Judge Francis Carr Powerplant Central Valley Project

Judge Francis Carr
Ancillary ServicesSpinning ReserveYesNon-Spinning ReserveYesReplacement ReserveYesRegulation/Load FollowingYesBlack StartNoVoltage SupportYes

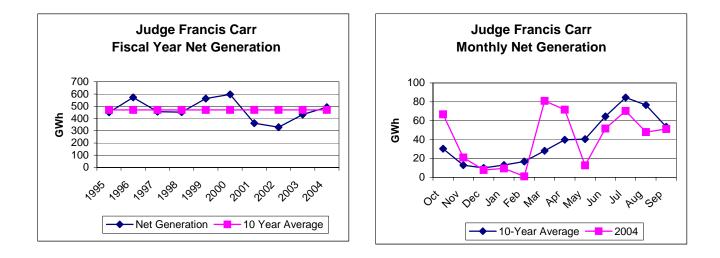
Ancillary Services

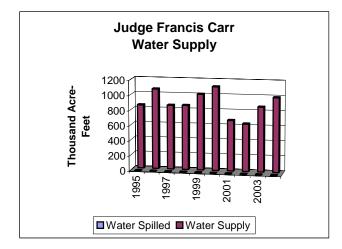
Judge Francis Carr Generators								
Existing Number and Capacity								
Unit #	Original Capacity (kW)	Capacity Increased (kW)	Present Capacity (kW)					
1	71,840	5,360	77,200					
2	71,840	5,360	77,200					
2 Units	143,680	10,720	154,400					

Generators

The maximum operational capacity is restricted to 150,000 kW due to the tunnel.

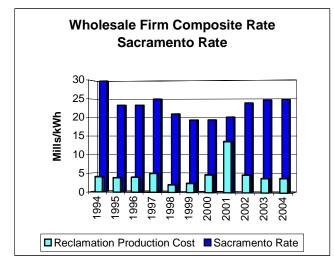
Generation



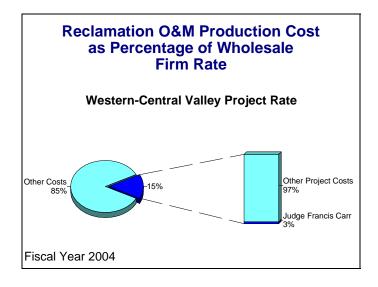


Prime Laboratory Benchmarks

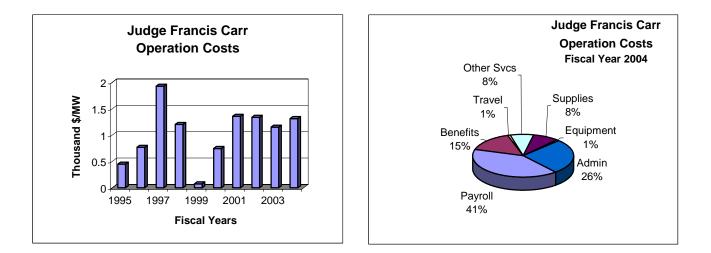
Benchmark 1 Wholesale Firm Rate

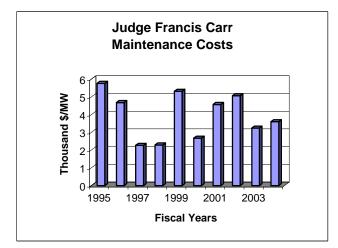


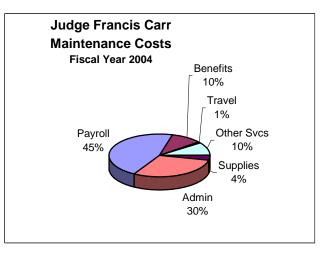
Benchmark 2 Reclamation's Production Cost as Percentage of Wholesale Firm Rate



