Canyon Ferry Powerplant
Pick-Sloan Missouri Basin Program

Ancillary Services

Canyon Ferry
Ancillary Services

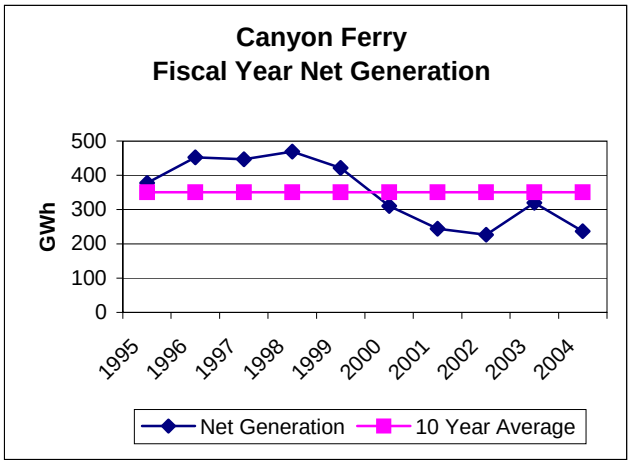
Spinning Reserve	Yes
Non-Spinning Reserve	Yes
Replacement Reserve	Yes
Regulation/Load Following	No
Black Start	Yes
Voltage Support	Yes

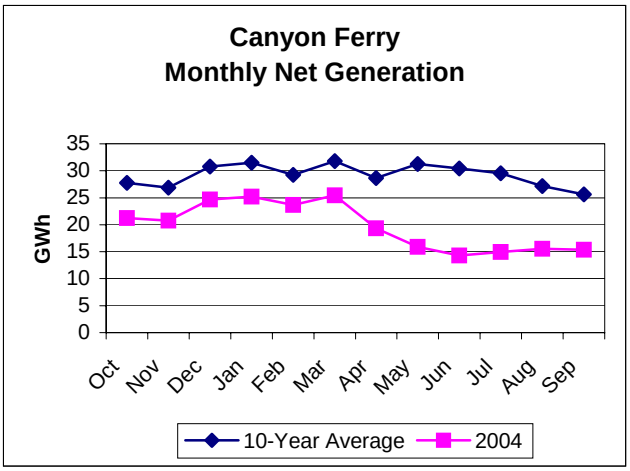
Generators

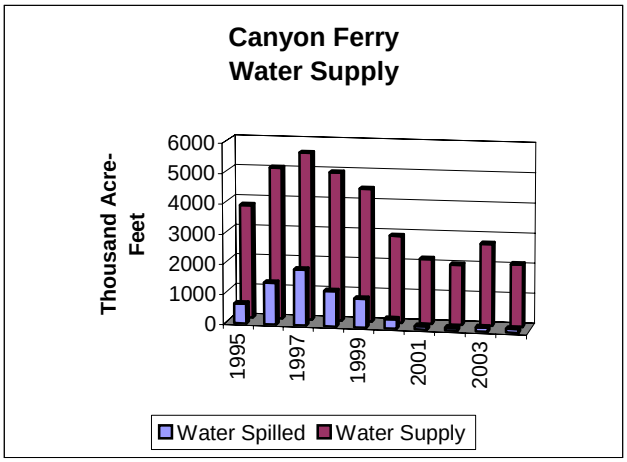
Canyon Ferry Generators
Existing Number and Capacity

Unit #	Original Capacity (kW)	Capacity Increased (kW)	Present Capacity (kW)
1	16,667	0	16,667
2	16,667	0	16,667
3	16,667	0	16,667
3 Units	50,000	0	50,000

