

## **Pole Hill Powerplant Colorado-Big Thompson Project**

### **Ancillary Services**

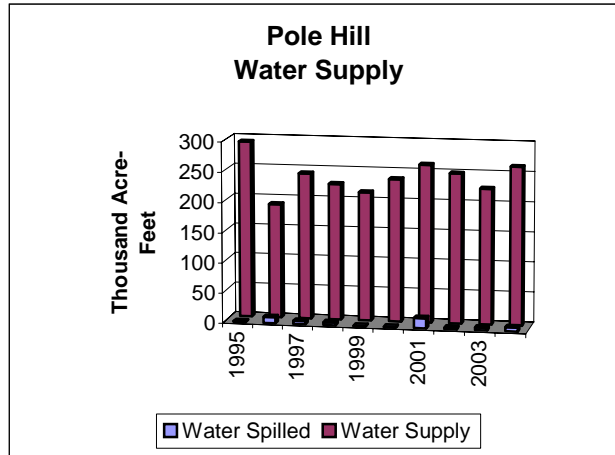
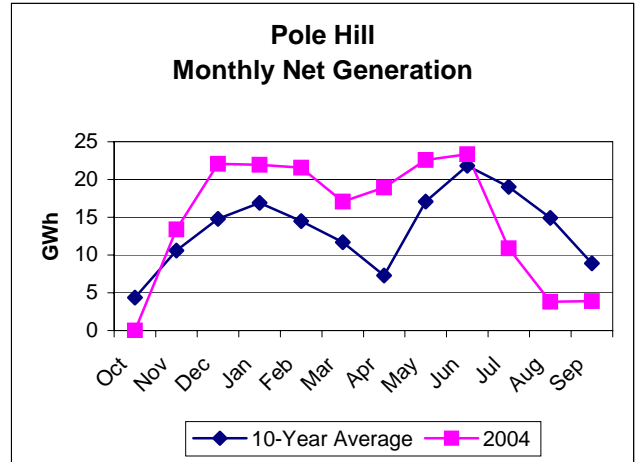
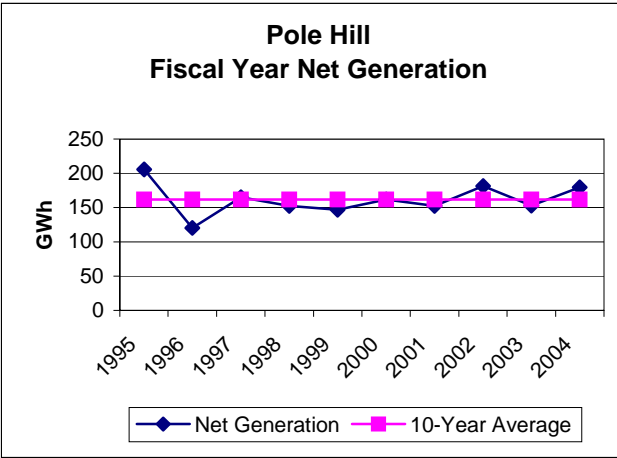
<b>Pole Hill Ancillary Services</b>	
Spinning Reserve	No
Non-Spinning Reserve	No
Replacement Reserve	No
Regulation/Load Following	No
Black Start	Yes
Voltage Support	Yes

### **Generators**

<b>Pole Hill Generators</b>			
Existing Number and Capacity			
Unit #	Original Capacity (kW)	Capacity Increased (kW)	Present Capacity (kW)
1	33,200	5,000	38,200
1 Unit	33,200	5,000	38,200

