

# Spring Creek Powerplant Central Valley Project

## Ancillary Services

Spring Creek Ancillary Services	
Spinning Reserve	Yes
Non-Spinning Reserve	Yes
Replacement Reserve	Yes
Regulation/Load Following	Yes
Black Start	No
Voltage Support	Yes

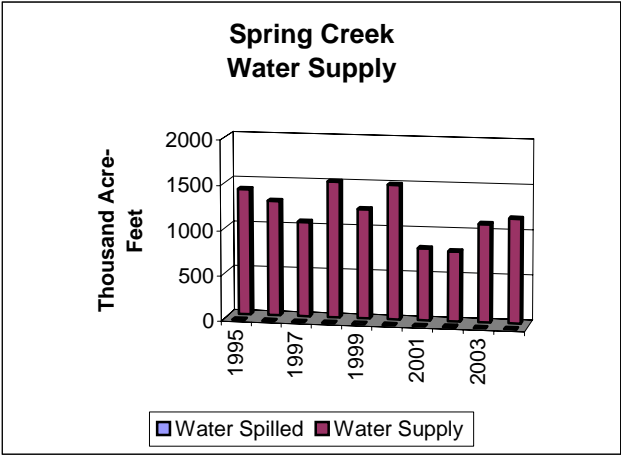
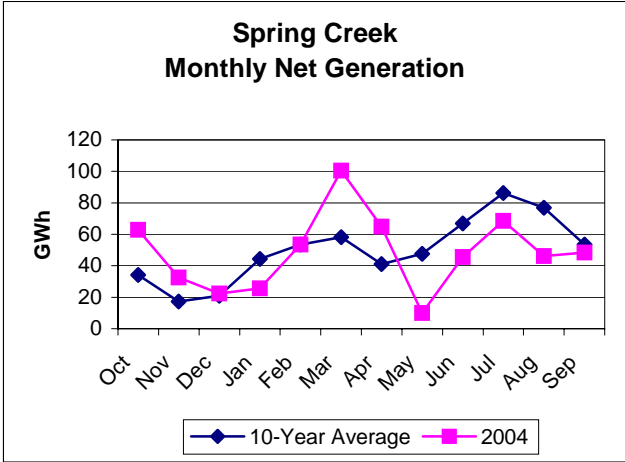
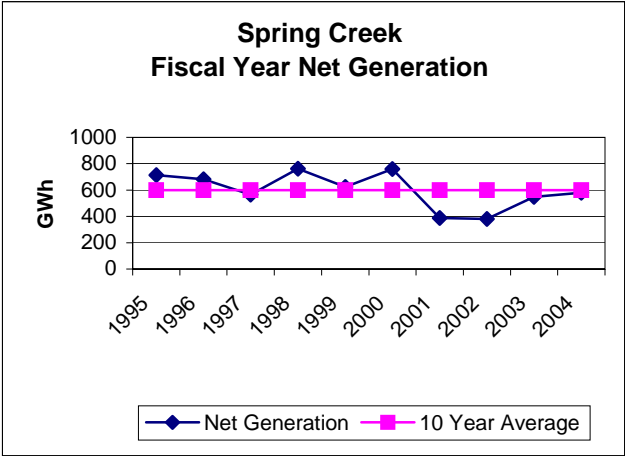
## Generators

Spring Creek Generators			
Existing Number and Capacity			
Unit #	Original Capacity	Capacity Increased	Present Capacity
1	75,000	15,000	90,000
2	75,000	15,000	90,000
2 Units	150,000	30,000	180,000

The maximum operational capacity is 190,000 kW

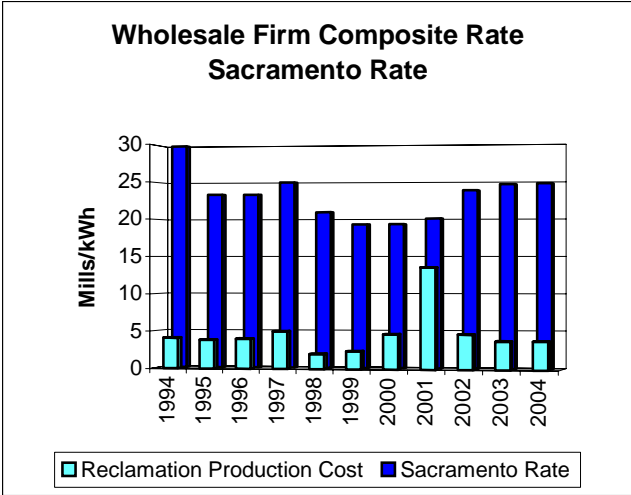
**Spring Creek Powerplant  
100-500 MW**

