

Glendo Powerplant Pick-Sloan Missouri Basin Program

Ancillary Services

Glendo Ancillary Services

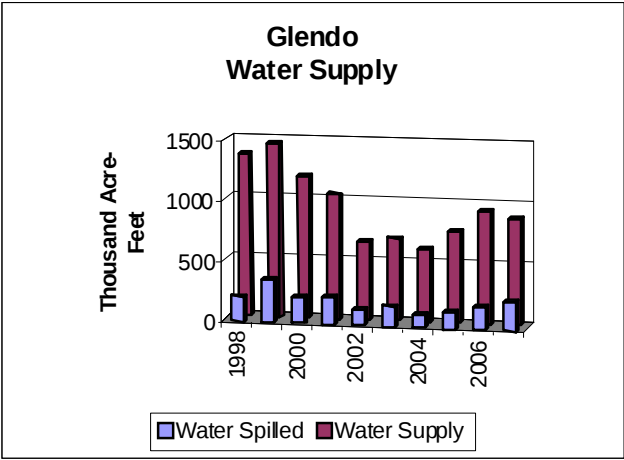
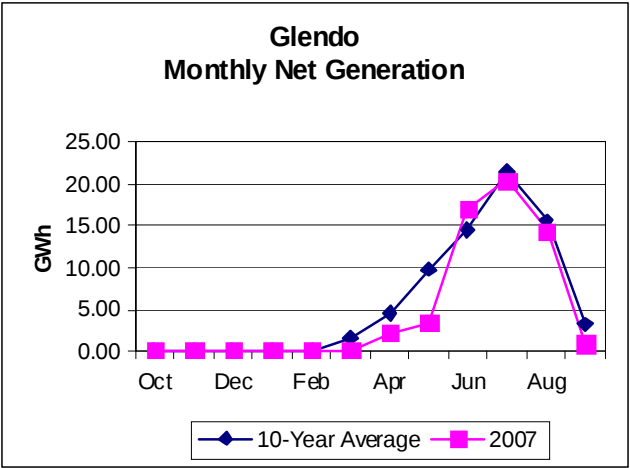
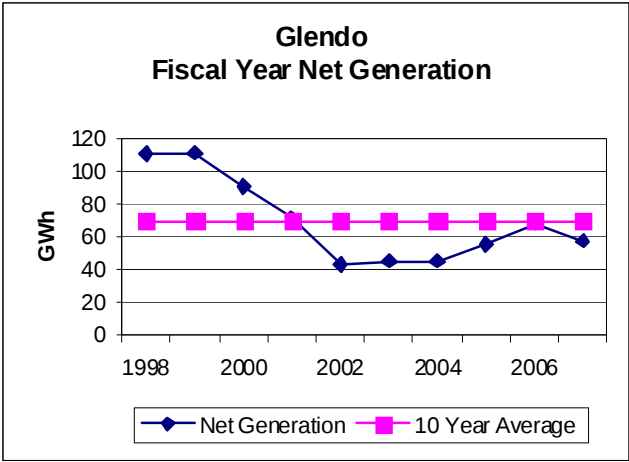
Spinning Reserve	No
Non-Spinning Reserve	No
Replacement Reserve	Yes
Regulation/Load Following	No
Black Start	No
Voltage Support	Yes

Generators

Glendo Generators			
Existing Number and Capacity			
Unit #	Original Capacity (kW)	Capacity Increased (kW)	Present Capacity (kW)
1	12,000	7,000	19,000
2	12,000	7,000	19,000
2 units	24,000	14,000	38,000