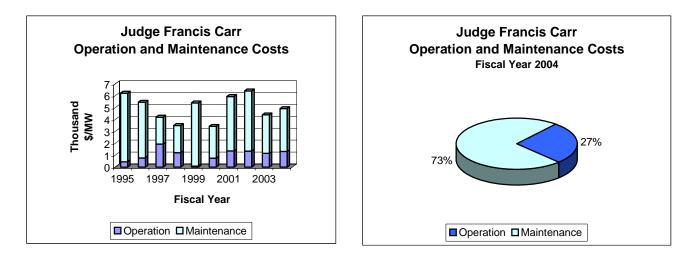
Benchmark 3 Production Cost

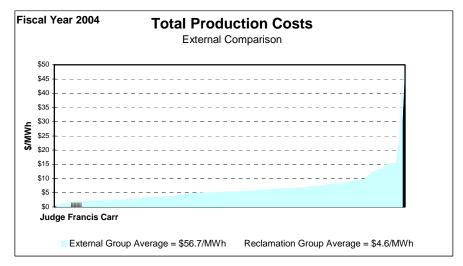


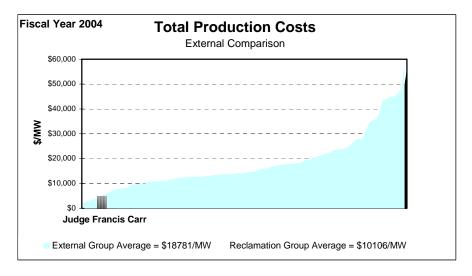




Benchmark 3 Production Cost

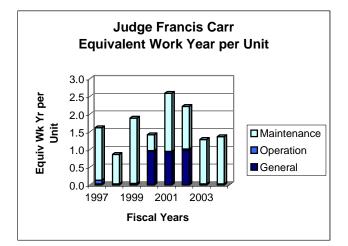


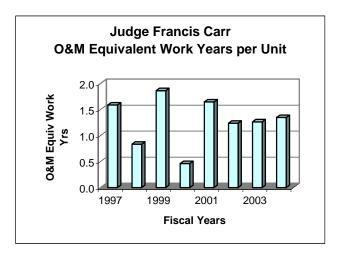


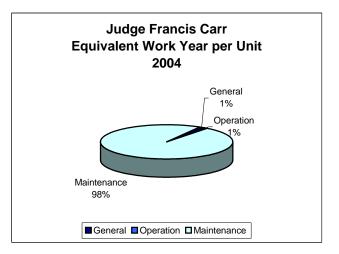


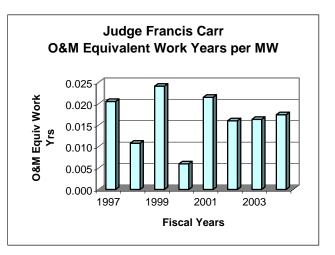
Benchmark 4 Workforce Deployment

JF Carr 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	0.00	0.00	0.03	0.03	0.02	0.00			
Operation	0.02	0.00	0.00	0.02	0.01	0.00			
Maintenance	2.39	0.28	0.00	2.67	1.33	0.02			
Total Staffing	2.41	0.28	0.03	2.73	1.36	0.02			

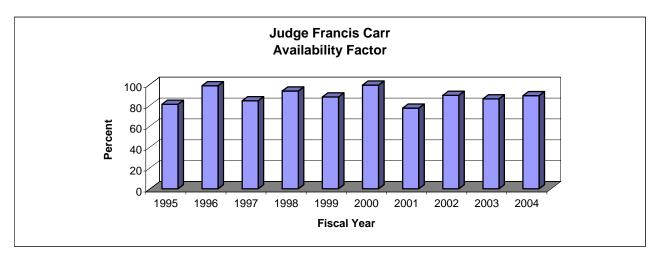




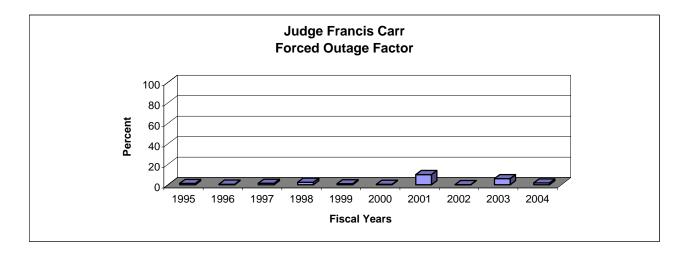




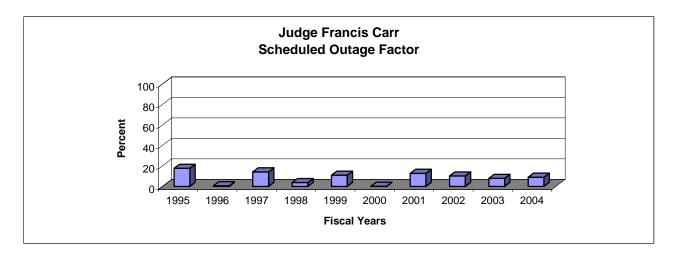
Benchmark 5 Availability Factor



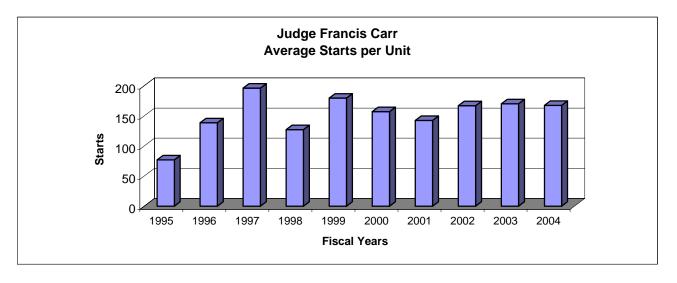
Benchmark 6 Forced Outage Factor



Benchmark 7 Scheduled Outage Factor



Starts



Benchmark Data Comparison									
Fiscal Year 2004	Judge Francis Carr Powerplant	Reclamation Average 100-500 MW Group	Total Reclamation Average	Industry Average	Best Performers				
Wholesale Firm Rate Mills/kWh	24.6	Not Applicable	*21.06	Not Available	Not Available				
Production Cost as Percentage of Wholesale Firm Rate	0.4%	Not Applicable	13.5%	Not Applicable	Not Applicable				
O&M Cost \$/MWh	1.54	3.59	2.77	56.68	1.23				
O&M Costs \$/MW	4,917.65	8,960.28	7,316.97	18,781.34	2,951.22				
O&M Equiv Work Year per MW	0.02	0.05	0.04	Not Available	0.000				
Availability Factor	89.2	91.0	86.9	**89.2	99.97				
Forced Outage Factor	1.8	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 ***Energy Information Administration Data