

# Lewiston Powerplant Central Valley Project

## Ancillary Services

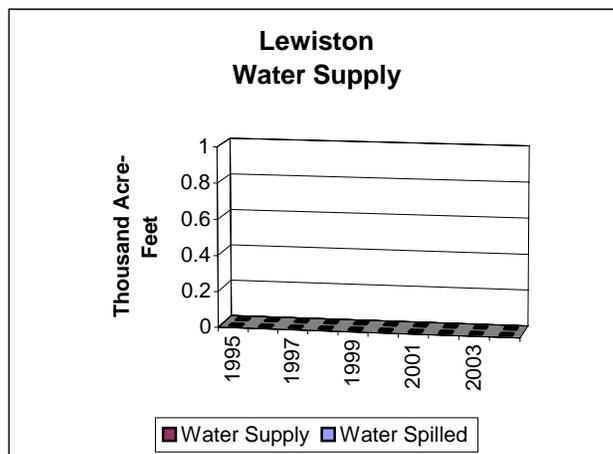
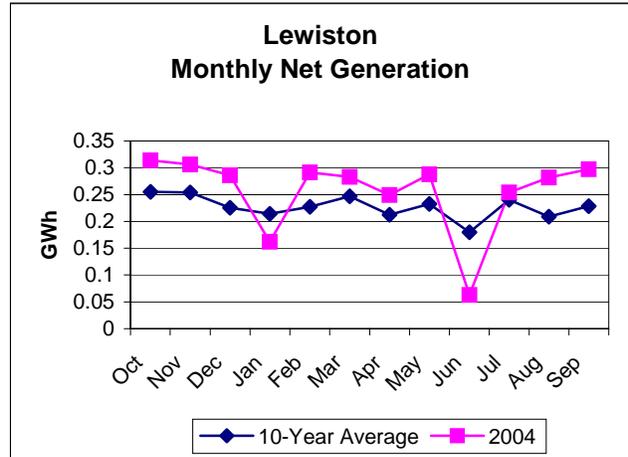
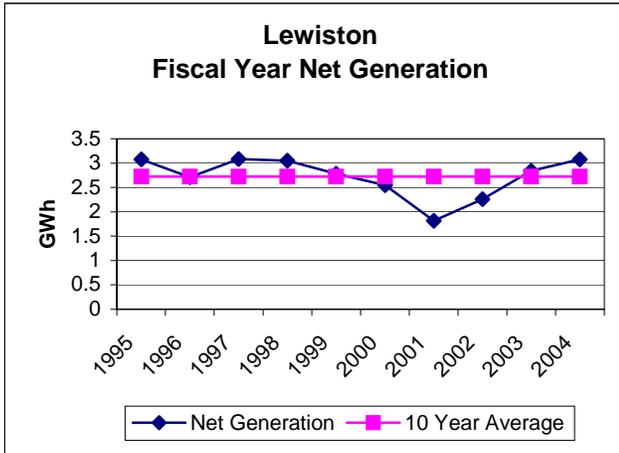
<b>Lewiston Ancillary Services</b>	
Spinning Reserve	No
Non-Spinning Reserve	No
Replacement Reserve	No
Regulation/Load Following	No
Black Start	Yes
Voltage Support	No

## Generators

<b>Lewiston Generators</b>			
Existing Number and Capacity			
Unit #	Original Capacity (kW)	Capacity Increased (kW)	Present Capacity (kW)
LN1	350	0	350
1 Unit	350	0	350

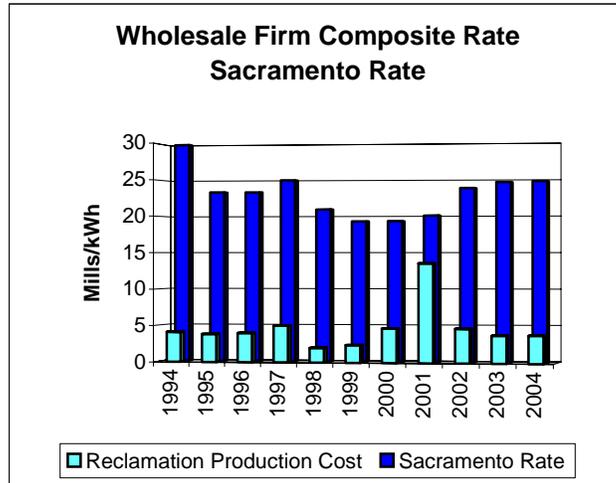
The maximum operational capacity is 504 kW.

