

Palisades Powerplant Palisades Project

Ancillary Services

Palisades Ancillary Services

Spinning Reserve	Yes
Non-Spinning Reserve	Yes
Replacement Reserve	Yes
Regulation/Load Following	Yes
Black Start	Yes
Voltage Support	Yes

Generators

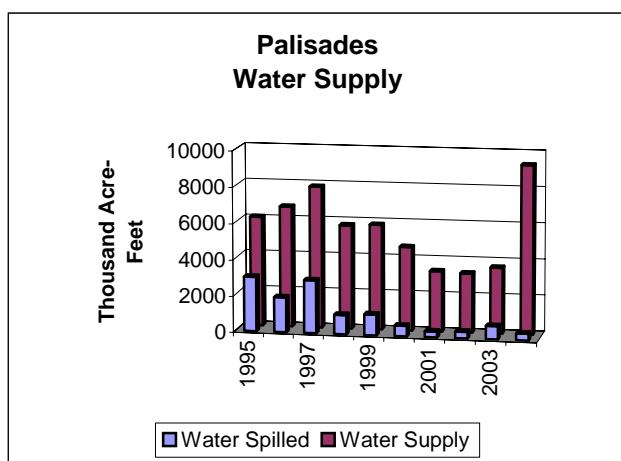
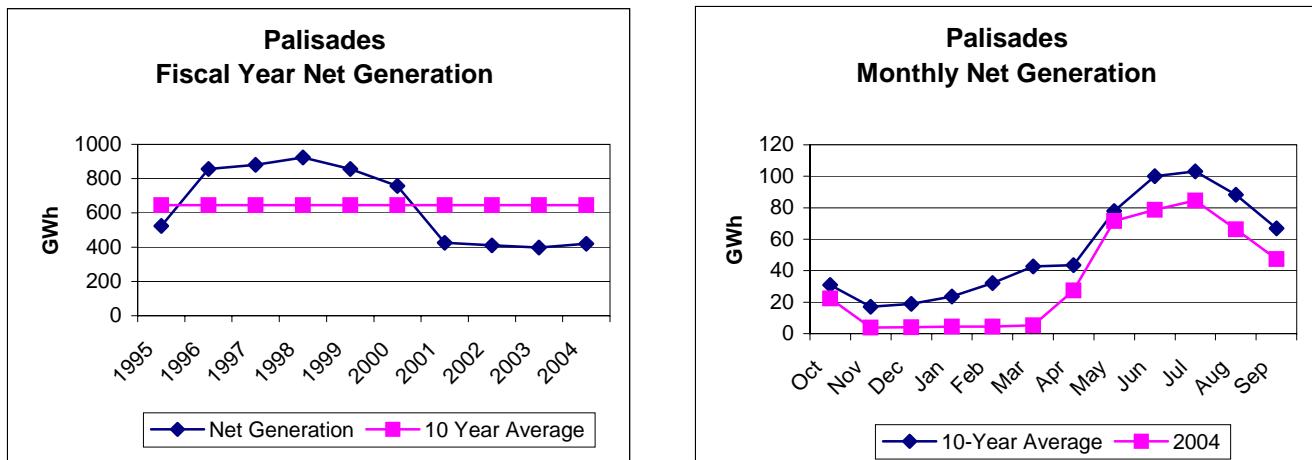
Palisades Generators

Existing Number and Capacity

Unit #	Original Nameplate (kW)	Increased (kW)	Present Nameplate (kW)
1	28,500	15,641	44,141
2	28,500	15,641	44,141
3	28,500	15,641	44,141
4	28,500	15,641	44,141
4 Units	114,000	62,564	176,564