**Pole Hill Powerplant  
30-100 MW**

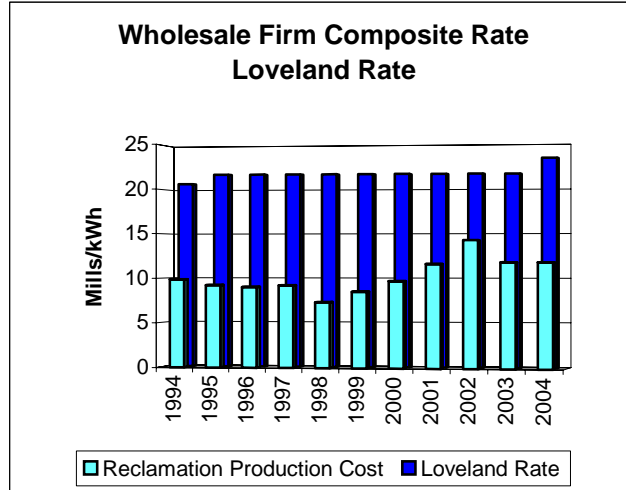
**Generation**



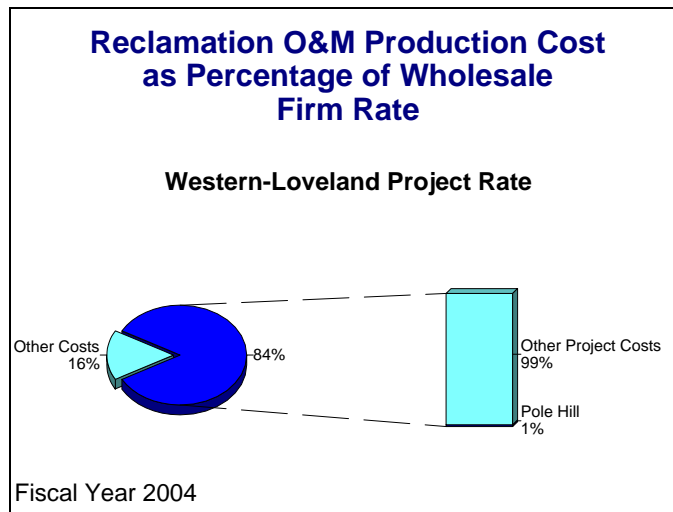
Increase of water spilled in 2001 caused by the need to by-pass water during the annual plant maintenance outage.

**Prime Laboratory Benchmarks**

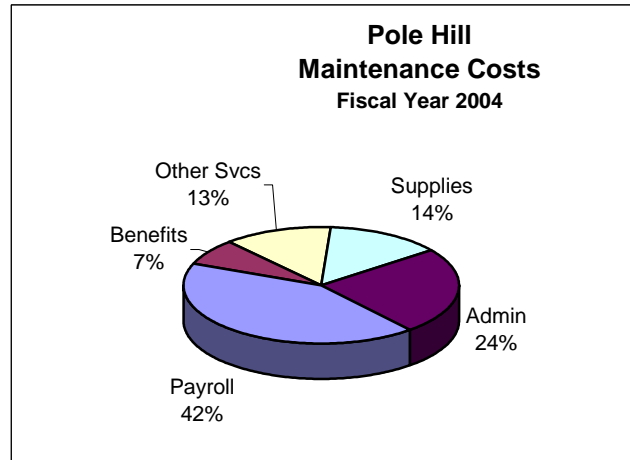
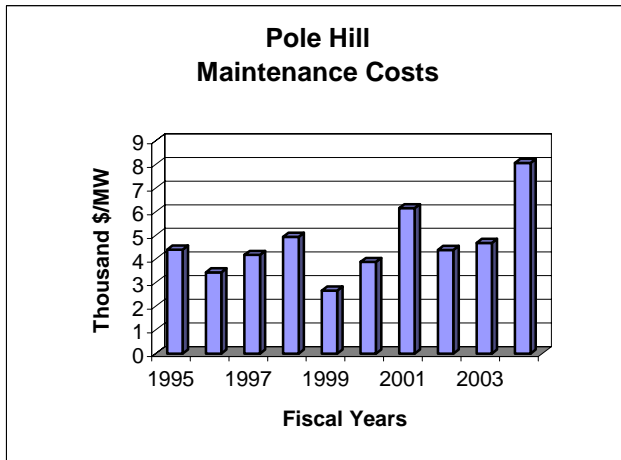
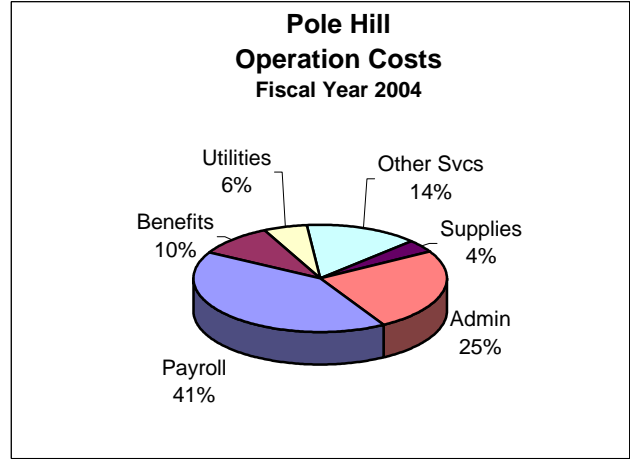
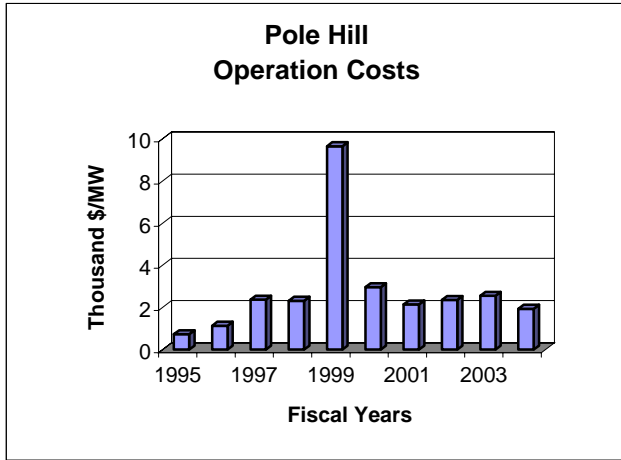
**Benchmark 1  
Wholesale Firm Rate**



