

Hungry Horse Powerplant Hungry Horse Project

Ancillary Services

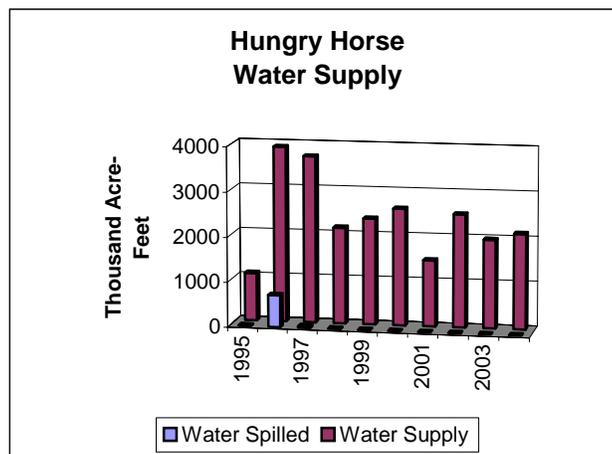
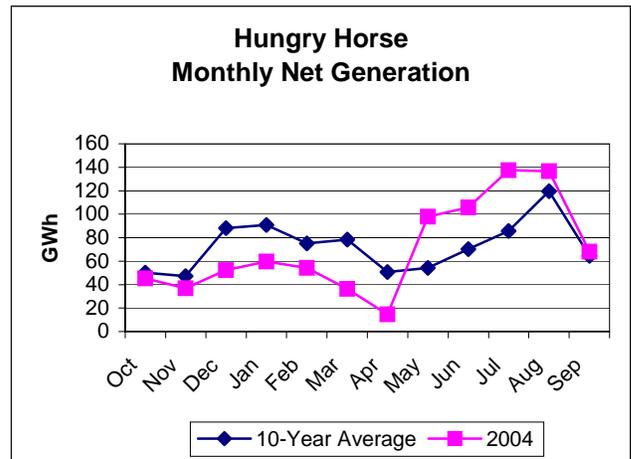
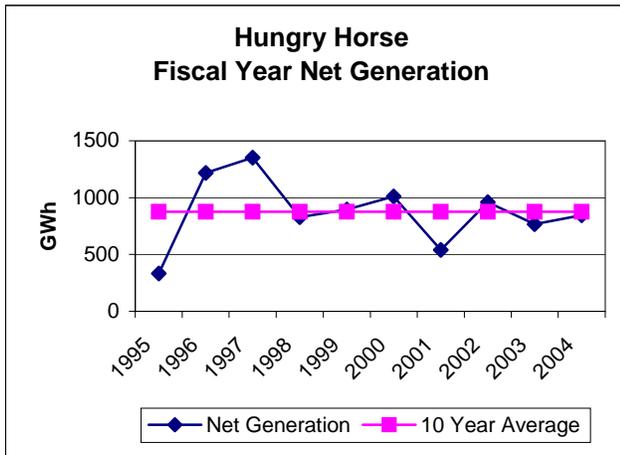
Hungry Horse Ancillary Services	
Spinning Reserve	Yes
Non-Spinning Reserve	Yes
Replacement Reserve	Yes
Regulation/Load Following	Yes
Black Start	Yes
Voltage Support	Yes

Generators

Hungry Horse Generators			
Unit #	Original Nameplate (kW)	Increased (kW)	Present Nameplate (kW)
1	71,250	35,750	107,000
2	71,250	35,750	107,000
3	71,250	35,750	107,000
4	71,250	35,750	107,000
4 Units	285,000	143,000	428,000