Palisades Powerplant
100-500 MW

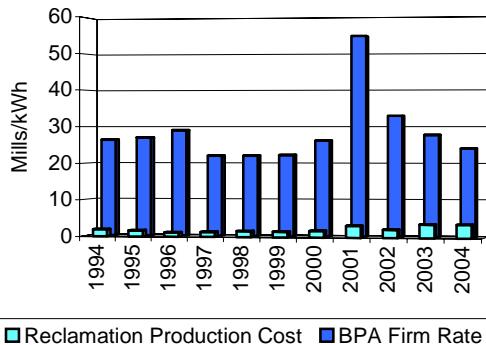
Generation



Prime Laboratory Benchmarks

Benchmark 1
Wholesale Firm Rate

Wholesale Firm Composite Rate
Bonneville Power Administration Rate

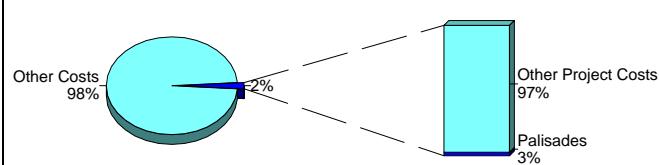


Benchmark 2

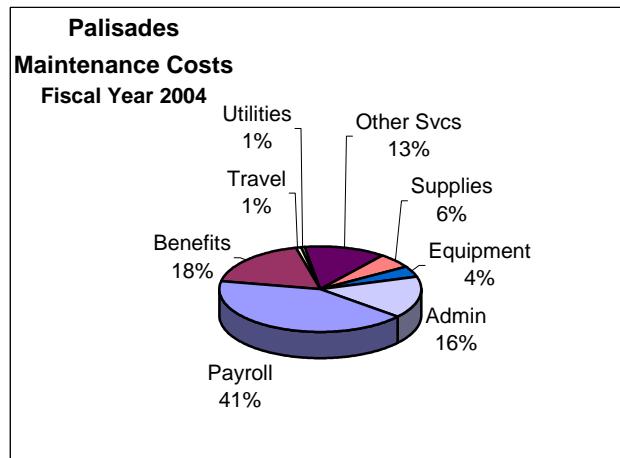
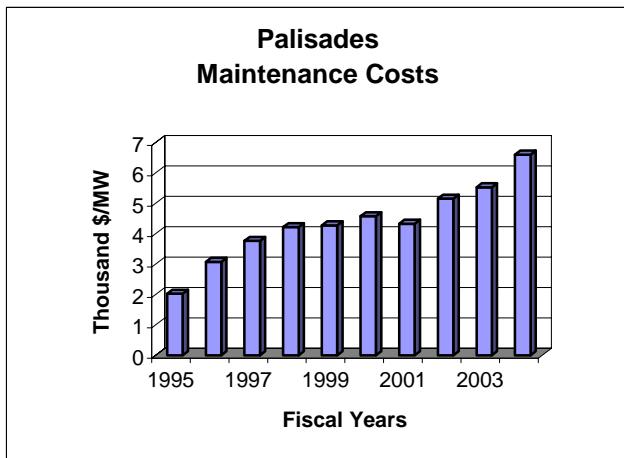
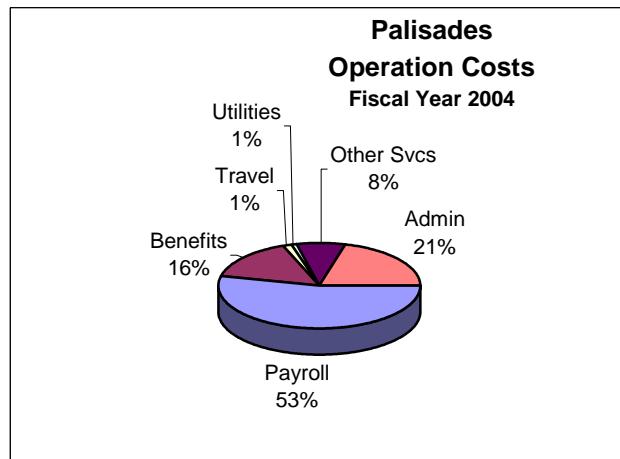
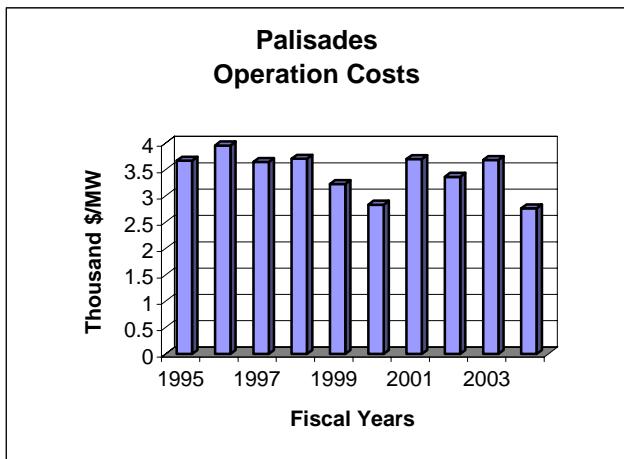
Reclamation's Production Cost as Percentage of Wholesale Firm Rate