Generation

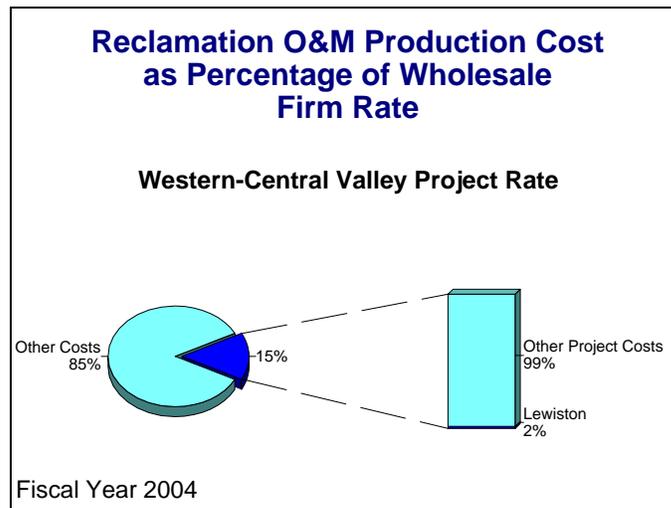


**Prime Laboratory Benchmarks**

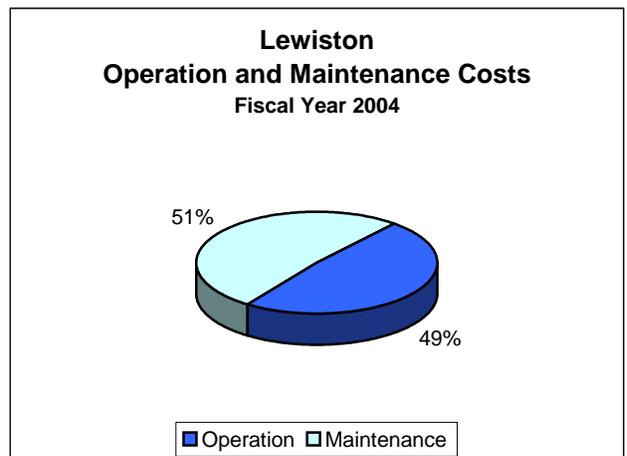
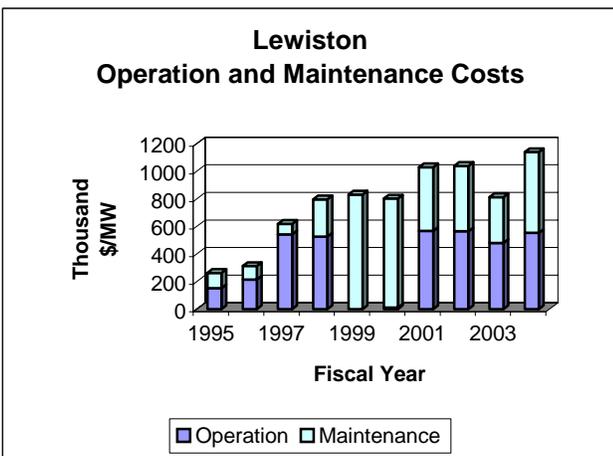