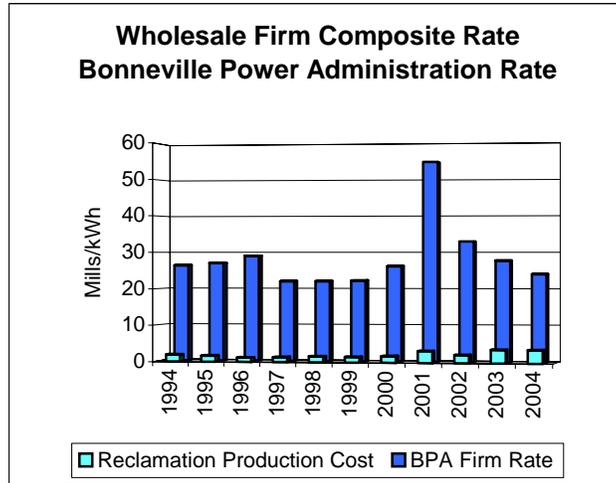
**Hungry Horse Powerplant
100-500 MW**

Generation

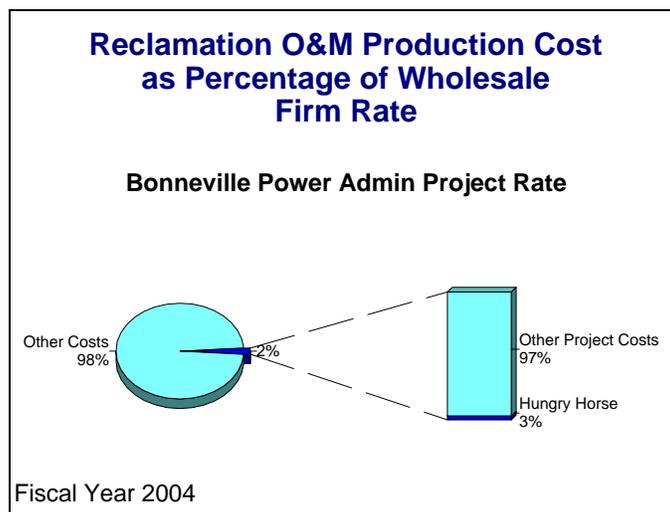


Prime Laboratory Benchmarks