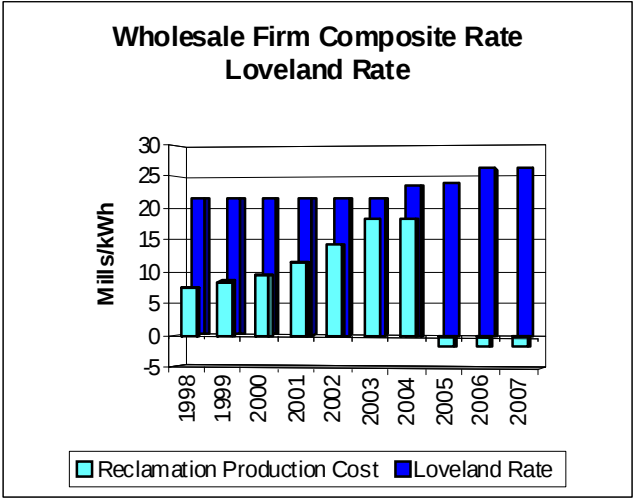
Glendo Powerplant
Seasonal

Generation

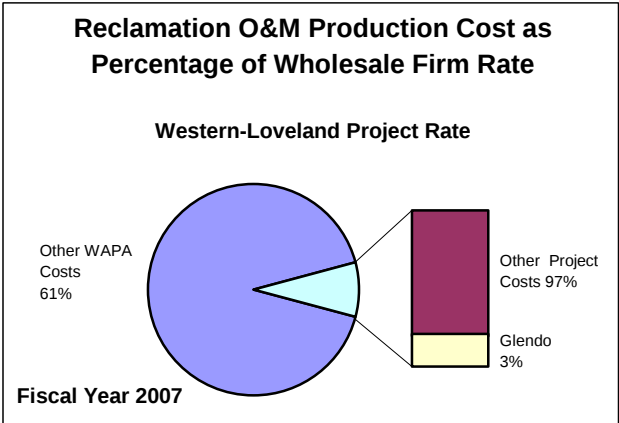


Prime Laboratory Benchmarks

Benchmark 1
Wholesale Firm Rate

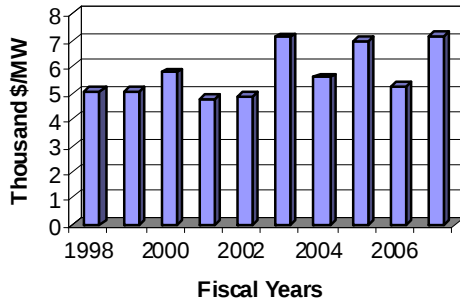


Benchmark 2
Reclamation's Production Costs as Percentage of Wholesale Firm Rate

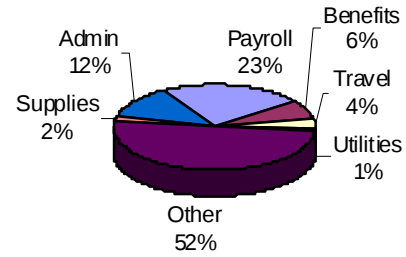


**Benchmark 3
Production Costs**

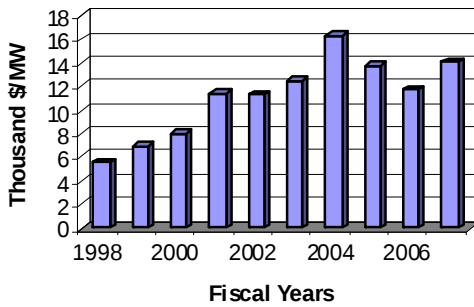
**Glendo
Operation Costs**



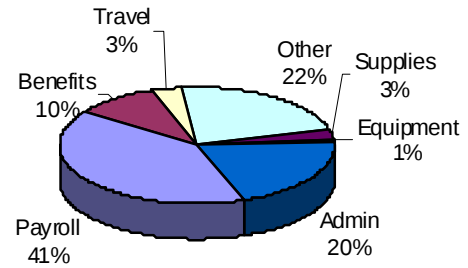
**Glendo
Operation Costs
Fiscal Year 2007**



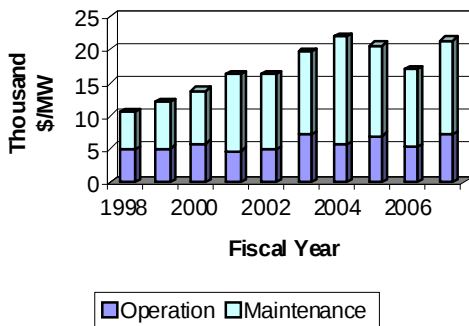
**Glendo
Maintenance Costs**



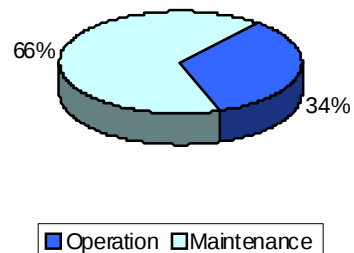
**Glendo
Maintenance Costs
Fiscal Year 2007**