**Reclamation O&M Production Cost
as Percentage of Wholesale
Firm Rate**

Bonneville Power Admin Project Rate

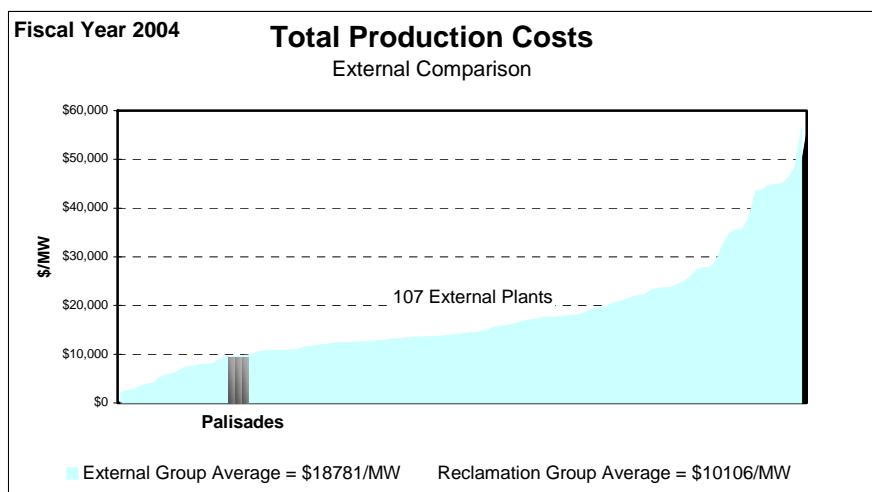
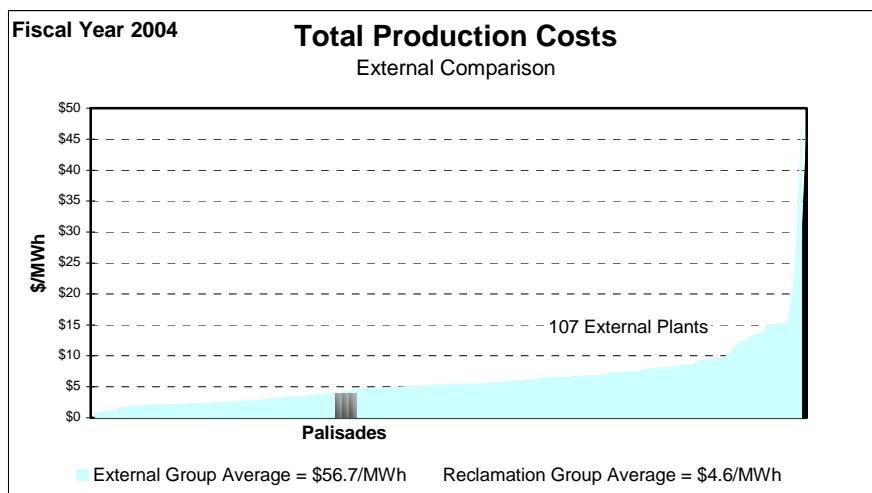
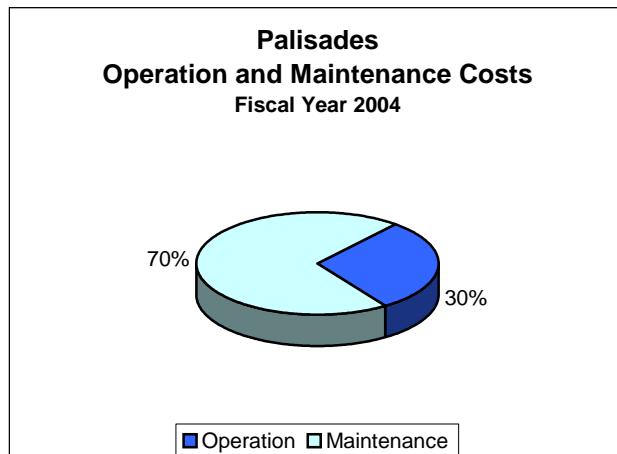
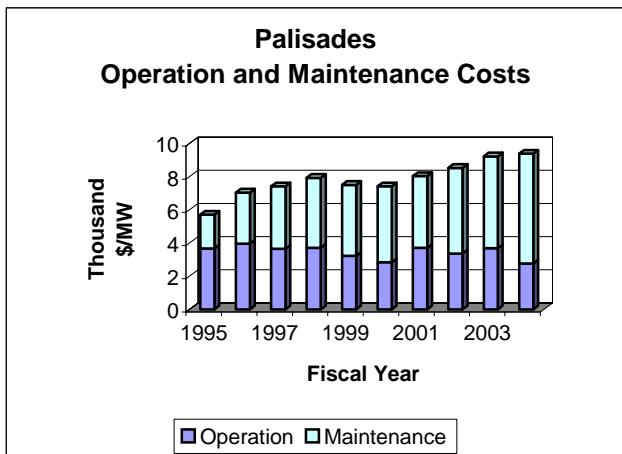