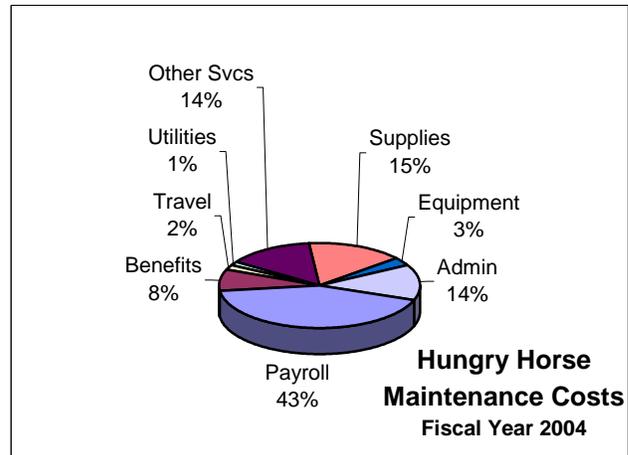
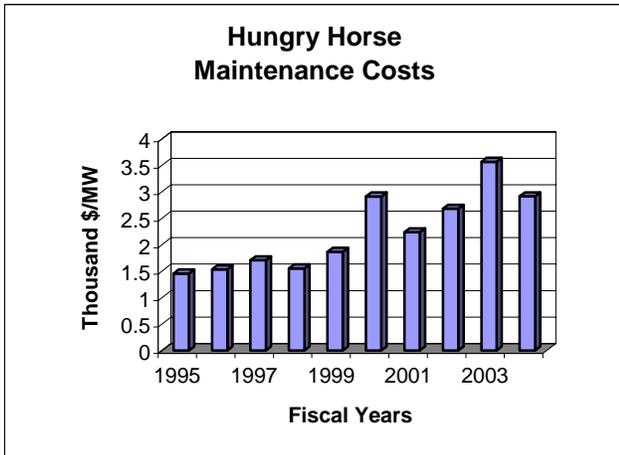
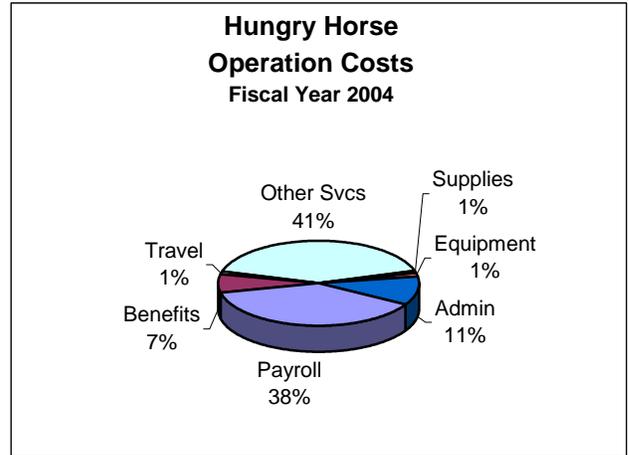
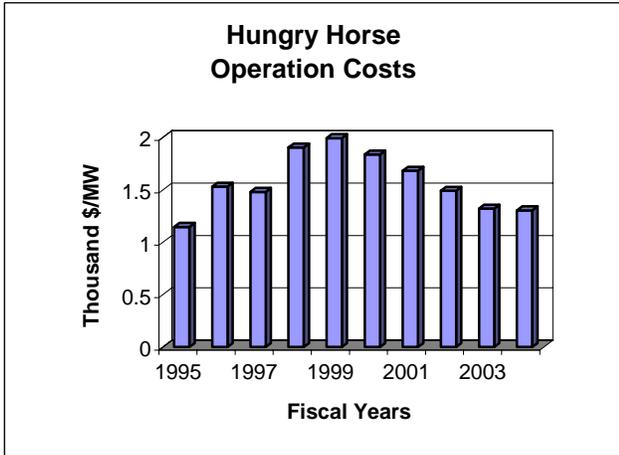
**Benchmark 1
Wholesale Firm Rate**