**Generation**

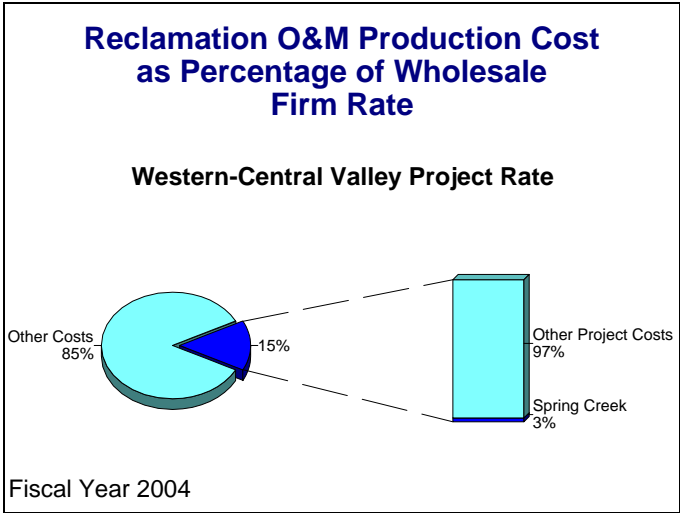


**Prime Laboratory Benchmarks**

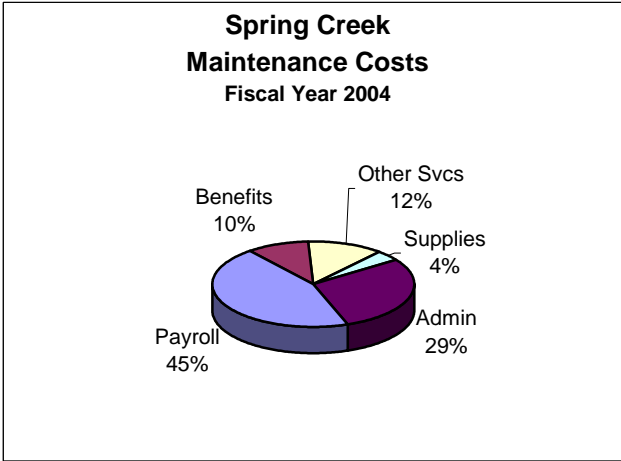
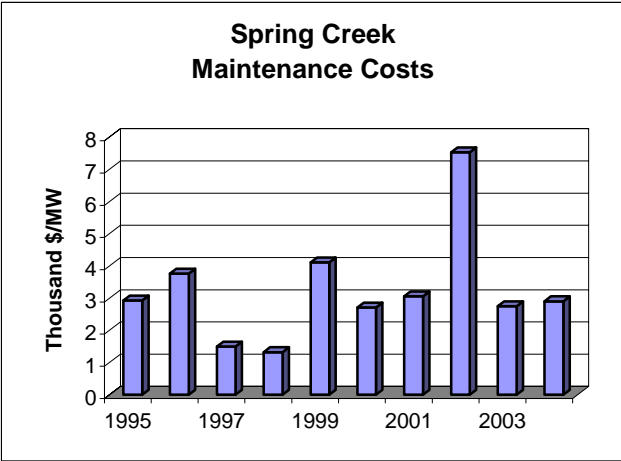
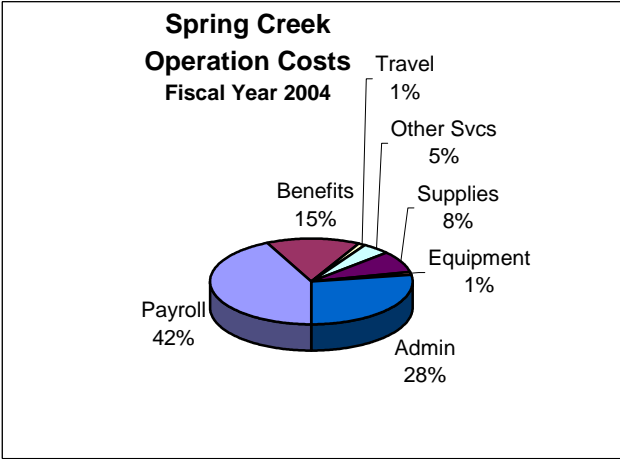
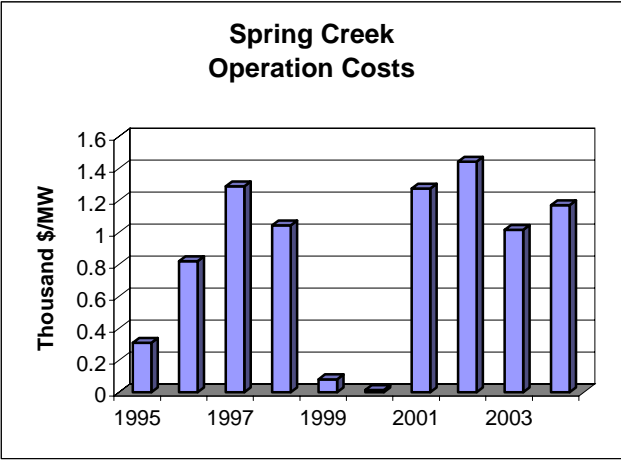
**Benchmark 1  
Wholesale Firm Rate**