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

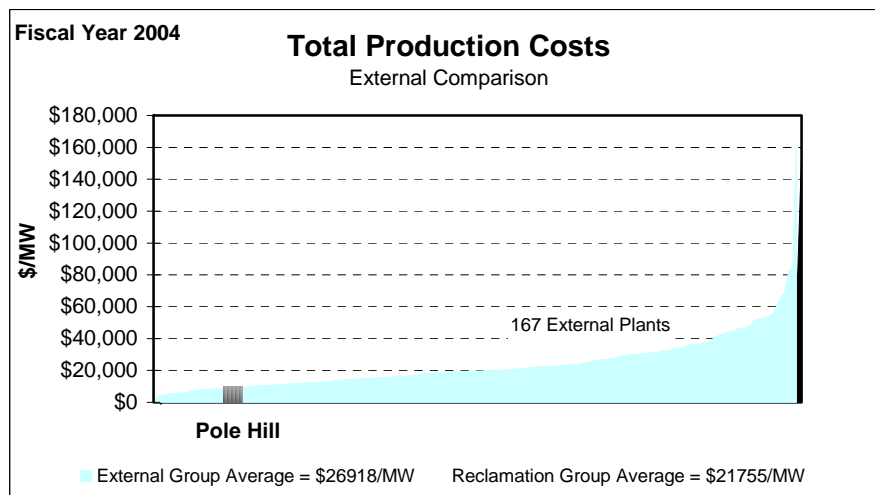
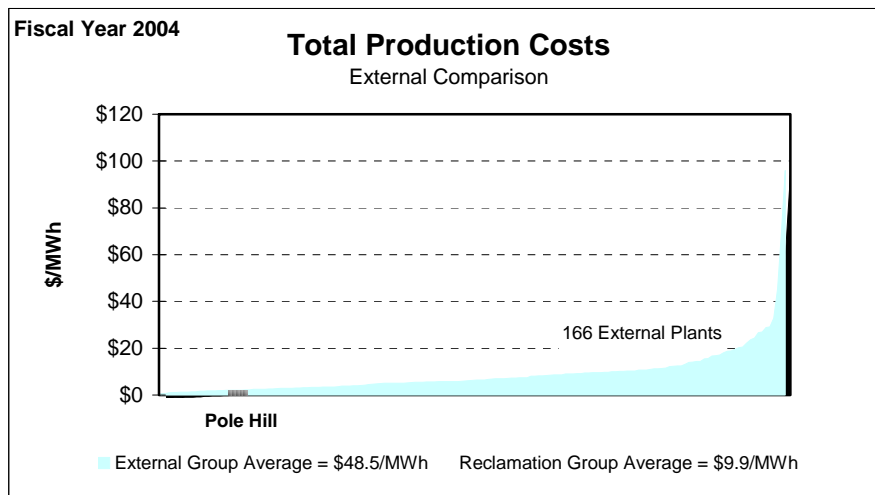
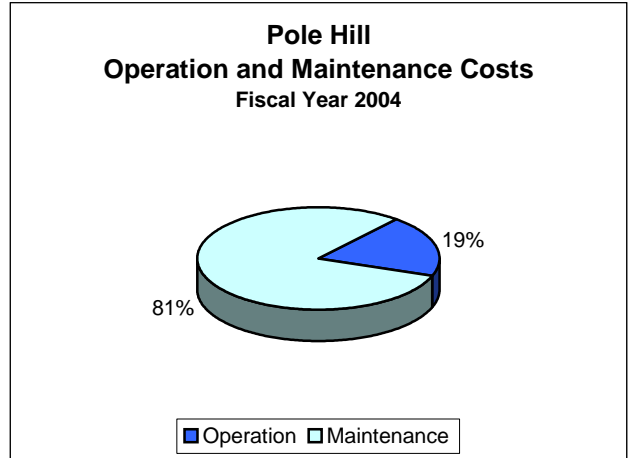
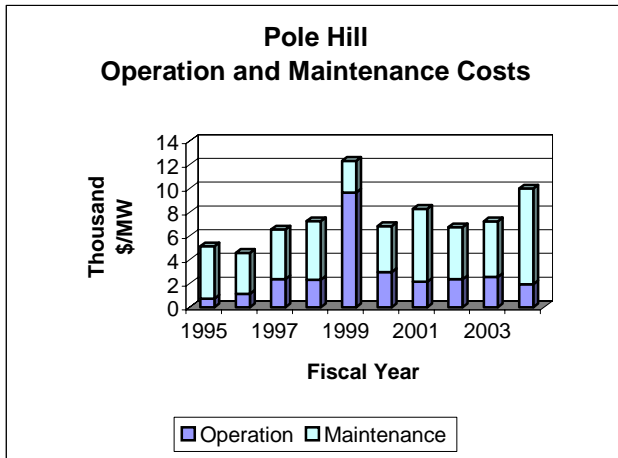