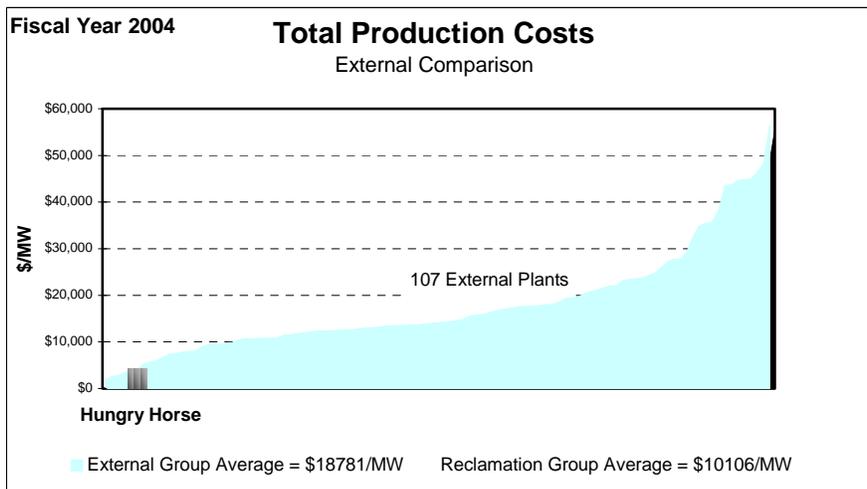
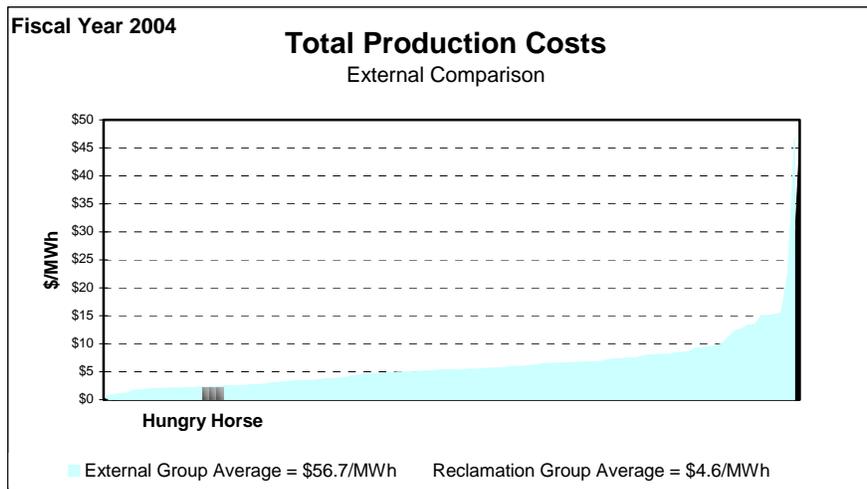
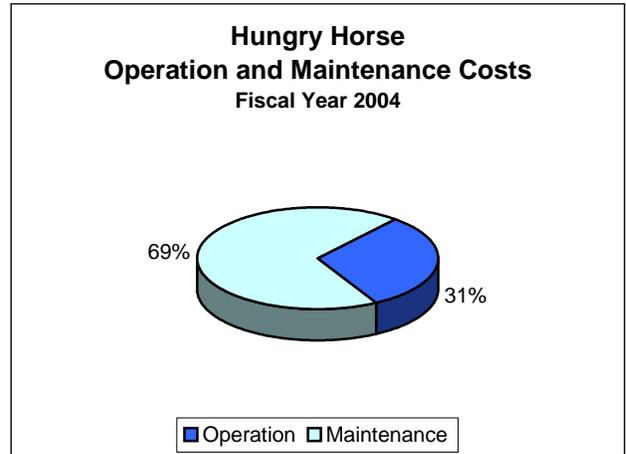
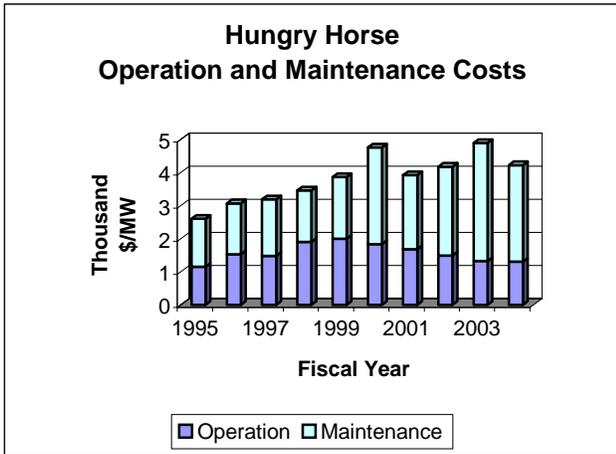
**Benchmark 2
Reclamation's Production Cost as Percentage of Wholesale Firm Rate**



