

MANAGEMENT DISCUSSION AND ANALYSIS

MACROECONOMIC AND ELECTRICITY DEMAND

The economy of the PRC maintained steady growth in 2001. GDP of the State amounted to approximately RMB9,600 billion, representing an increase of 7.3% over 2000. GDP of Shandong Province was RMB943.8 billion, representing an increase of 10.1% over 2000, and was 2.8 percentage over the national average. It was the eleventh consecutive year in the province recording a two-digit economic growth rate.

In 2001, the power consumption of the whole society of Shandong Province was 110.45 million MWh, representing an increase of 8.11% over 2000. The industrial sector of Shandong Province consumed 82.49 million MWh, representing an increase of 7.64% over the same period of last year and accounted for 74.68% of the total power consumption by Shandong Province. The agriculture, fisheries and water conservancy industries consumed 5.95 million MWh, representing an increase of 10.31% over the same period of last year and accounted for 5.39% of the total power consumption by Shandong Province. The power consumed by the urban and rural residents was 13.04 million MWh, representing an increase of 6.39% over the same period of last year and accounted for 11.8% of the total power consumption by Shandong Province. As at 31 December 2001, the total installed capacity of Shandong Province reached 21,013.93MW, representing an increase of 4.65% over 2000.

OPERATING REVENUE AND PROFIT

In 2001, the Group enhanced its management, stringently controlled all the expenses and attained the operating targets of the Group. The total amount of electricity sold by the Group to the grid under proportionate sharing was 25.08 million MWh. The operating revenue for the year amounted to approximately RMB7,142 million, representing an increase of approximately 4.08% over the corresponding period of 2000. Net profit increased by RMB40 million to RMB1,379 million, representing an increase of approximately 3% over the corresponding period of the previous year. The increase in profit is mainly attributable to the increase in electricity generation, the achievement of better cost control and the reduction in finance costs during the year.

OPERATING COSTS

During the year 2001, unit operating cost of the Group amounted to RMB182.58/MWh, representing an increase of 3.74% over 2000.

In 2001, fuel cost for generation increased by 10.5% over 2000 amounting to RMB2,097 million as a result of an increase in electricity generation and increase in the prices of coal for power generation. Unit fuel cost was RMB83.61/kWh, representing an increase of 5.43% over 2000. The Group had enhanced the management of its facilities and upgraded its technology in order to reduce fuel consumption. As a result, part of the increased unit fuel cost caused by increase in coal prices had been set off.

Depreciation and amortisation cost in 2001 increased by 4.13% over 2000 to RMB1,050 million primarily due to the full year's operating effect of Laicheng's new generating unit which commenced operation in September 2000.

Expenses for maintenance and routine repairs mainly comprised expenses for major and minor overhauls and other expenses for routine repairs. In 2001, such expenses rose by 13% to RMB479 million over 2000 primarily due to the increase in planned major overhauls.

In 2001, wages and staff welfare amounted to RMB222 million, representing an increase of approximately RMB49,193,000 over 2000 primarily due to increase in average wages of the Company's staff and increase in the number of staff.

Sales and administration expenses totalled RMB531 million, representing an increase of 6.38% over 2000 primarily due to the increase in electricity generation causing a corresponding increase in grid expenses and the increase in technology development expenses.

INTEREST

Interest income of the Group for 2001 totalled RMB120 million and interest expenses borne by the Group in 2001 amounted to RMB631 million which had decreased by RMB98,072,000 from 2000. Decline in interest expenses is primarily due to the scheduled repayment of part of its long-term loan.

INDEBTEDNESS

As at 31 December 2001, the borrowing of the Group totalled RMB9,299 million, of which US\$234 million was loans in US dollars. The net liability to equity ratio was 38.7% (which was calculated based on loans less cash and cash equivalent and fixed deposits and divided by loans and owners' equity).

In order to further reduce the finance costs and to optimize the debt structure of the

Company, the Company made partial repayment in January 2002 for a loan in the sum of US\$208.5 million advanced by the World Bank which was on-lent through the Ministry of Finance.

PRODUCTION, OPERATION AND SAFETY

In 2001, the electricity generation of the Group (calculated according to the proportionate share of interests owned by the Group) amounted to 26.64 million MWh, representing an increase of approximately 4.67% over 2000. The equivalent availability factor of the generating units was 93.20%; the equivalent forced suspension rate was 0.35%; the average utilisation hours of the generation units attained 5,626 hours, being 142 hours more than those of the grid average in Shandong Province.

In 2001, the Group's operation safety maintained at satisfactory level. As at 31 December 2001, none of the power plants of the Group had any unsafe incidents throughout the year.