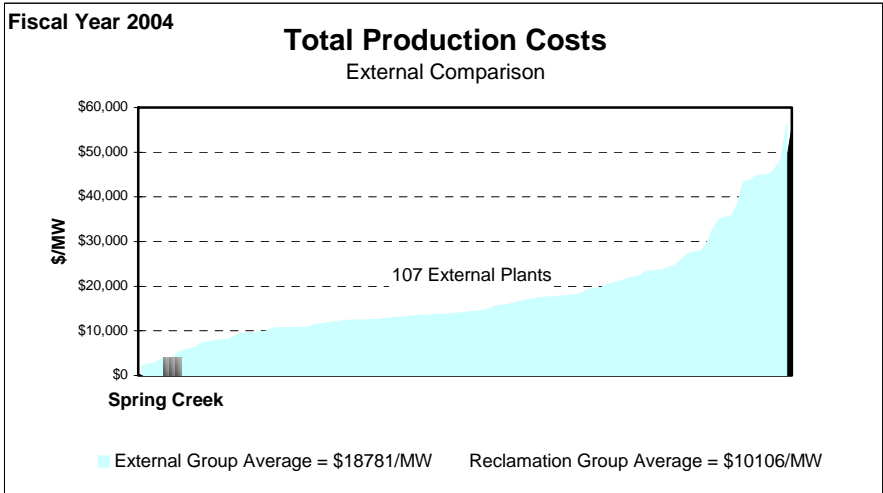
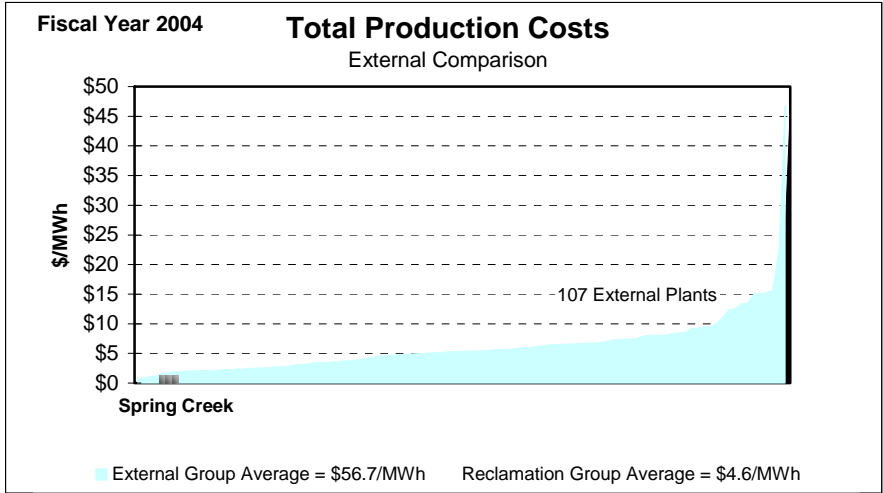
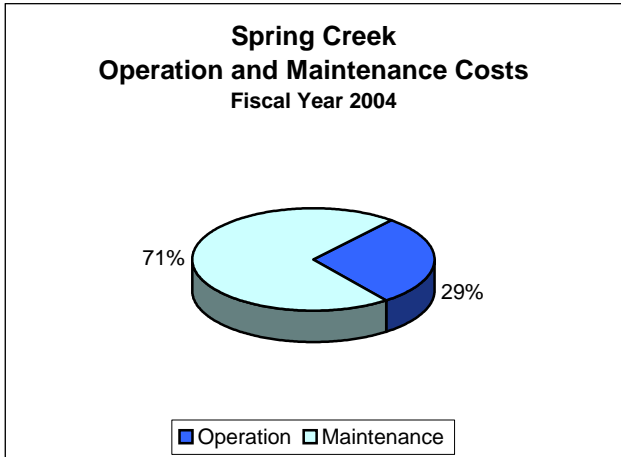
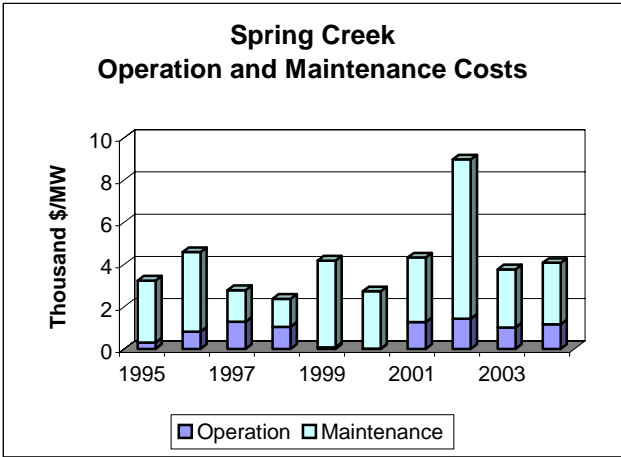
**Benchmark 2  
Reclamation's Production Cost as Percentage of Wholesale Firm Rate**