**Benchmark 3
Production Cost**

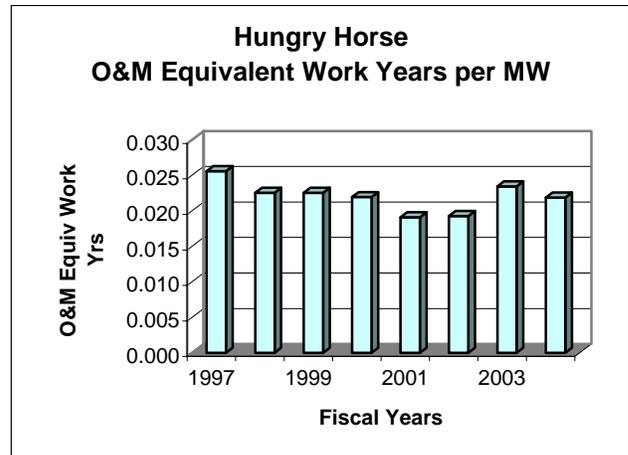
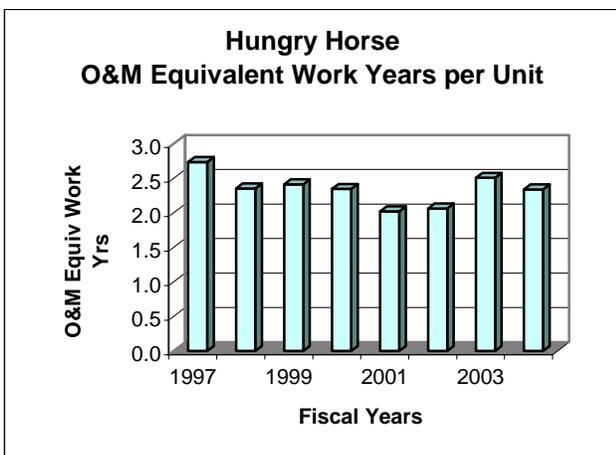
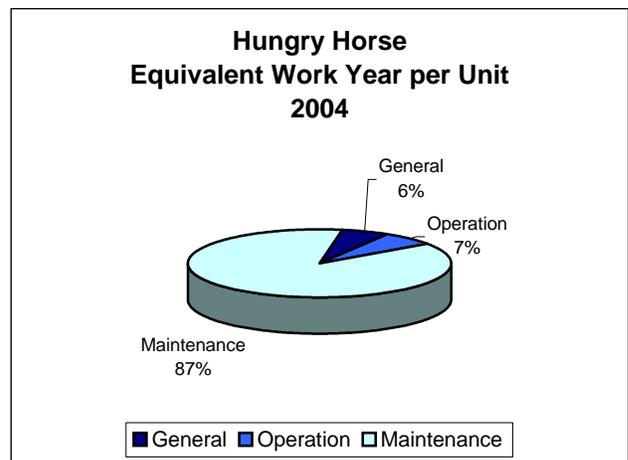
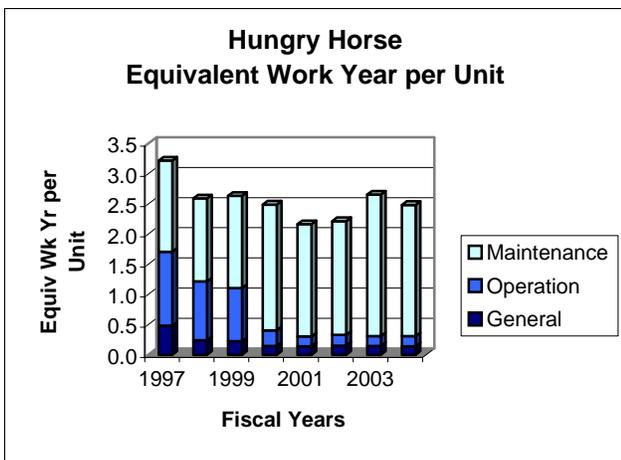