**Benchmark 3  
Production Cost**



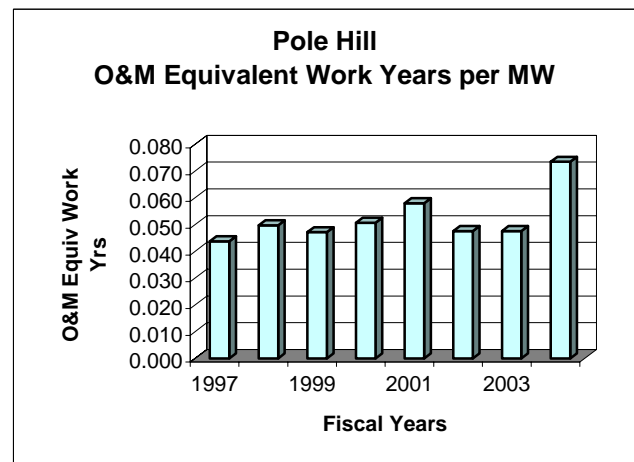
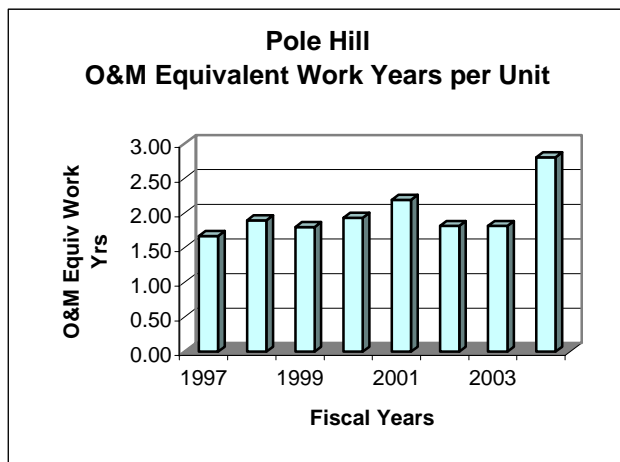
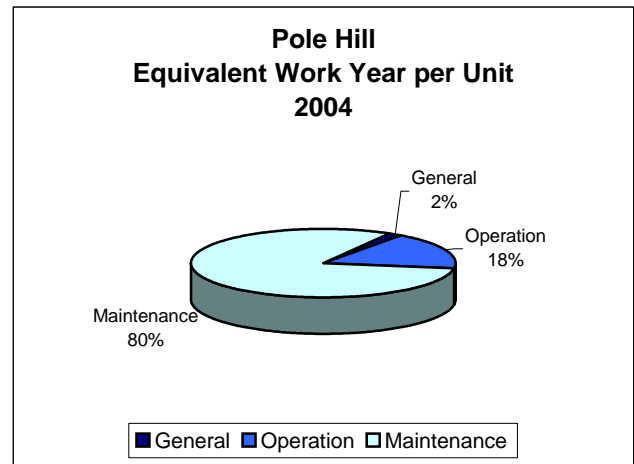
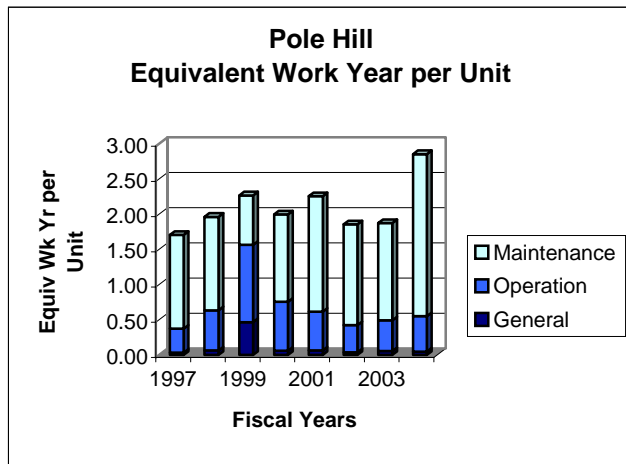
Maintenance cost increased due to the conclusion for ROM items.