Benchmark 3  
Production Cost

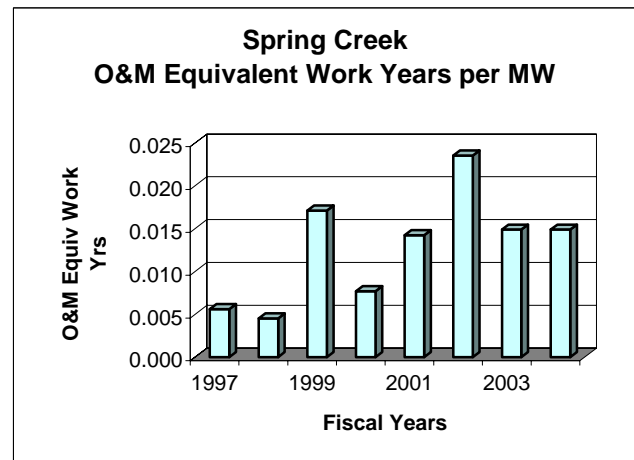
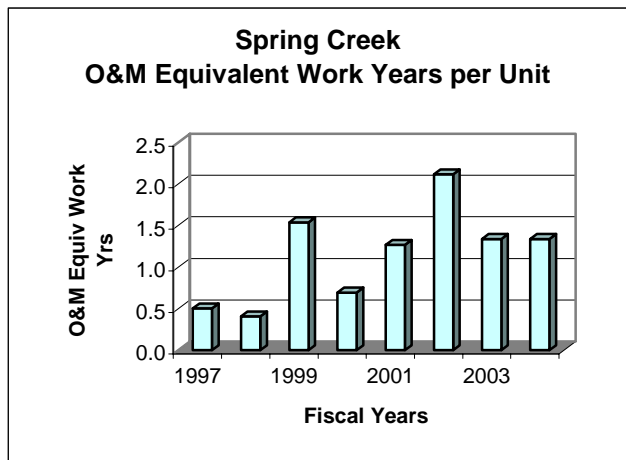
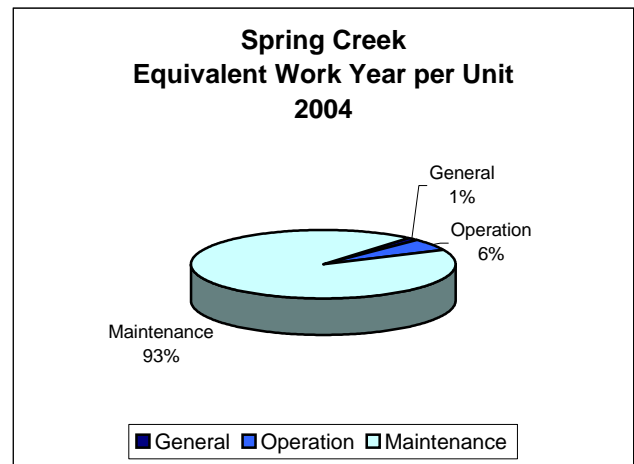
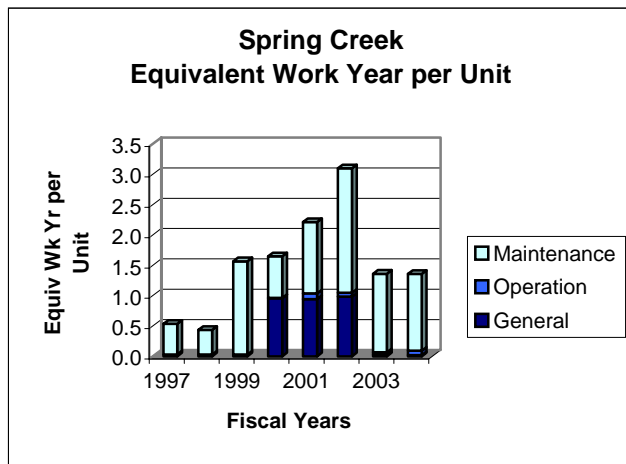


