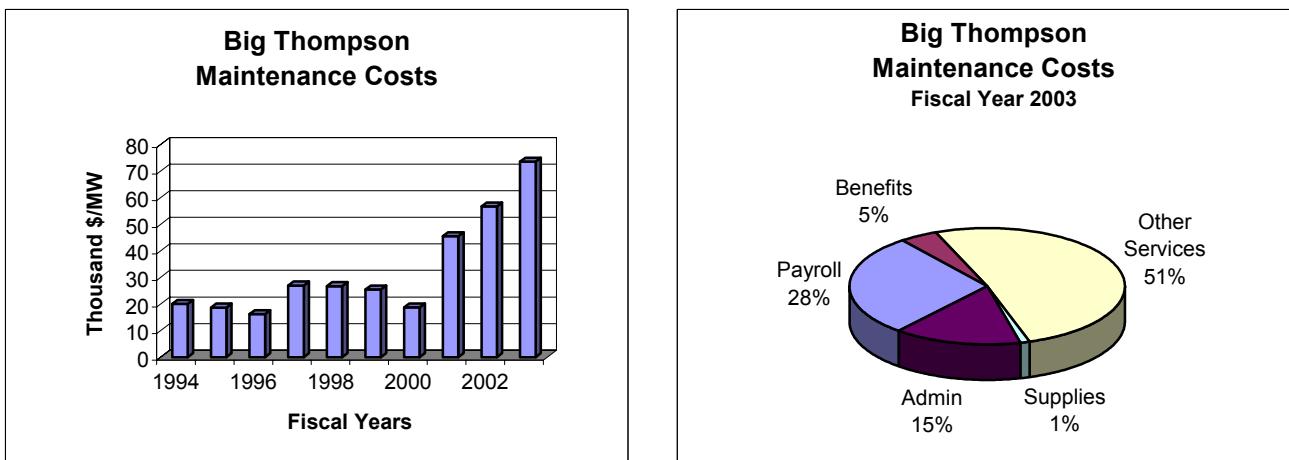
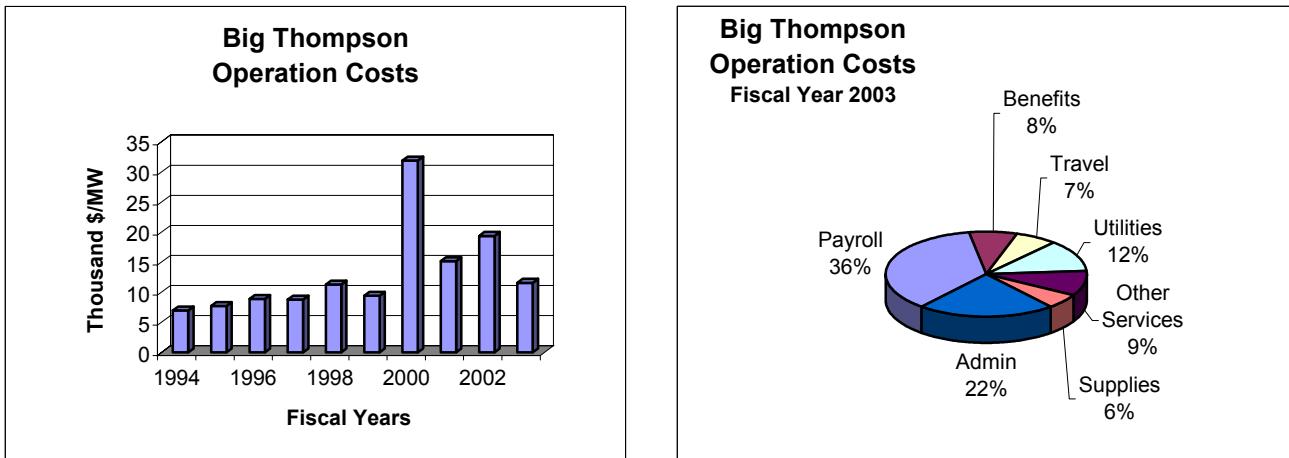