**Benchmark 3  
Production Cost**

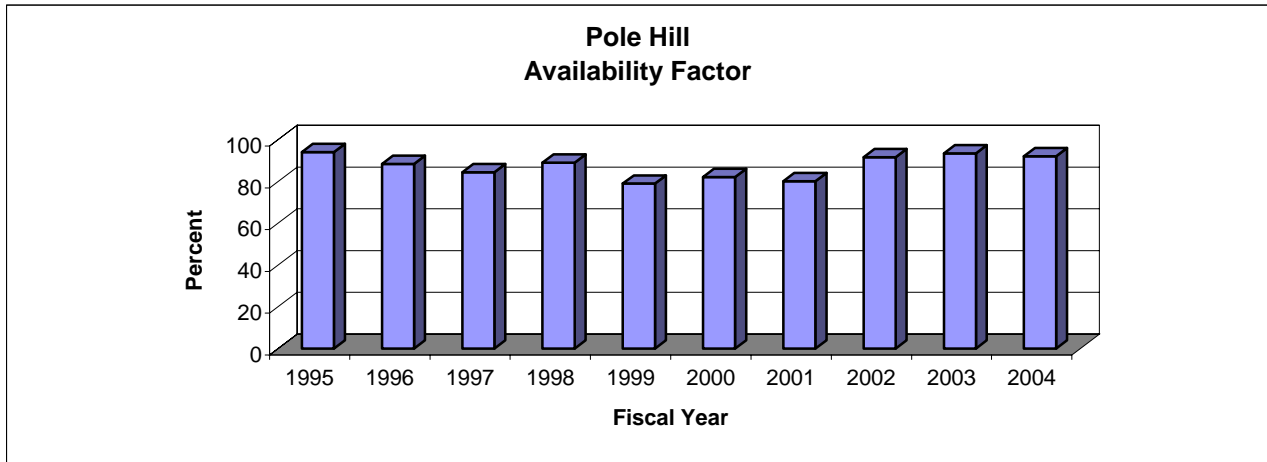


Benchmark 4  
Workforce Deployment

Pole Hill 2004 Equivalent Work Year Levels						
	Equip Work Year Charged to Powerplant	Leave Additive	Denver and Washington Equip Work Year Additive	Total Equip Work Year Allocated to Powerplant	Total Equip Work Year per Generating Unit	Total Equip Work Year per Megawatt