Benchmark 3
Production Cost



Palisades Powerplant
100-500 MW

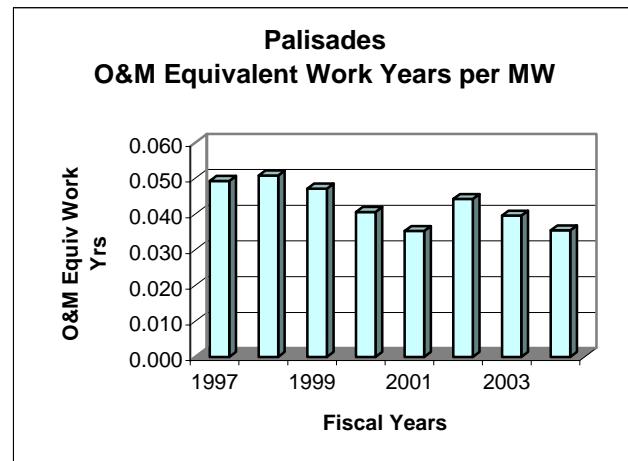
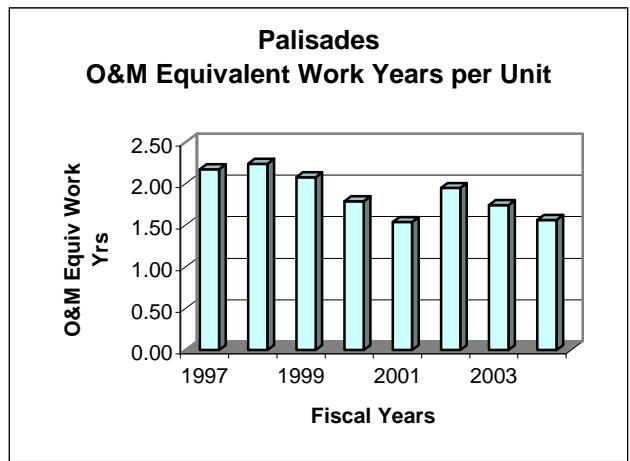
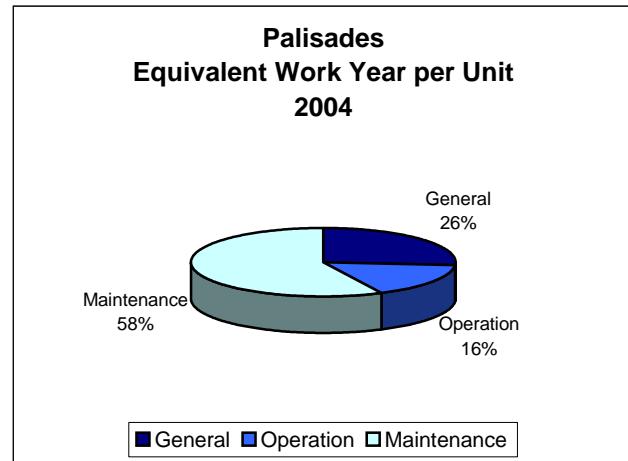
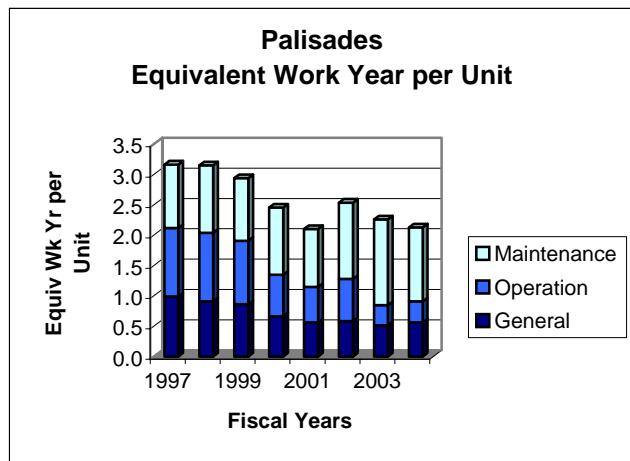
Benchmark 3
Production Cost