In 2001, a total of 4 major overhauls and 11 minor overhauls were undertaken with respect to the generating units of the Group resulting in a planned overhaul rate of 6.32%, representing an increase of 1.04 percentage points over 2000.

TECHNOLOGICAL UPGRADE PROJECTS

In 2001, the technological upgrade projects of the Group progressed smoothly. The purpose of these upgrade projects by the Group was to enhance operation safety of the facilities and the production efficiency of the generating units. The Group had introduced new technology to upgrade some of its steam turbine generating units and the effect was satisfactory.

After implementation of technological improvement in respect of energy saving and increase in capacity, the standard generation coal consumption rate of the second unit of Shiliquan Plant was reduced by approximately 15g/kWh on average and the unit capacity was increased by 12.5MW to 137.5MW; the standard generation coal consumption rate of the fourth unit of Zouxian Plant was reduced by approximately 18g/kWh on average and the unit capacity was increased by 30MW to 330MW. The rated capacity of the above two units have been changed to 137.5MW and 330MW respectively.

The major proposed technology upgrade projects to be undertaken by the Group during 2002 include:

1. Technological improvement in respect of energy saving and increasing the capacity of the first and the third units of Zouxian Plant;

2. Technological improvement in respect of energy saving and increasing the capacity of the third and the fourth units of Shiliquan Plant;
3. Waste water recycle project of Shiliquan Plant.

OPERATION STATISTICS

The table below sets out certain operation statistics of the power plants owned by the Group:

Zouxian Plant:

	2001	2000	1999
Installed capacity at year end (MW)	2400	2400	2400
Amount of electricity generated (million MWh)	13.56	13.45	13.16
On-grid electricity generation (million MWh)	12.81	12.68	12.37
Available hours	8044	8316	7589
Operating hours	7804	7967	7400
Average utilisation hours	5650	5605	5481
Capacity factor (%)	66.05	63.80	62.57
Load factor (%)	72.40	70.34	74.07
Equivalent availability factor (%)	93.87	94.71	86.48
Standard generation coal consumption (g/kWh)	334.9	342.1	346.0

Shiliquan Plant:

	2001	2000	1999
Installed capacity at year end (MW)	1225	1225	1225
Amount of electricity generated (million MWh)	6.76	6.71	6.31
On-grid electricity generation (million MWh)	6.33	6.26	5.88
Available hours	8205	8241	7564
Operating hours	7777	7727	7150

Average utilisation hours	5521	5475	5150
Capacity factor (%)	63.81	63.21	60.30
Load factor (%)	71.00	70.86	72.04
Equivalent availability factor (%)	94.79	95.15	88.56
Standard generation coal consumption (g/kWh)	359.4	364.0	365.3

Laicheng Plant:

	2001	2000	1999
Installed capacity at year end (MW)	600	600	300
Amount of electricity generated (million MWh)	3.40	2.27	0.04
On-grid electricity generation (million MWh)	3.19	2.11	0.04
Available hours	7951	5288	520
Operating hours	7653	5234	520
Average utilisation hours	5660	5836	129
Capacity factor (%)	64.61	66.55	19.51
Load factor (%)	73.95	70.38	19.51
Equivalent availability factor (%)	90.76	94.92	100
Standard generation coal consumption (g/kWh)	344.9	355	385.0

Note: The first unit of Laicheng Plant commenced operation on 10 December 1999;
The second unit of Laicheng Plant commenced operation on 27 September 2000.

Qingdao Plant:

	2001	2000	1999 (July - December)
Installed capacity at year end (MW)	600	600	600
Amount of electricity generated (million MWh)	3.40	3.64	1.66
On-grid electricity generation (million MWh)	3.20	3.43	1.55
Available hours	7784	8359	4331
Operating hours	7717	8186	3761
Average utilisation hours	5661	6074	2760

Capacity factor (%)	64.62	69.15	62.5
Load factor (%)	73.35	74.20	73.38
Equivalent availability factor (%)	88.86	95.16	98.07
Standard generation coal consumption (g/kWh)	334.2	338.9	343.1

Weifang Plant:

	2001	2000	1999 (October - December)
Installed capacity at year end (MW)	600	600	600
Amount of electricity generated (million MWh)	3.51	3.60	0.71
On-grid electricity generation (million MWh)	3.30	3.38	0.66
Available hours	8246	8140	1677
Operating hours	7965	7910	1667
Average utilisation hours	5849	5991	1176
Capacity factor (%)	66.77	68.21	53.26
Load factor (%)	73.44	75.74	70.53
Equivalent availability factor (%)	94.14	92.64	75.96
Standard generation coal consumption (g/kWh)	350.0	351.2	353.1