**Glendo
Operation and Maintenance Costs**



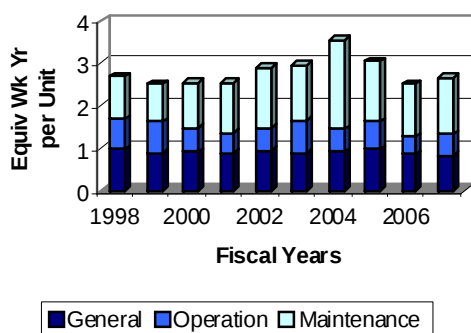
**Glendo
Operation and Maintenance Costs
Fiscal Year 2007**



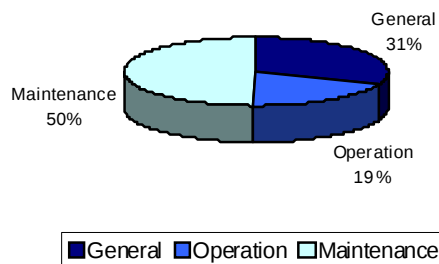
**Benchmark 4
Workforce Deployment**

Glendo FY 2007 Equivalent Work Staffing Year Levels						
	Equivalent Work Year Staffing Charged to Powerplant	Leave Additive	Denver and Washington Equivalent Work Year Staffing Additive	Total Equivalent Work Year Allocated to Powerplant	Total Equivalent Staffing Work Year per Generating Unit	Total Equivalent Work Year Staffing per Megawatt
General	1.47	0.17	0.04	1.68	0.84	0.04
Operation	0.90	0.10	0.00	1.00	0.50	0.03
Maintenance	2.38	0.27	0.00	2.65	1.33	0.07
Total Staffing	4.76	0.54	0.04	5.33	2.66	0.14

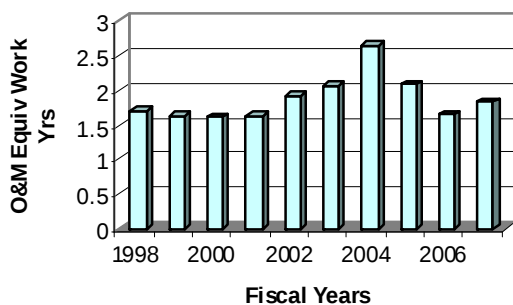
**Glendo
Equivalent Work Year per Unit**



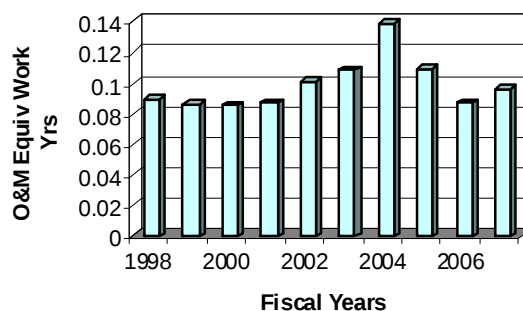
**Glendo
Equivalent Work Year per Unit
2007**