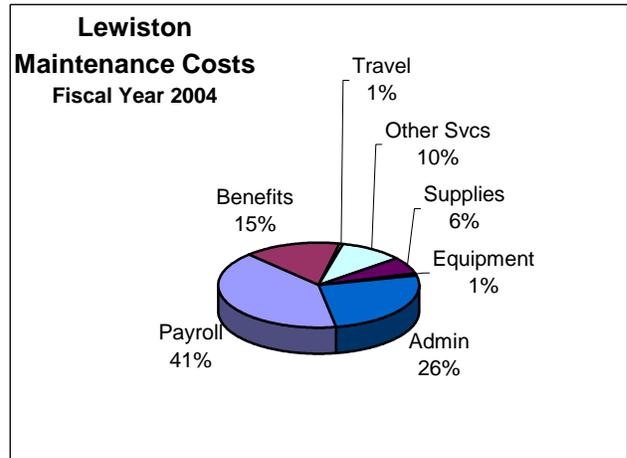
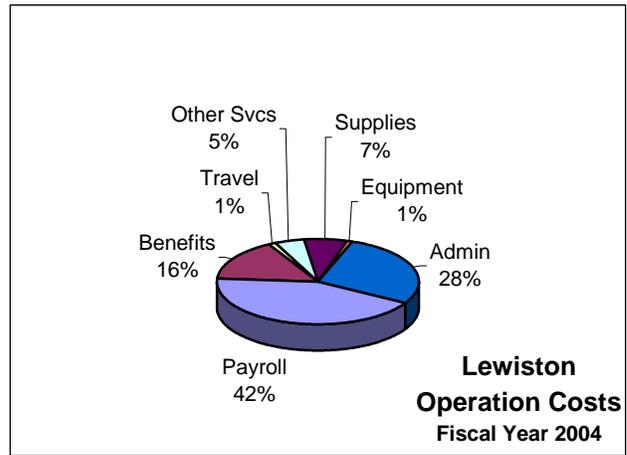
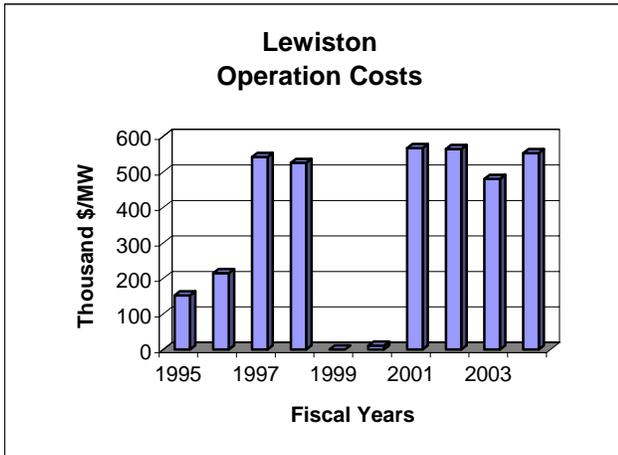
**Benchmark 1  
Wholesale Firm Rate**