Generation



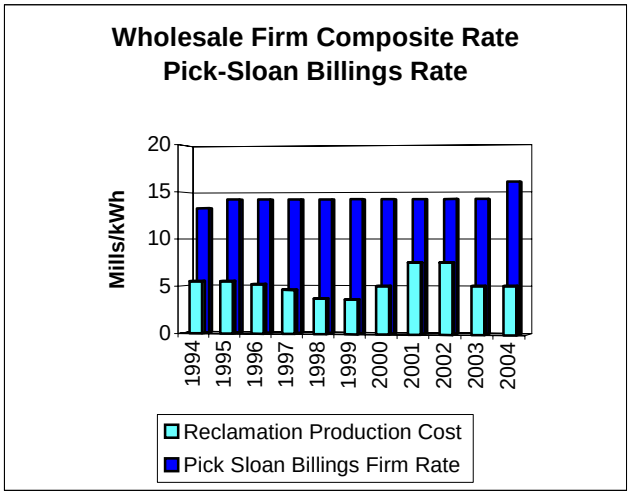




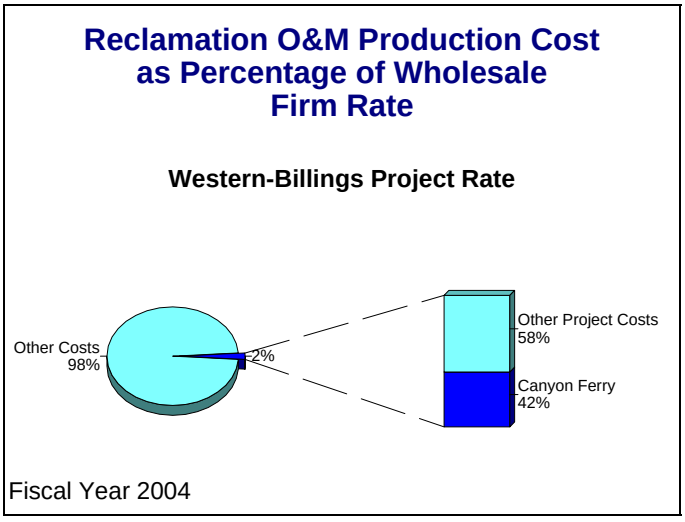
Drought conditions encountered for the fifth consecutive year.