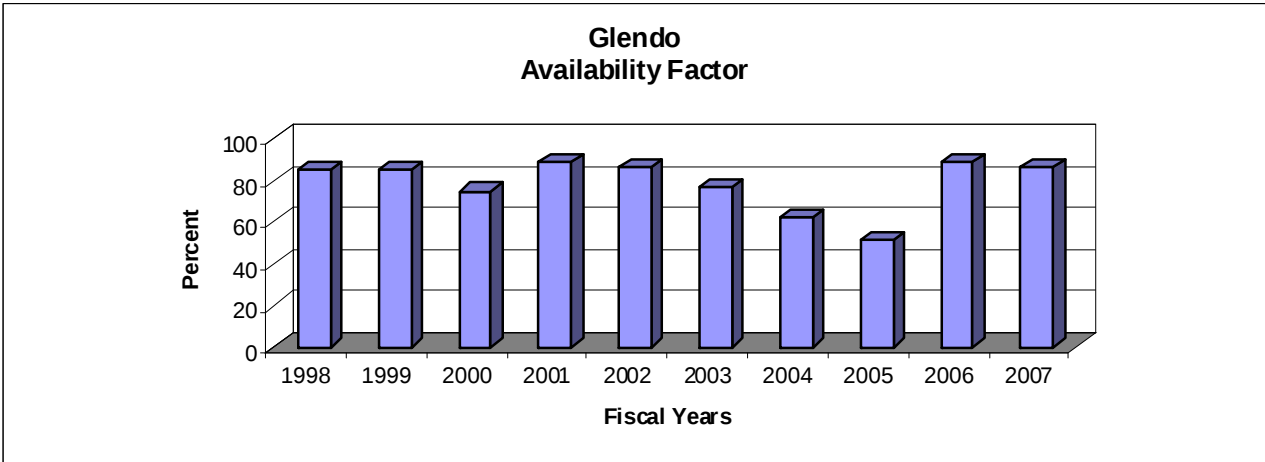
**Glendo
O&M Equivalent Work Years per Unit**



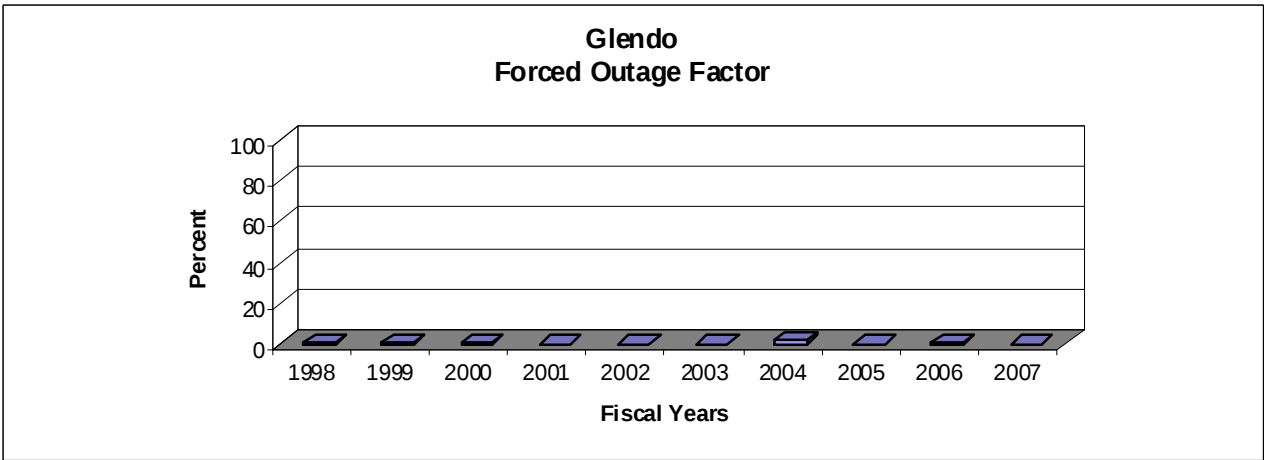
**Glendo
O&M Equivalent Work Years per MW**