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



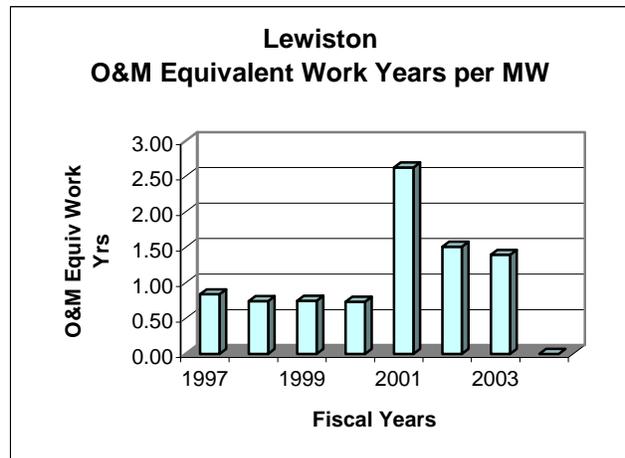
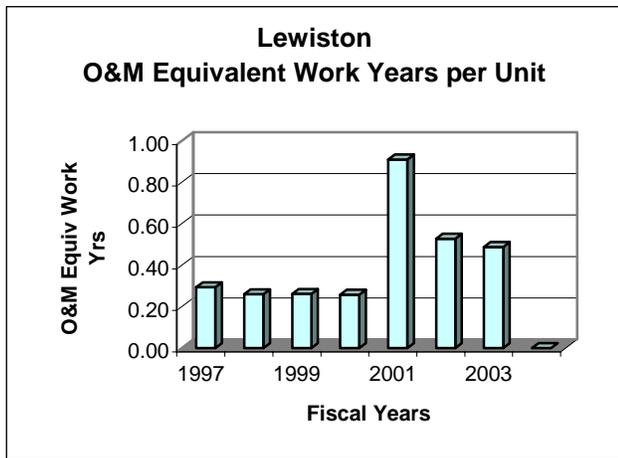
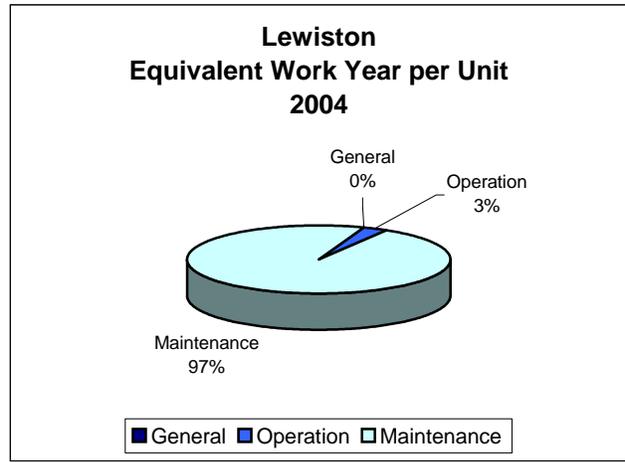
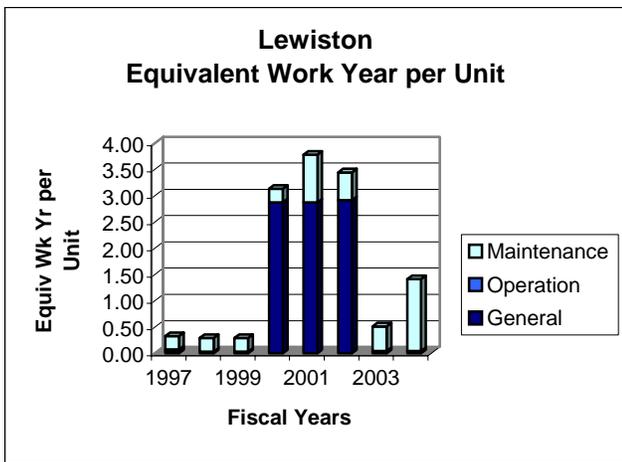
**Benchmark 3  
Production Cost**