Prime Laboratory Benchmarks

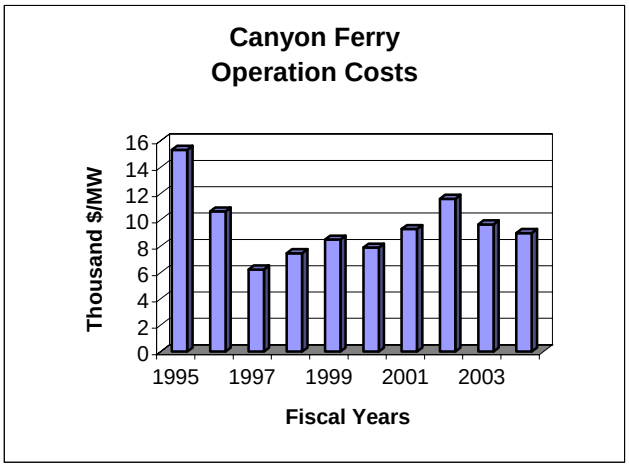
Benchmark 1
Wholesale Firm Rate

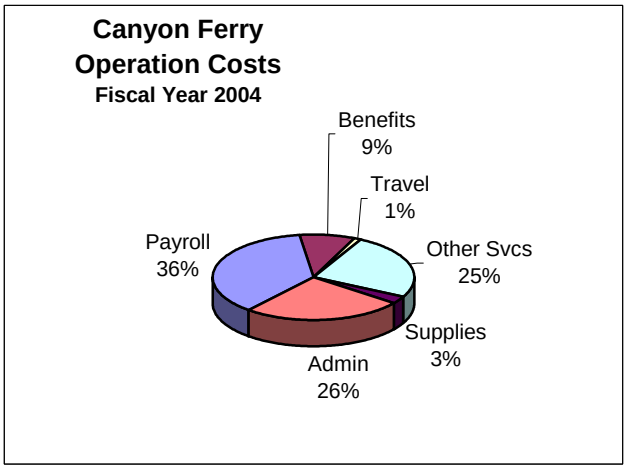


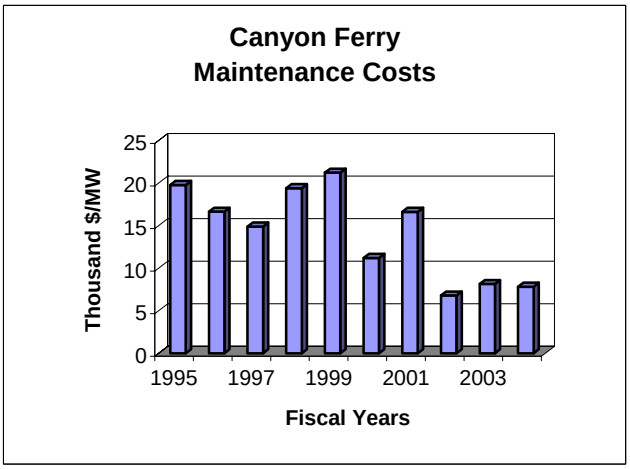
Benchmark 2
Reclamation's Production Cost as Percentage of Wholesale Firm Rate