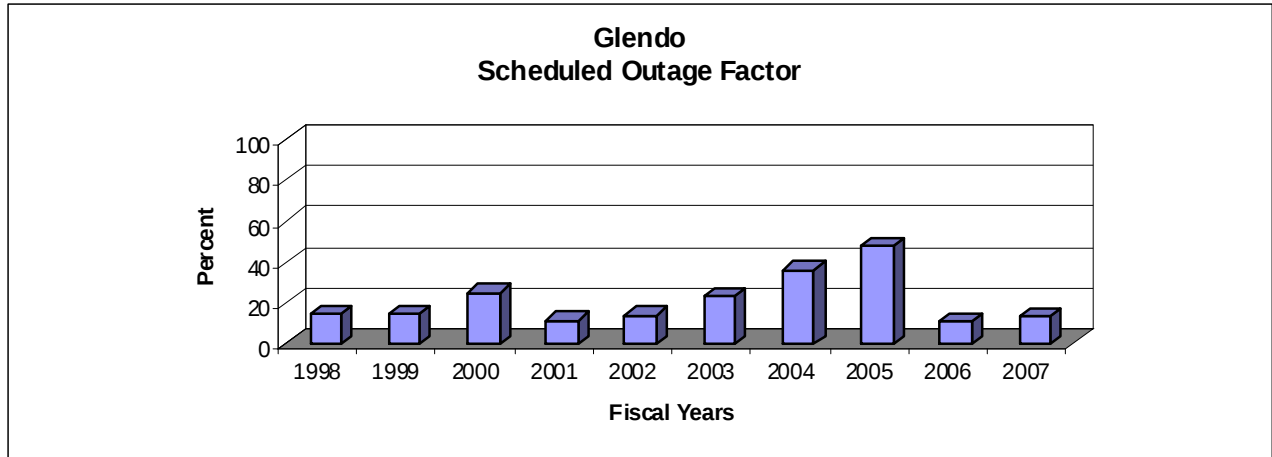
Benchmark 5
Plant Availability Factor



Benchmark 6
Plant Forced Outage Factor



**Benchmark 7
Plant Scheduled Outage Factor**

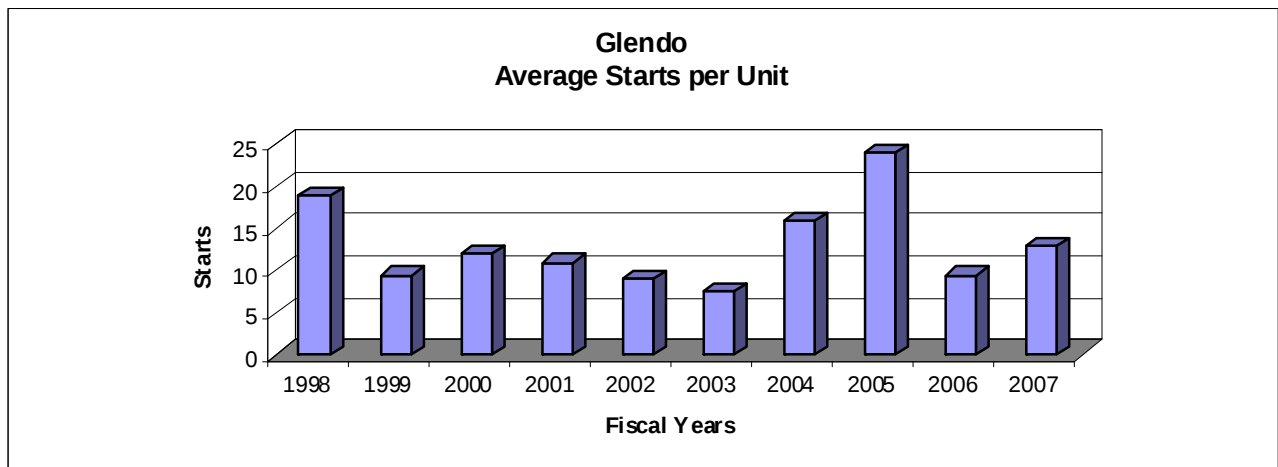


Extended maintenance done during winter shutdown.

FY-2003 – Unit 1 schedule outage extended for replacement of water service piping.

FY-2004 – Both unit governors were rebuilt; water service piping was replaced; and new digital generator temperature recorders were installed.

Unit Starts



Benchmark Data Comparison				
Fiscal Year 2007	Glendo	Total Reclamation Average	Industry Average	Best Performers
Wholesale Firm Rate Mills/kWh	23.9	*22.45	Not Available	Not Available
Production Cost as Percentage of Wholesale Firm Rate	1.84%	12.1%	Not Applicable	Not Applicable
O&M Cost \$/MWh	13.98	2.76	Not Applicable	1.00
O&M Costs \$/MW	21,285	7,847	Not Applicable	2,897
O&M Equiv Work Year per MW	0.10	0.03	Not Available	0.0
Availability Factor	86.4	82.3	**88.64	98.5
Forced Outage Factor	0.10	2.6	**2.61	0.0
Scheduled Outage Factor	13.5	15.1	**8.74	0.0

*Weighted by Net Generation

**2006 NERC Average