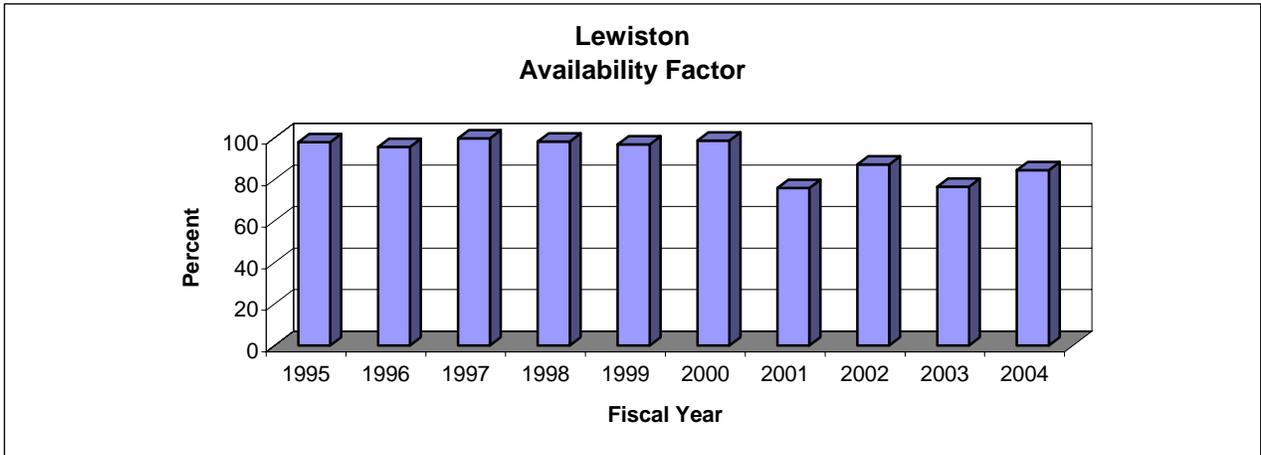
**Benchmark 4  
Workforce Deployment**

**Lewiston 2004 Equivalent Work Year Levels**

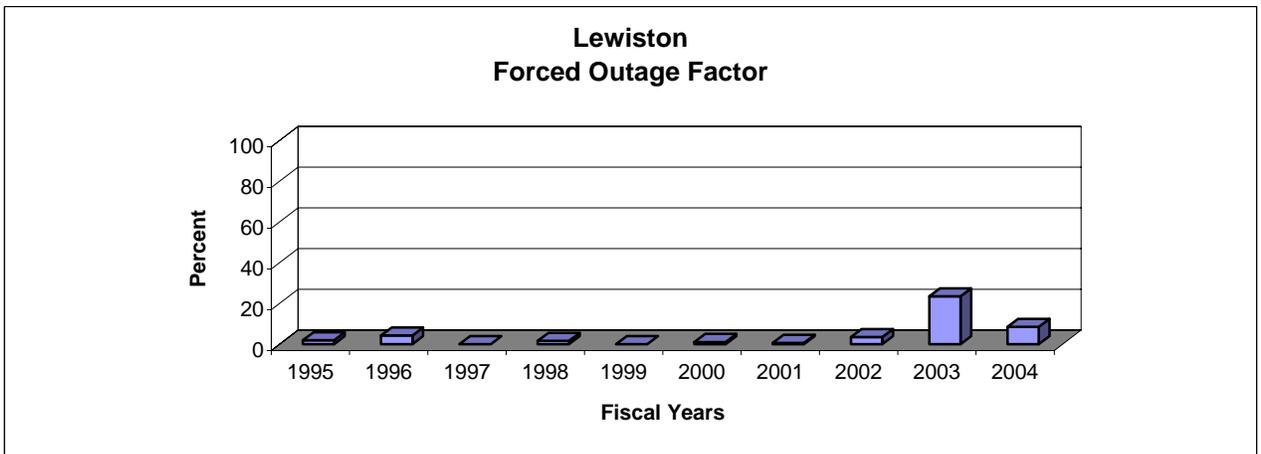
	Equiv Work Year Charged to Powerplant	Leave Additive	Denver and Washington Equiv Work Year Additive	Total Equiv Work Year Allocated to Powerplant	Total Equiv Work Year per Generating Unit	Total Equiv Work Year per Megawatt
General	0.00	0.00	0.00	0.00	0.00	0.00
Operation	0.04	0.00	0.00	0.04	0.04	0.12
Maintenance	1.22	0.14	0.00	1.37	1.37	3.90
Total Staffing	1.26	0.15	0.00	1.41	1.41	4.02