**Benchmark 2  
Reclamation's Production Cost as Percentage of Wholesale Firm Rate**



## Big Thompson Powerplant Seasonal

### Benchmark 3 Production Cost



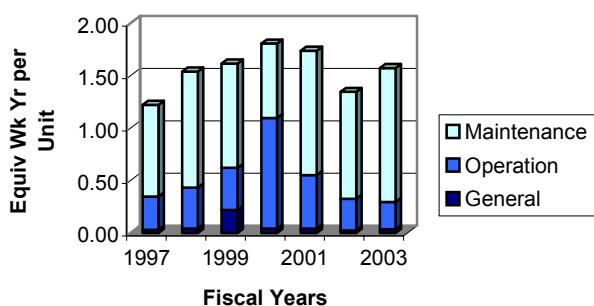
**Big Thompson Powerplant  
Seasonal**

**Benchmark 4  
Workforce Deployment**

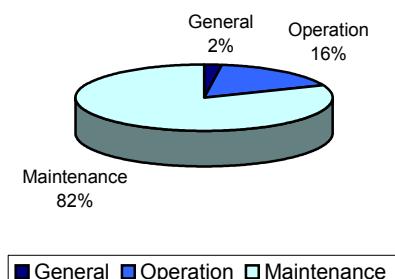
**Big Thompson  
2003 Equivalent  
Work Year Levels**

	Equiv Work Year Charged to Powerplant	Leave Additive	Denver and Washington Equiv Work Year Additive	Total Equiv Work Year Allocated to Powerplant	Total Equiv Work year per Generating Unit	Total Equiv Work Year per Megawatt
General	0.0	0	0.02	0.0	0.0	0.0
Operation	0.2	0.0	0	0.3	0.3	0.1
Maintenance	1.2	0.1	0	1.3	1.3	0.3
Total Staffing	1.4	0.15	0.02	1.57	1.57	0.4

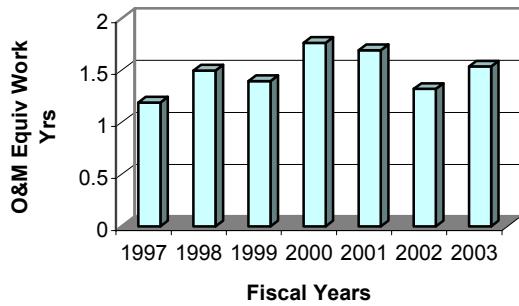
**Big Thompson  
Equivalent Work Year per Unit**



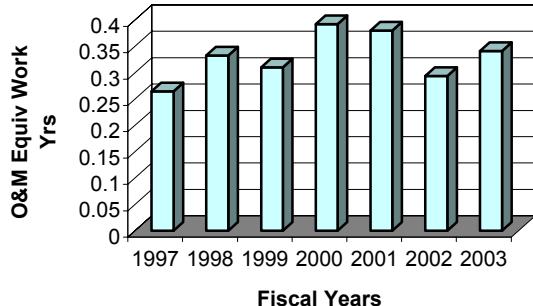
**Big Thompson  
Equivalent Work Year per Unit  
2003**