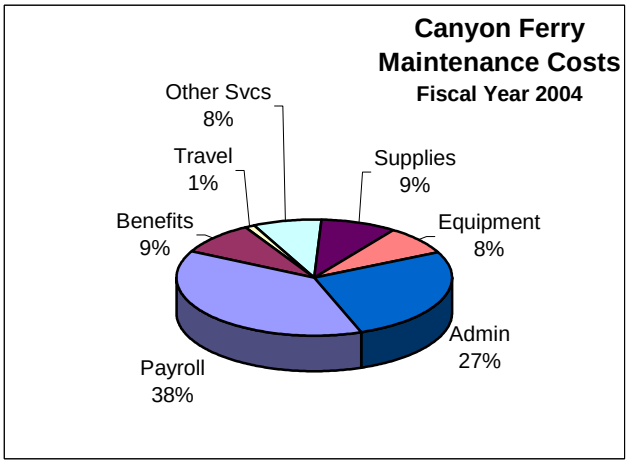


Benchmark 3
Production Cost



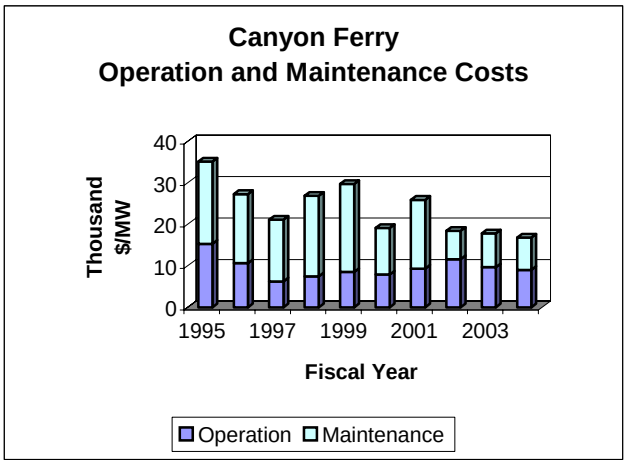


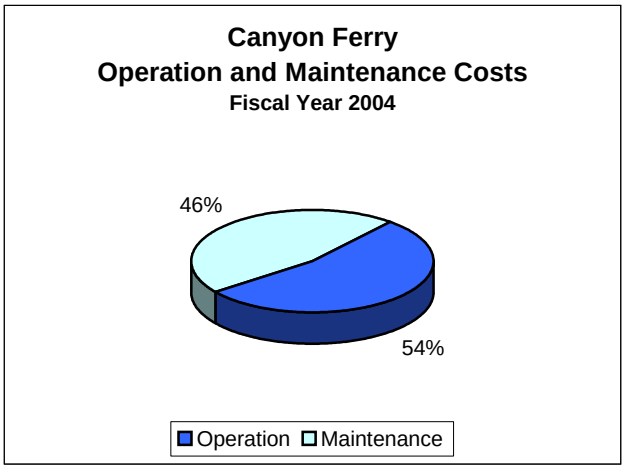


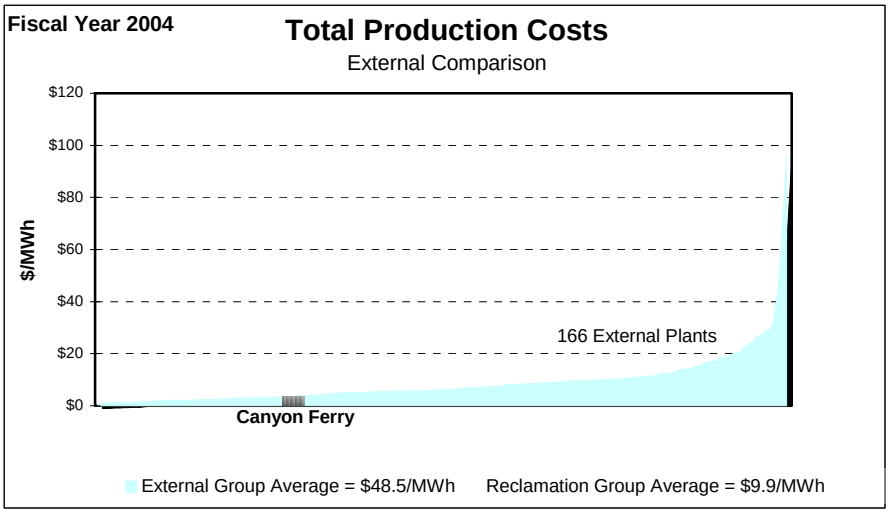


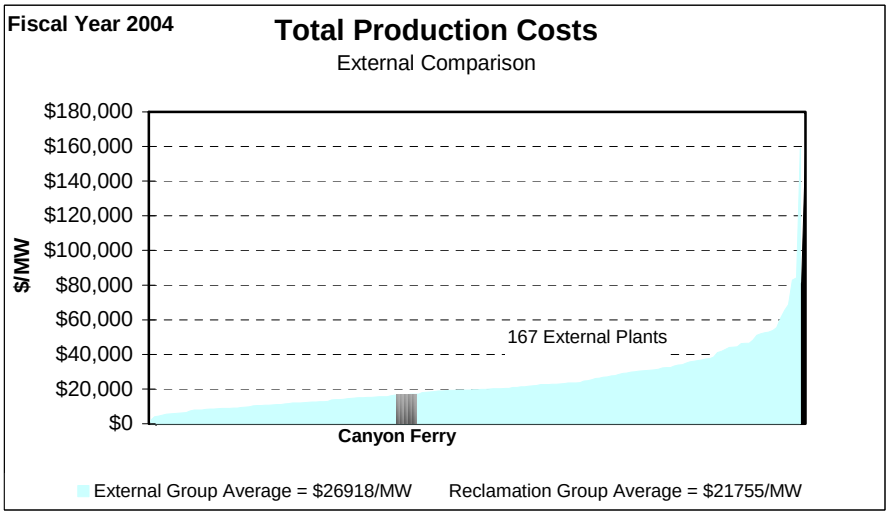
FY-02 maintenance costs include extraordinary maintenance costs for stabilization of the riverbank downstream of the powerplant.