General	0.03	0.00	0.02	0.05	0.05	0.00
Operation	0.45	0.05	0.00	0.50	0.50	0.01
Maintenance	2.06	0.24	0.00	2.30	2.30	0.06
Total Staffing	2.54	0.29	0.02	2.85	2.85	0.07

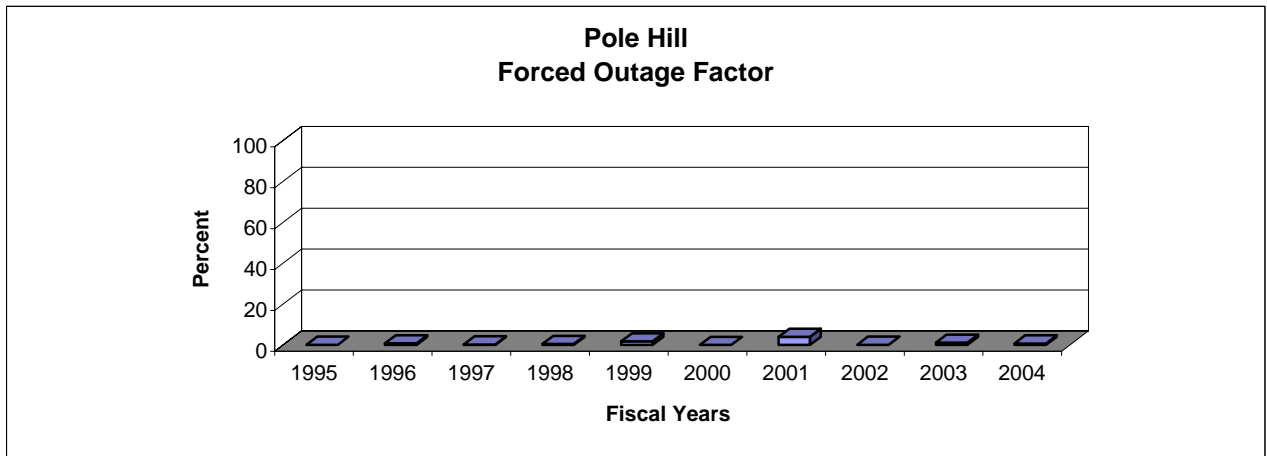


**Benchmark 5  
Availability Factor**



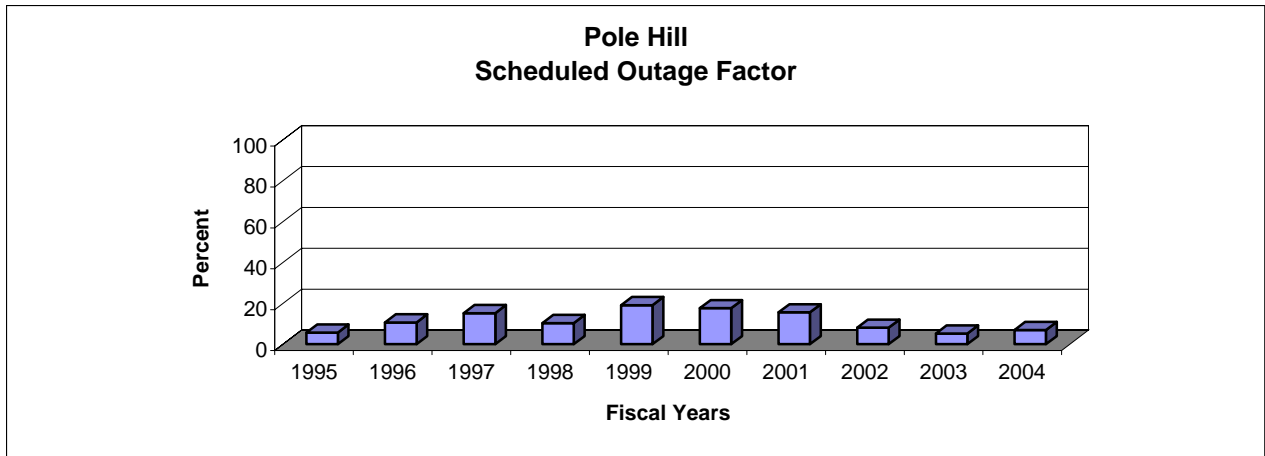
FY-99 and FY-00 - Low availability factor due to water flow restrictions.