**Big Thompson  
O&M Equivalent Work Years per Unit**

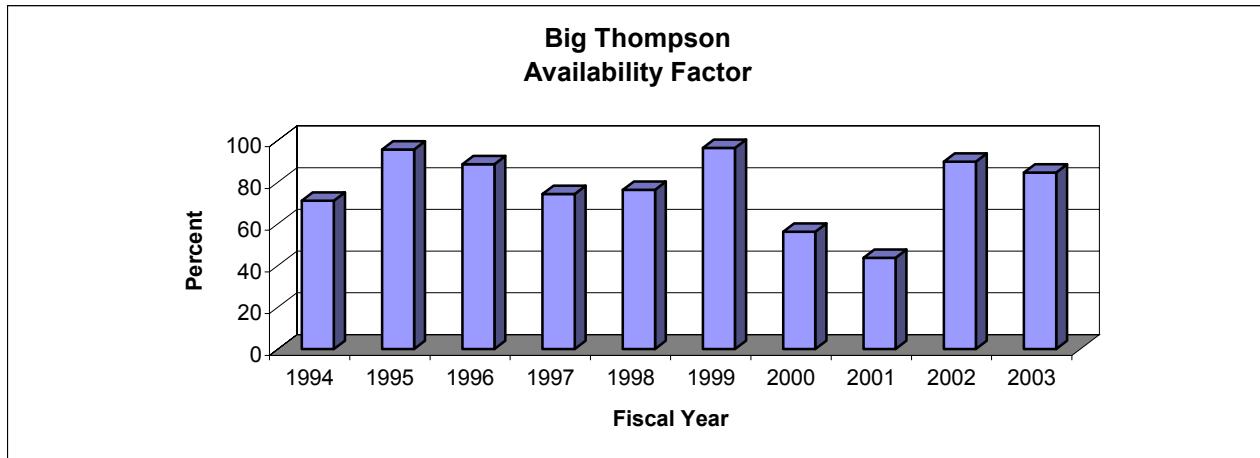


**Big Thompson  
O&M Equivalent Work Years per MW**



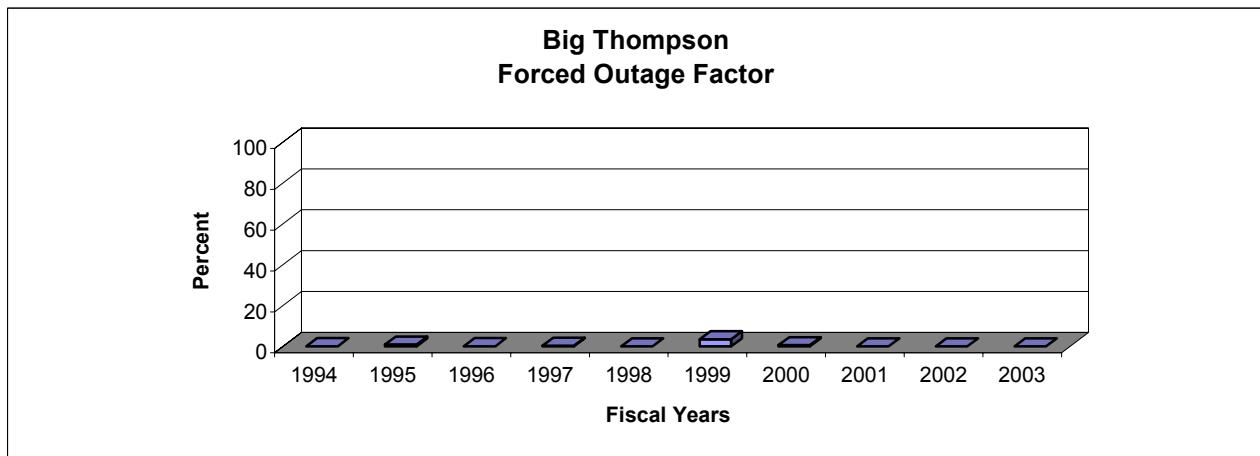
**Big Thompson Powerplant  
Seasonal**

**Benchmark 5  
Availability Factor**



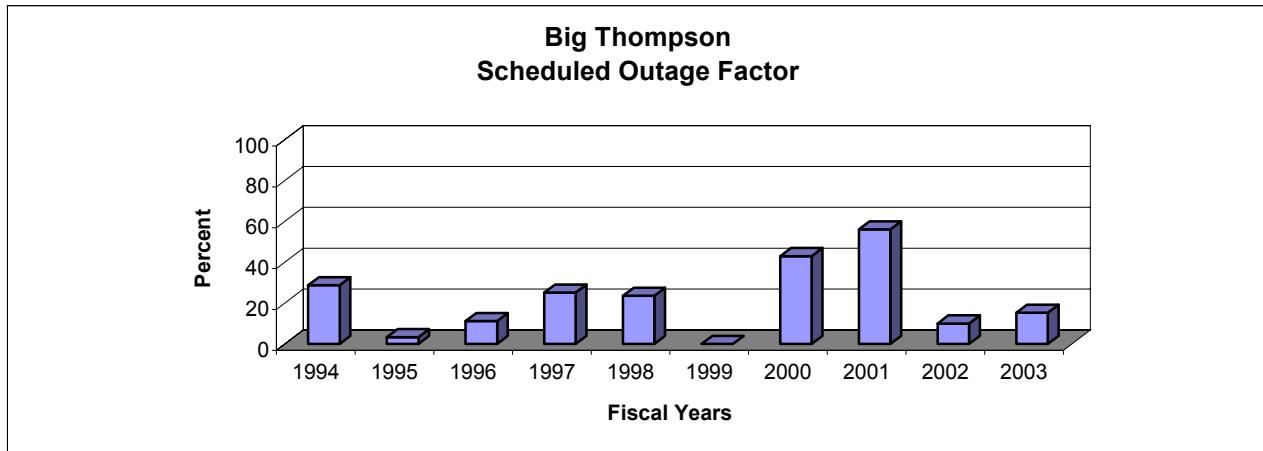
Low availability factor for Big Thompson is caused by problems in the water system and severe restrictions on water flow to Horsetooth Reservoir.