Benchmark 3
Production Cost



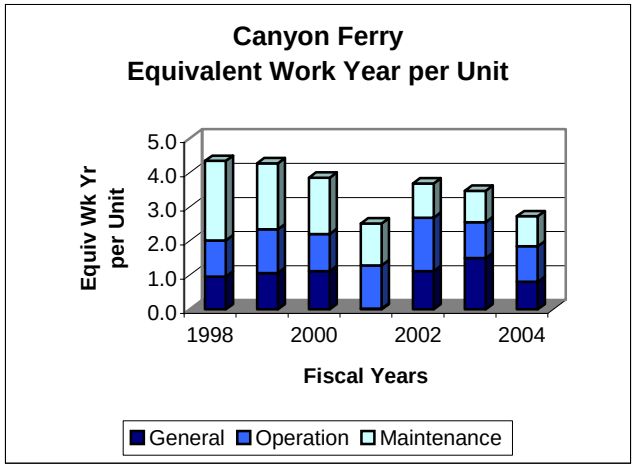


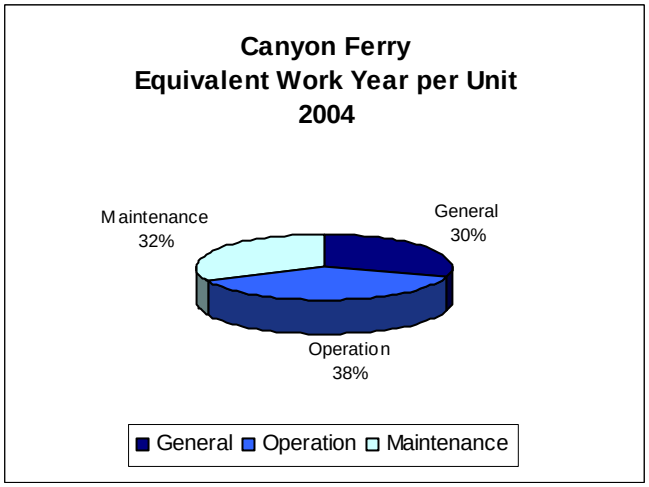


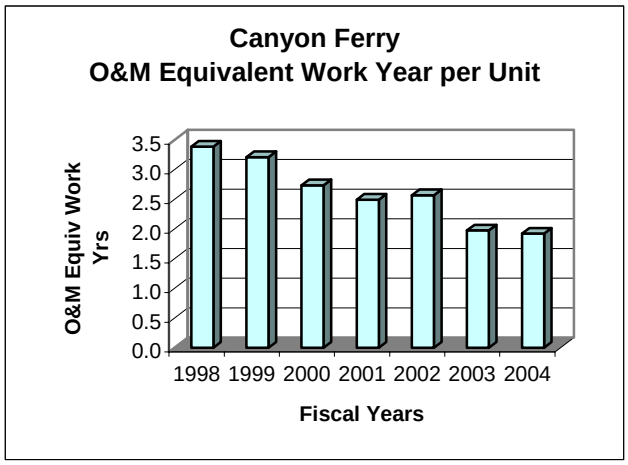


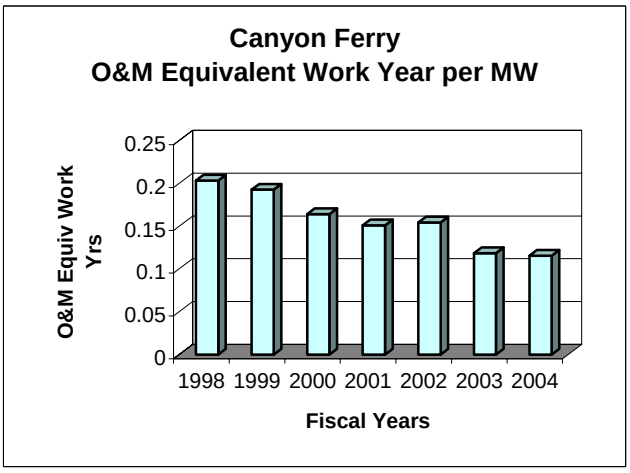
Benchmark 4
Workforce Deployment

Canyon Ferry 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	2.12	0.24	0.05	2.42	0.81	0.05
Operation	2.80	0.32	0.00	3.12	1.04	0.06
Maintenance	2.37	0.27	0.00	2.64	0.88	0.05
Total Staffing	7.28	0.84	0.05	8.17	2.72	0.16