**Benchmark 5  
Availability Factor**

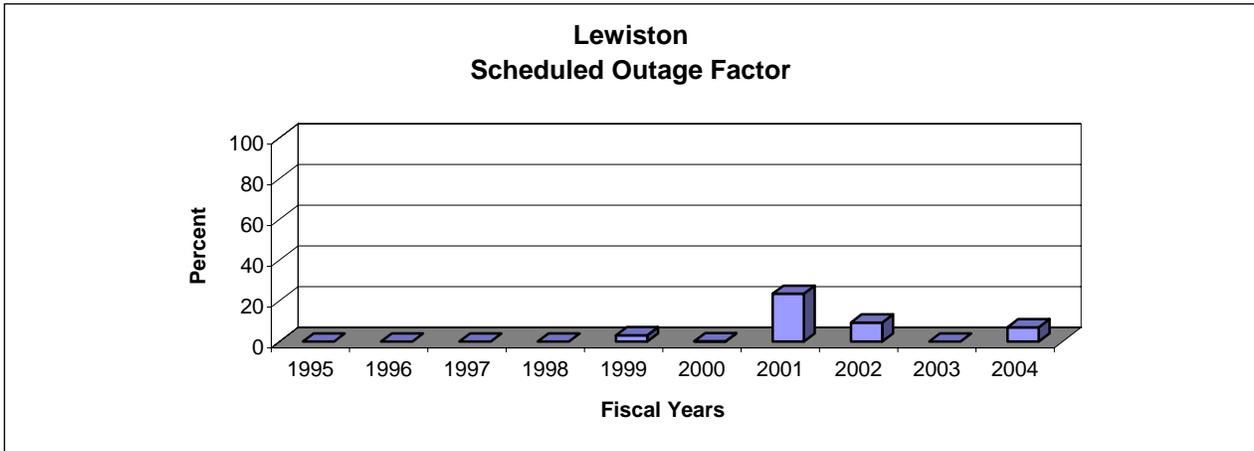


**Benchmark 6  
Forced Outage Factor**

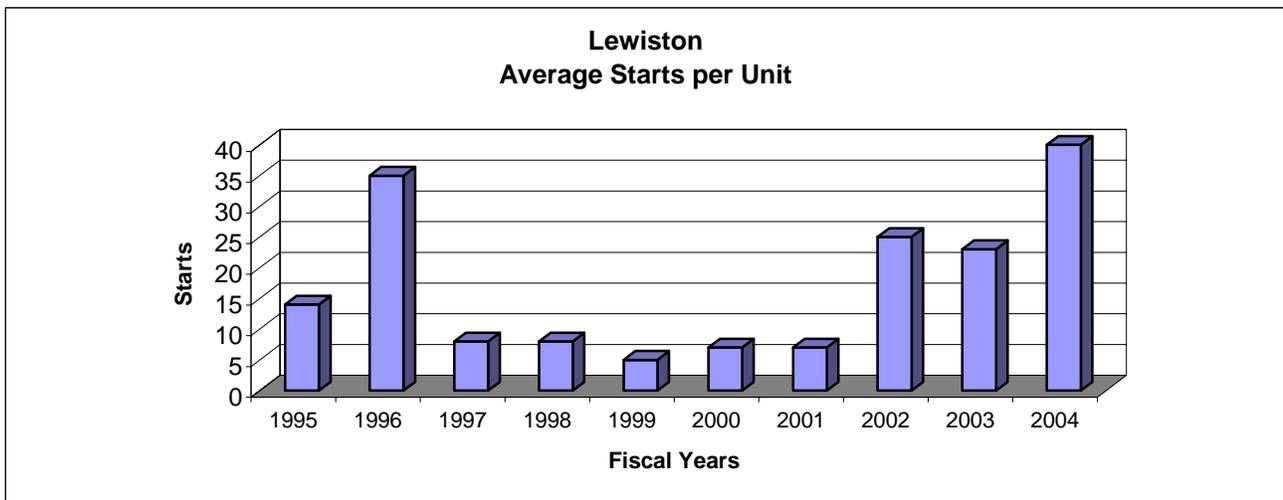


FY 03 – Several forced outages were the result of severe weather (lightning storms) and problems in the Trinity County Public Utility District distribution system. The remoteness of the site and the age of the equipment also contributed to the length of these outages.

**Benchmark 7  
Scheduled Outage Factor**



**Starts**



<b>Benchmark Data Comparison</b>				
<b>Fiscal Year 2004</b>	<b>Lewiston Powerplant</b>	<b>Total Reclamation Average</b>	<b>Industry Average</b>	<b>Best Performers</b>
<b>Wholesale Firm Rate Mills/kWh</b>	24.6	*21.06	Not Available	Not Available
<b>Production Cost as Percentage of Wholesale Firm Rate</b>	0.2%	13.5%	Not Applicable	Not Applicable
<b>O&amp;M Cost \$/MWh</b>	129.61	2.77	Not Applicable	1.23
<b>O&amp;M Costs \$/MW</b>	1,138,673.29	7,316.97	Not Applicable	2,951.22
<b>O&amp;M Equip Work Year per MW</b>	0.00	0.04	Not Available	0.000
<b>Availability Factor</b>	84.5	86.9	**89.2	99.97
<b>Forced Outage Factor</b>	8.44	0.7	**1.9	0.00
<b>Scheduled Outage Factor</b>	7.0	12.4	**8.9	0.02

**\*Weighted by Net Generation**

**\*\*2003 NERC Average**

**\*\*\*Energy Information Administration Data**

At 350 kW, Lewiston is the smallest powerplant in Reclamation. As a result, the cost indicators are out of line compared to 40 MW units and larger.

Several forced outages were the result of severe weather (lightning storms) and problems in the Trinity County Public Utility District distribution system. The remoteness of the site and the age of the equipment also contributed to the length of these outages.