**Benchmark 6  
Forced Outage Factor**



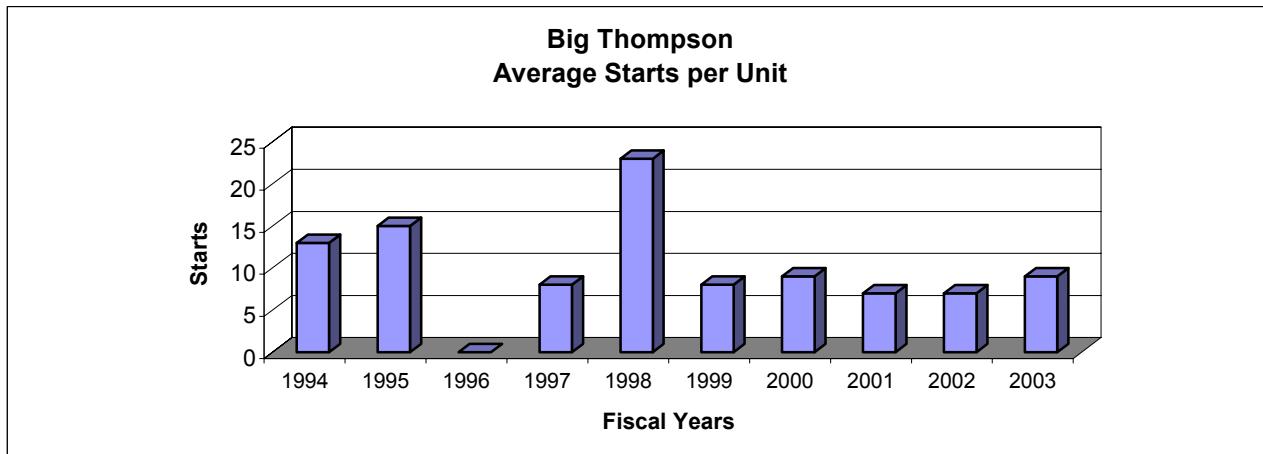
**Big Thompson Powerplant  
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**Benchmark 7  
Scheduled Outage Factor**



High scheduled outage factor for Big Thompson is caused by problems in the water system and severe restrictions on water flow to Horsetooth Reservoir.

**Starts**



## Benchmark Data Comparison

Fiscal Year 2003	Big Thompson	Total Reclamation Average	Industry Average	Best Performers
<b>Wholesale Firm Rate Mills/kWh</b>	21.7	*23.1	Not Available	Not Available
<b>Production Cost as Percentage of Wholesale Firm Rate</b>	1.12%	12.0%	Not Applicable	Not Applicable
<b>O&amp;M Cost \$/MWh</b>	38.6	2.7	Not Applicable	1.1
<b>O&amp;M Costs \$/MW</b>	85,181	7,315	Not Applicable	3,108
<b>O&amp;M Equiv Work Year per MW</b>	0.3	0.04	Not Available	0.010
<b>Availability Factor</b>	84.6	83.6	**88.9	99.1
<b>Forced Outage Factor</b>	0.0	1.5	**2.4	0.0
<b>Scheduled Outage Factor</b>	15.4	14.9	**8.7	0.0

\*Weighted by Net Generation

\*\*2002 NERC Average