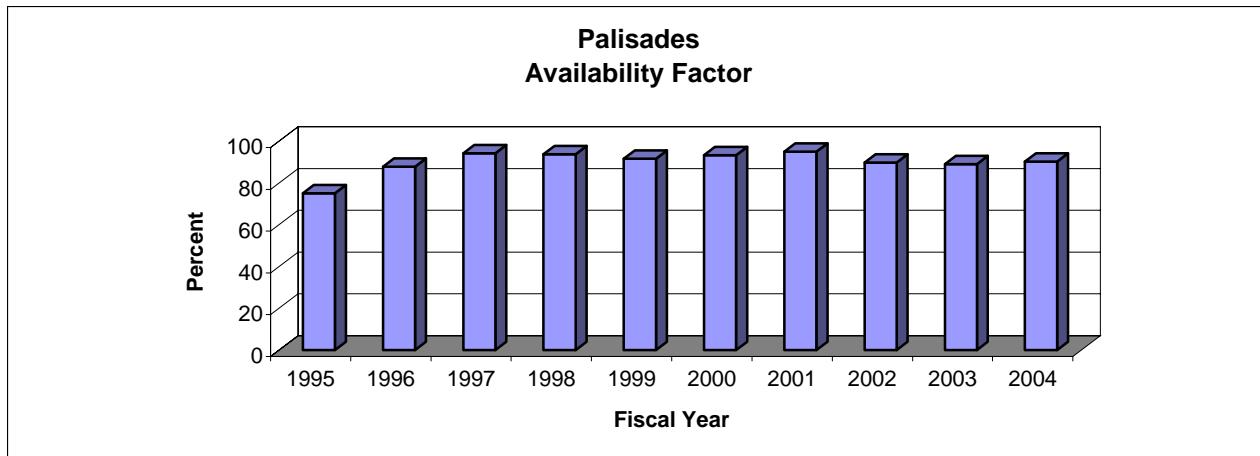
Benchmark 4
Workforce Deployment

Palisades 2004 Equivalent Work Year Levels

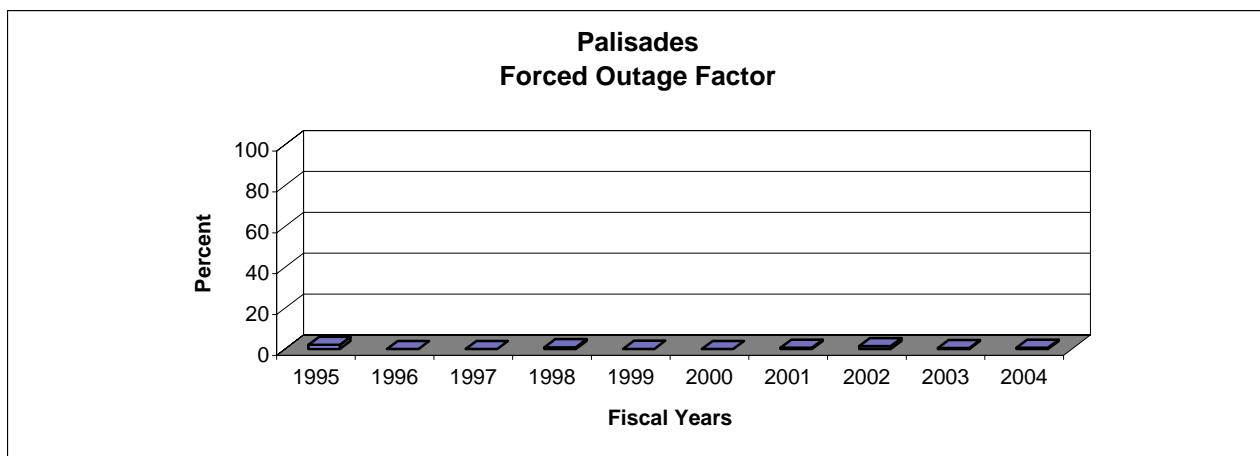
	Equiv Work Year Charged to Powerplant	Leave Additive	Denver and Washington Equiv Work Year Additive	Total Equiv Work Year Allocated to Powerplant	Total Equiv Work Year per Generating Unit	Total Equiv Work Year per Megawatt
General	1.97	0.21	0.07	2.25	0.56	0.01
Operation	1.25	0.13	0.00	1.38	0.35	0.01
Maintenance	4.41	0.47	0.00	4.87	1.22	0.03
Total Staffing	7.63	0.81	0.07	8.51	2.13	0.05