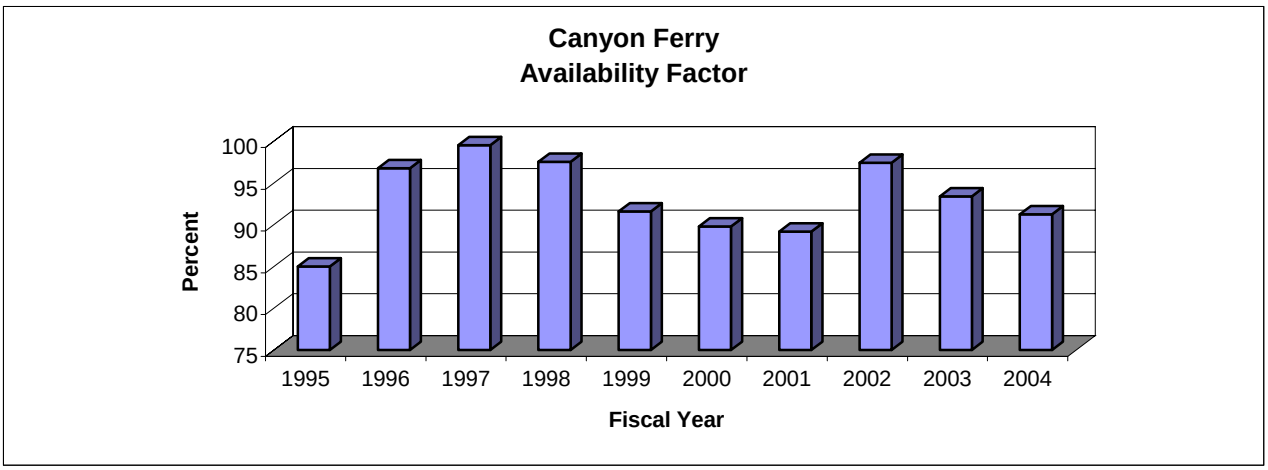






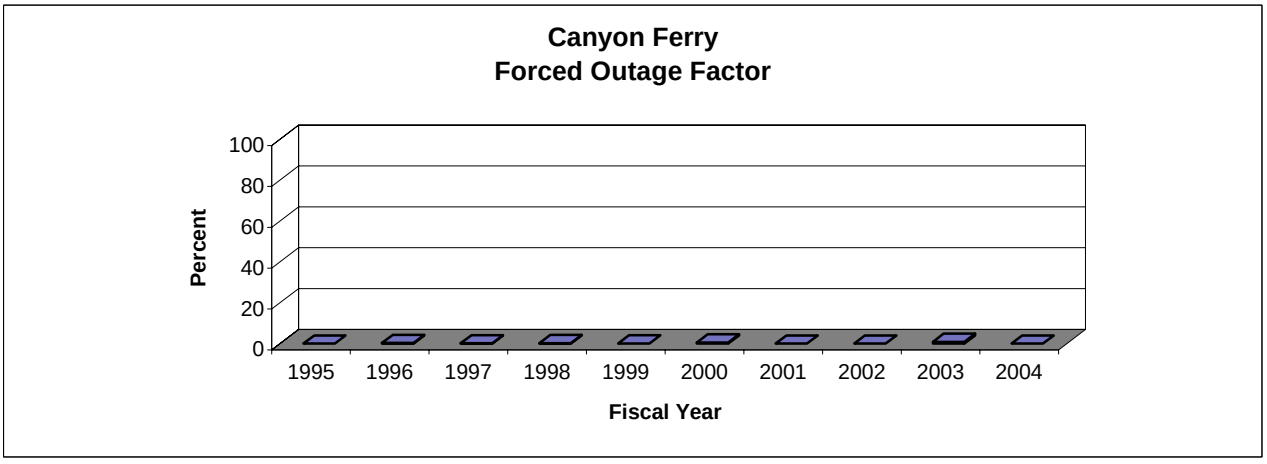


Benchmark 5
Availability Factor

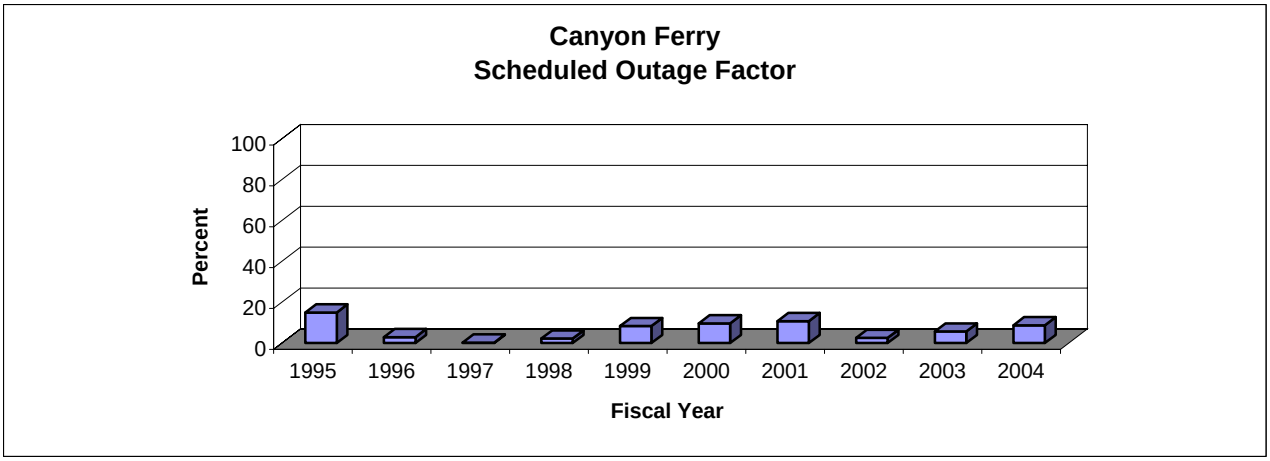


FY-95 – Extended unit outages due to automating and remotely controlling the powerplant.
FY-99, FY-00, FY-01 – Each included a 6-week extended outage for refurbishing the penstock's fixed-wheel gate and overhauling the hydraulic cylinders.

Benchmark 6
Forced Outage Factor

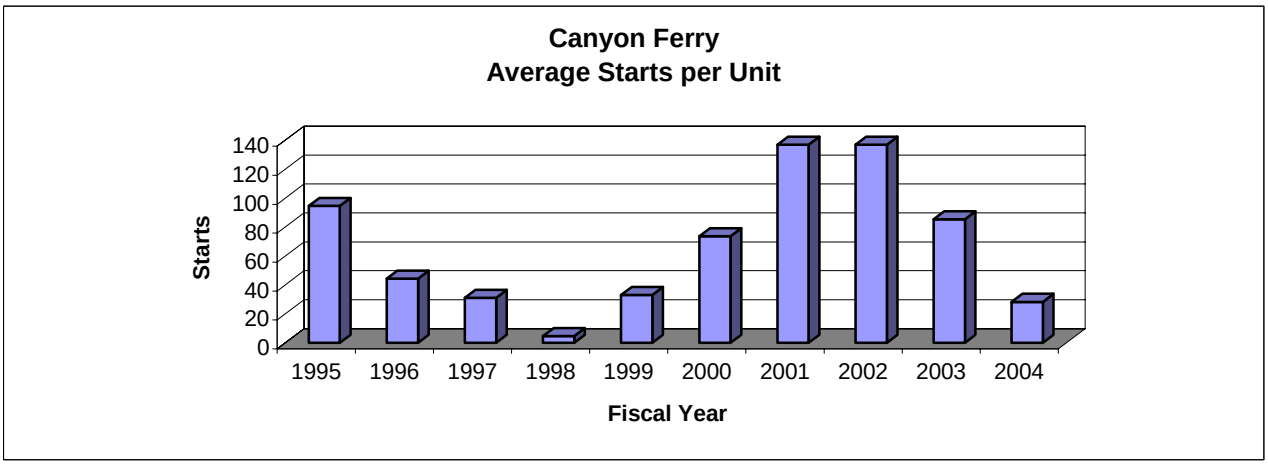


Benchmark 7
Scheduled Outage Factor



FY-95 – Automation work on all 3 units
FY-99, FY-00, FY-01 – Each included a 6-week extended outage for refurbishing the penstock's fixed-wheel gate and overhauling the hydraulic cylinders.

Starts



Benchmark Data Comparison					
Fiscal Year 2004	**Canyon Ferry Powerplant**	**Reclamation Average 30-100 MW Group**	**Total Reclamation Average**	**Industry Average**	**Best Performers**
Wholesale Firm Rate Mills/kWh	14.2	Not Applicable	*21.06	Not Available	Not Available
Production Cost as Percentage of Wholesale Firm Rate	0.78%	Not Applicable	13.5%	Not Applicable	Not Applicable
O&M Cost $/MWh	3.56	7.90	2.77	48.48	1.23
O&M Costs $/MW	16,821.07	19,931.46	7,316.97	26,917.84	2,951.22
O&M Equiv Work Year per MW	0.12	0.11	0.04	Not Available	0
Availability Factor	91.3	88.1	86.9	**89.2	99.96983495
Forced Outage Factor	0.0	0.3	0.7	**1.9	0.00
Scheduled Outage Factor	8.7	11.5	12.4	**8.9	0.02

***Weighted by Net Generation**
****2003 NERC Average**
*****Energy Information Administration Data**

The Missouri River Basin experienced its fifth consecutive year of drought conditions in FY-2004, which resulted in below average generation (MWh).