**Benchmark 3  
Production Cost**

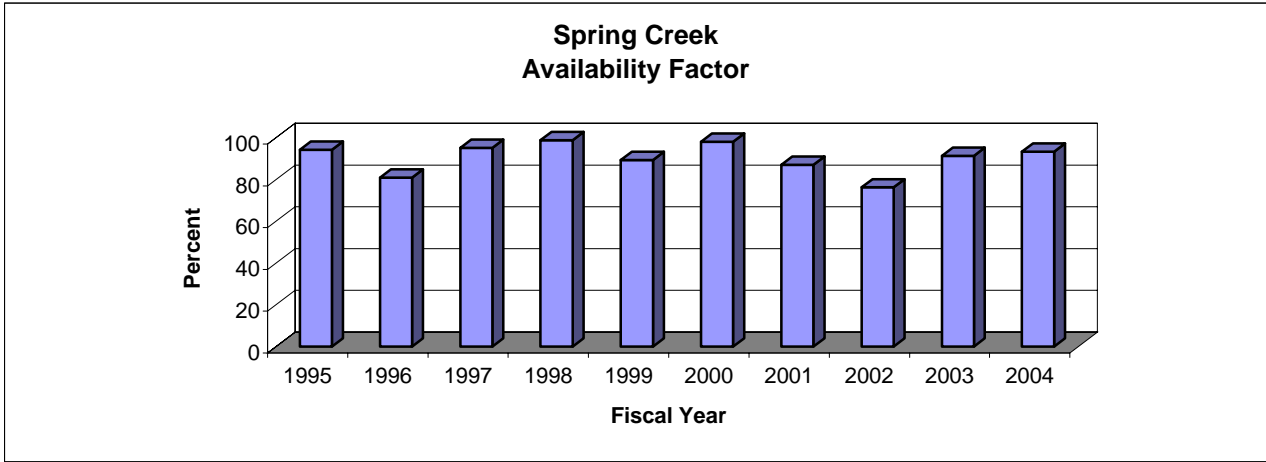


**Benchmark 4  
Workforce Deployment**

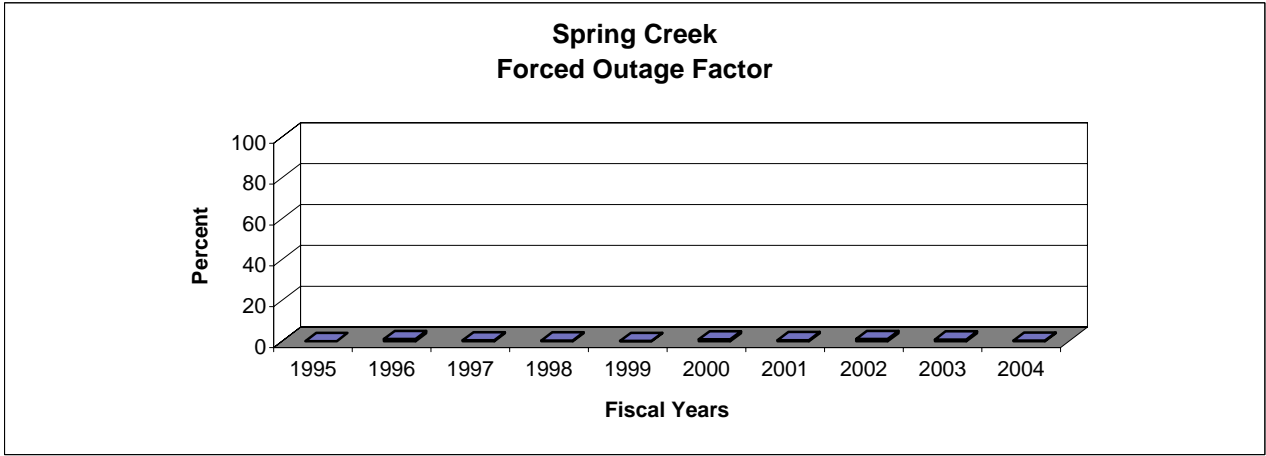
<b>Spring Creek 2004 Equivalent Work Year Levels</b>						
	<b>Equiv Work Year Charged to Powerplant</b>	<b>Leave Additive</b>	<b>Denver and Washington Equiv Work Year Additive</b>	<b>Total Equiv Work Year Allocated to Powerplant</b>	<b>Total Equiv Work Year per Generating Unit</b>	<b>Total Equiv Work Year per Megawatt</b>
General	0.00	0.00	0.03	0.03	0.02	0.00
Operation	0.14	0.02	0.00	0.15	0.08	0.00
Maintenance	2.26	0.27	0.00	2.53	1.26	0.01
Total Staffing	2.40	0.28	0.03	2.71	1.36	0.02