**Benchmark 3
Production Cost**

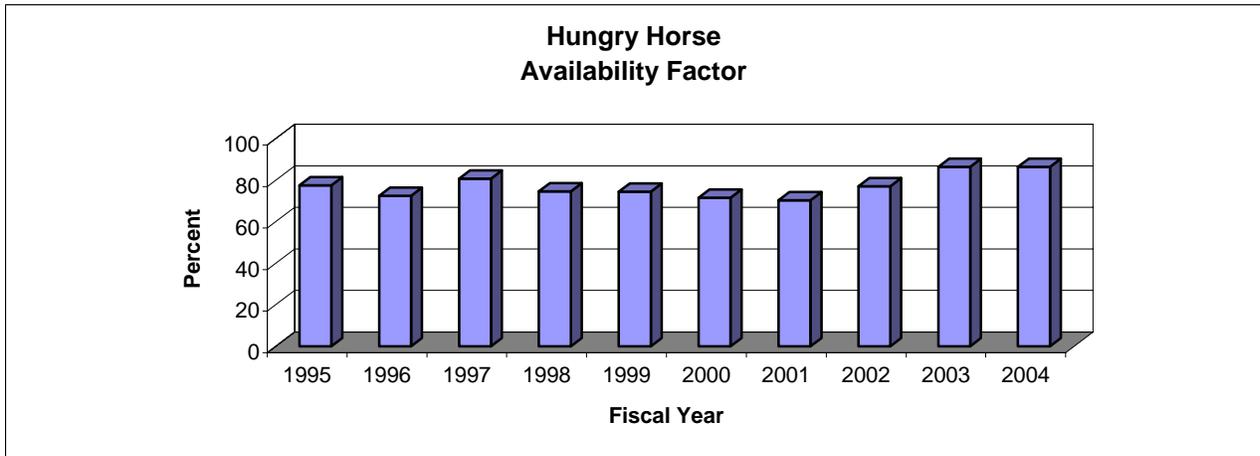


**Benchmark 4
Workforce Deployment**

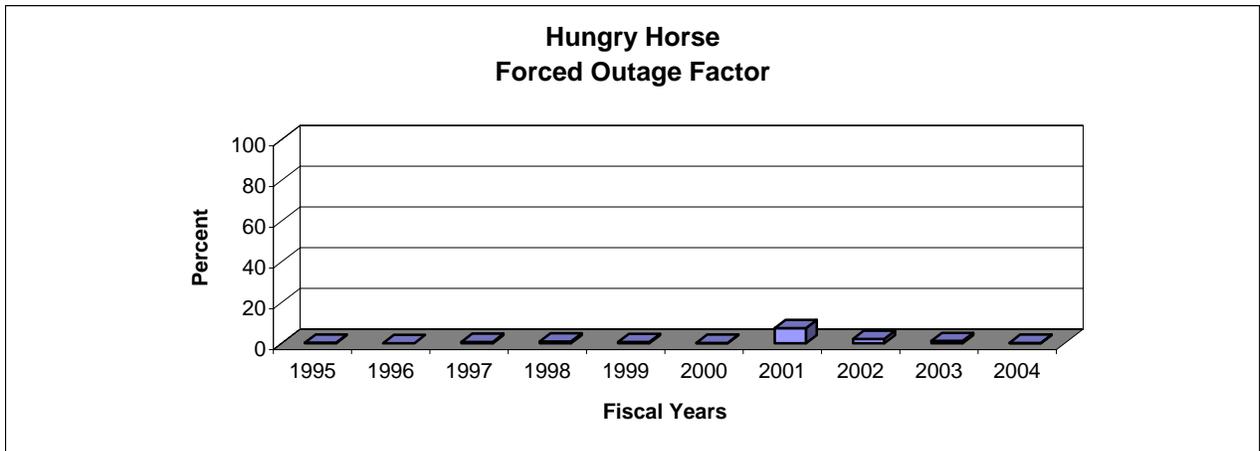
Hungry Horse 2004 Equivalent Work Year Levels						
	Equiv Work Year Charged to Powerplant	Leave Additive	Denver and Washington Equiv Work Year Additive	Total Equiv Work Year Allocated to Powerplant	Total Equiv Work Year per Generating Unit	Total Equiv Work Year per Megawatt
General	0.45	0.05	0.07	0.57	0.14	0.00
Operation	0.60	0.06	0.00	0.66	0.17	0.00
Maintenance	7.86	0.83	0.00	8.70	2.17	0.02
Total Staffing	8.92	0.94	0.07	9.93	2.48	0.02