**Benchmark 6  
Forced Outage Factor**



FY-94 - Oil cooling problem

**Benchmark 7  
Scheduled Outage Factor**

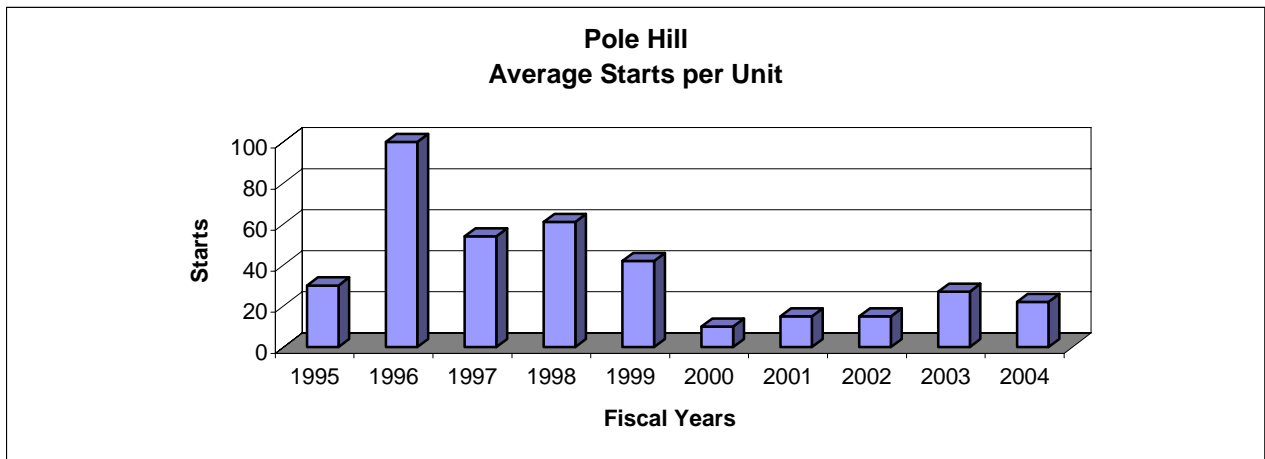


FY-96 - Extended maintenance

FY-97 - Canal outage and switchyard work

FY-99 and FY-00 - High outage factor due to water flow restrictions

**Starts**





**Pole Hill Powerplant  
30-100 MW**

<b>Benchmark Data Comparison</b>					
<b>Fiscal Year 2004</b>	<b>Pole Hill Powerplant</b>	<b>Reclamation Average 30-100 MW Group</b>	<b>Total Reclamation Average</b>	<b>Industry Average</b>	<b>Best Performers</b>
<b>Wholesale Firm Rate Mills/kWh</b>	21.7	Not Applicable	*21.06	Not Available	Not Available
<b>Production Cost as Percentage of Wholesale Firm Rate</b>	1.06%	Not Applicable	13.5%	Not Applicable	Not Applicable
<b>O&amp;M Cost \$/MWh</b>	2.13	7.90	2.77	48.48	1.23
<b>O&amp;M Costs \$/MW</b>	10,002.08	19,931.46	7,316.97	26,917.84	2,951.22
<b>O&amp;M Equip Work Year per MW</b>	0.07	0.11	0.04	Not Available	0
<b>Availability Factor</b>	92.2	88.1	86.9	**89.2	99.96983495
<b>Forced Outage Factor</b>	0.8	0.3	0.7	**1.9	0.00
<b>Scheduled Outage Factor</b>	7.0	11.5	12.4	**8.9	0.02

\*Weighted by Net Generation

\*\*2003 NERC Average