**Benchmark 5  
Availability Factor**

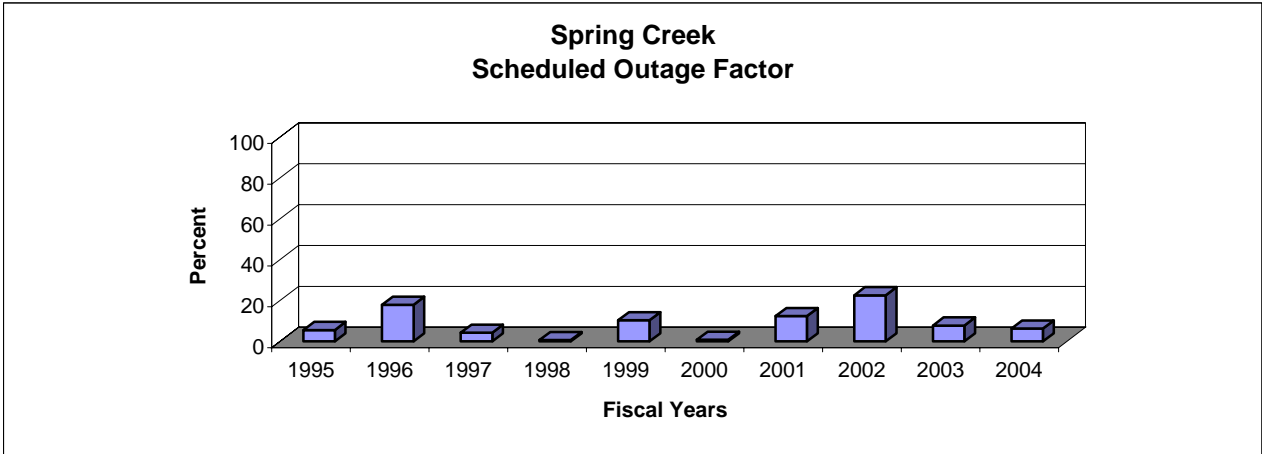


**Benchmark 6  
Forced Outage Factor**



FY-94 - Unit breaker failed

**Benchmark 7  
Scheduled Outage Factor**

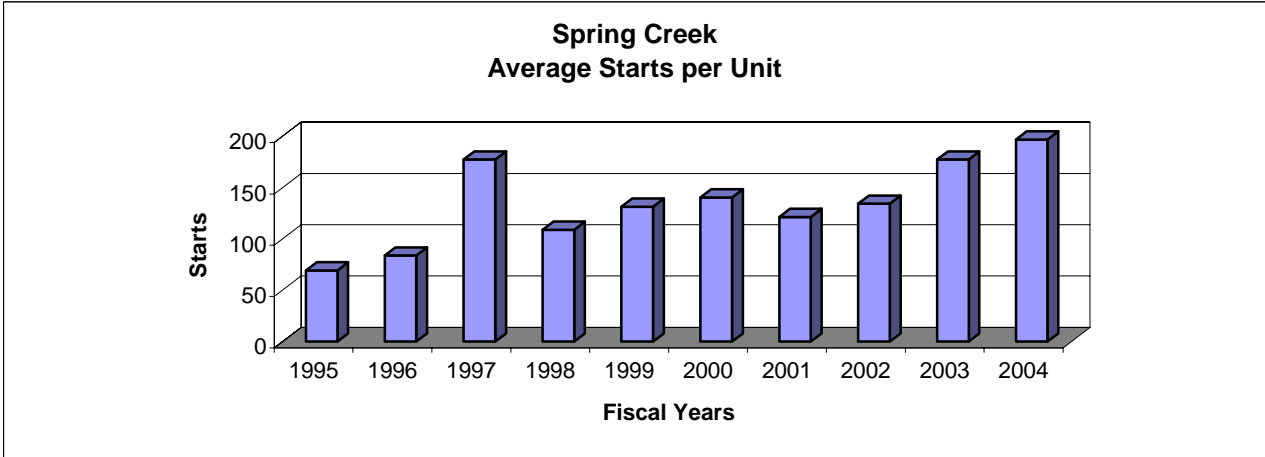


FY-96 – Extended maintenance

FY-01 – Re-gasketed transformers

FY-01 and FY-02 – Re-gasketed transformers and installation of penstock flow meters.

**Starts**





**Spring Creek Powerplant  
100-500 MW**

<b>Benchmark Data Comparison</b>					
<b>Fiscal Year 2004</b>	<b>Spring Creek Powerplant</b>	<b>Reclamation Average 100-500 MW Group</b>	<b>Total Reclamation Average</b>	<b>Industry Average</b>	<b>Best Performers</b>
<b>Wholesale Firm Rate Mills/kWh</b>	24.6	Not Applicable	*21.06	Not Available	Not Available
<b>Production Cost as Percentage of Wholesale Firm Rate</b>	0.4%	Not Applicable	13.5%	Not Applicable	Not Applicable
<b>O&amp;M Cost \$/MWh</b>	1.26	3.59	2.77	56.68	1.23
<b>O&amp;M Costs \$/MW</b>	4,078.37	8,960.28	7,316.97	18,781.34	2,951.22
<b>O&amp;M Equip Work Year per MW</b>	0.01	0.05	0.04	Not Available	0.000
<b>Availability Factor</b>	93.4	91.0	86.9	**89.2	99.97
<b>Forced Outage Factor</b>	0.3	0.6	0.7	**1.9	0.00
<b>Scheduled Outage Factor</b>	6.2	8.4	12.4	**8.9	0.02

\*Weighted by Net Generation

\*\*2003 NERC Average