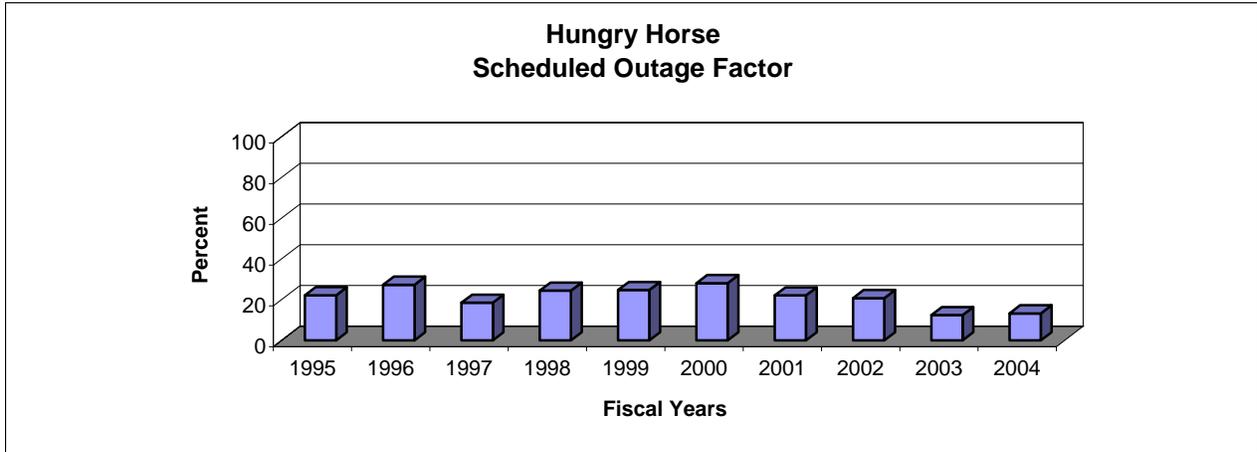
**Benchmark 5
Availability Factor**



**Benchmark 6
Forced Outage Factor**



**Benchmark 7
Scheduled Outage Factor**

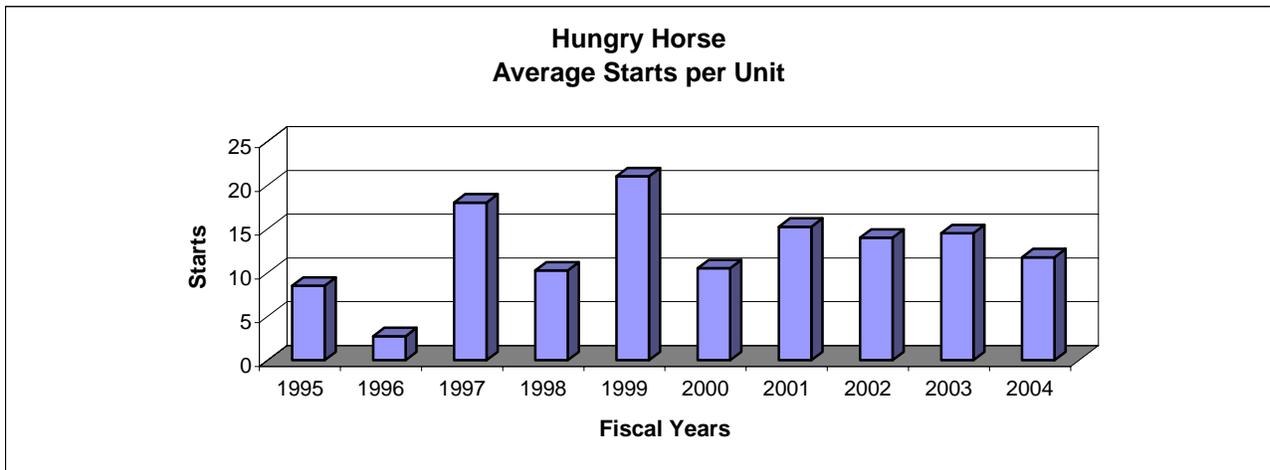


FY-94 - Rebuild of fixed wheel gate and automation work.

FY-95 - Automation work and installation of withdrawal system on the unit intakes.

Y-96, FY-97, FY-98 - Automation work

Starts



**Hungry Horse Powerplant
100-500 MW**

Benchmark Data Comparison					
Fiscal Year 2004	Hungry Horse 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	2.14	3.59	2.77	56.68	1.23
O&M Costs \$/MW	4,219.28	8,960.28	7,316.97	18,781.34	2,951.22
O&M Equip Work Year per MW	0.02	0.05	0.04	Not Available	0.000
Availability Factor	86.5	91.0	86.9	**89.2	99.97
Forced Outage Factor	0.3	0.6	0.7	**1.9	0.00
Scheduled Outage Factor	13.2	8.4	12.4	**8.9	0.02

*Weighted by Net Generation

**2003 NERC Average