Benchmark 5
Availability Factor

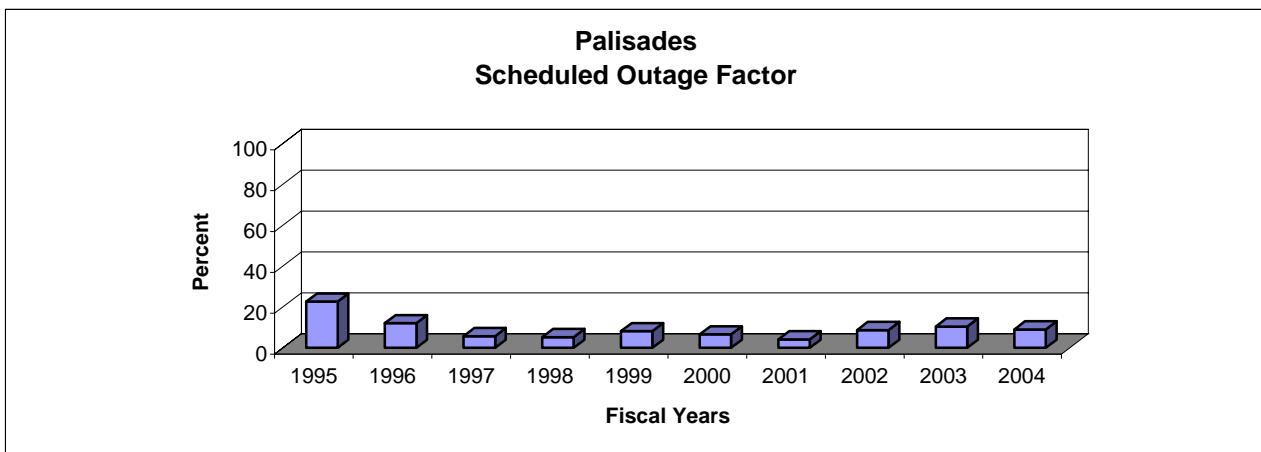


Benchmark 6
Forced Outage Factor

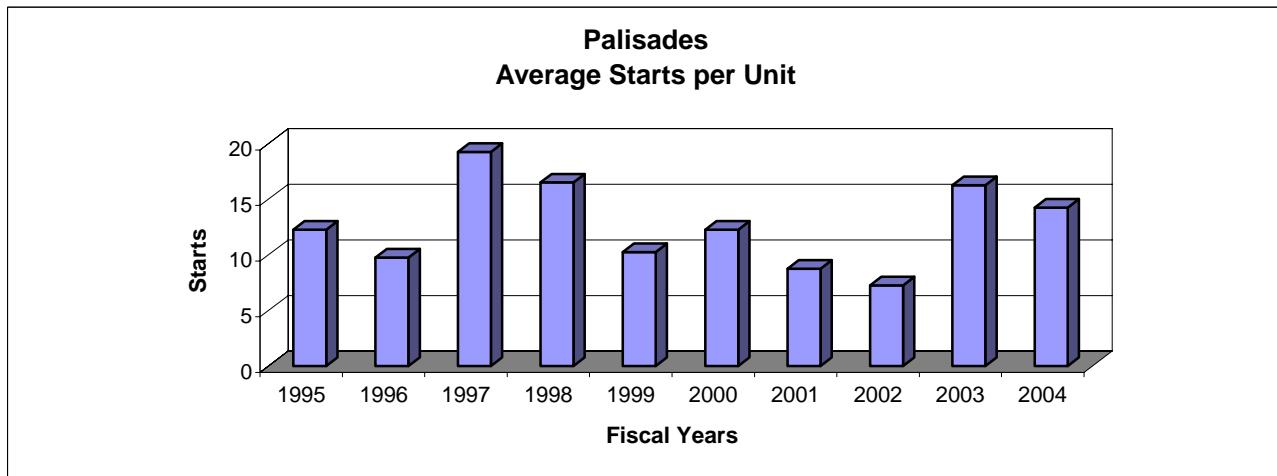


Palisades Powerplant
100-500 MW

Benchmark 7
Scheduled Outage Factor



Starts



Palisades Powerplant
100-500 MW

Benchmark Data Comparison					
Fiscal Year 2004	Palisades Powerplant	Reclamation Average 100-500 MW Group	Total Reclamation Average	Industry Average	Best Performers
Wholesale Firm Rate Mills/kWh	27.7	Not Applicable	*21.06	Not Available	Not Available
Production Cost as Percentage of Wholesale Firm Rate	0.06%	Not Applicable	13.5%	Not Applicable	Not Applicable
O&M Cost \$/MWh	3.93	3.59	2.77	56.68	1.23
O&M Costs \$/MW	9,368.48	8,960.28	7,316.97	18,781.34	2,951.22
O&M Equiv Work Year per MW	0.04	0.05	0.04	Not Available	0.00
Availability Factor	90.3	91.0	86.9	**89.2	99.97
Forced Outage Factor	0.7	0.6	0.7	**1.9	0.00
Scheduled Outage Factor	9.0	8.4	12.4	**8.9	0.02

*Weighted by Net Generation

**2003 NERC Average