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UKRAINE

Power Sector Regulatory Reform and Restructuring

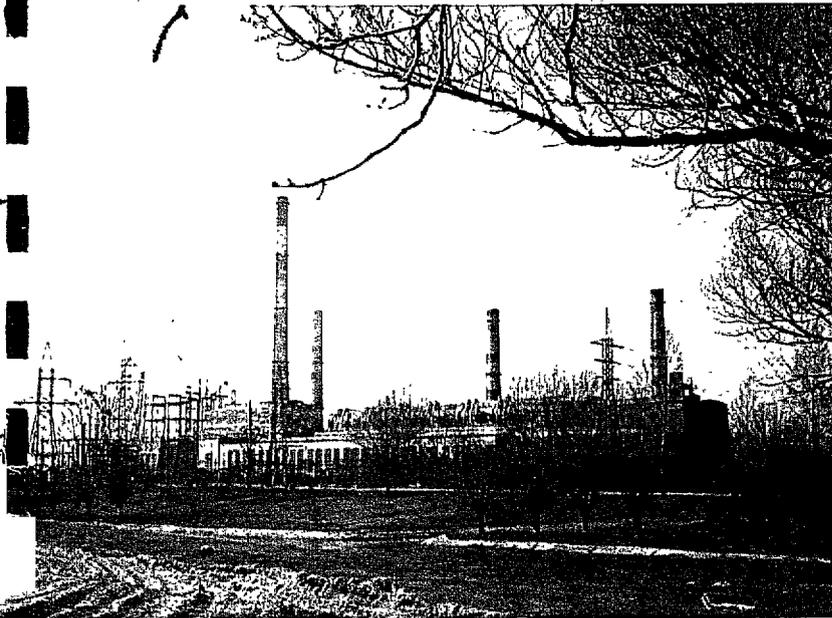
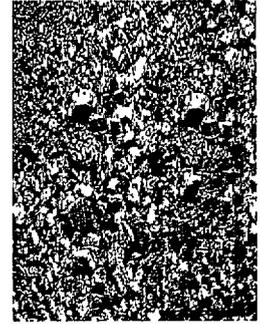
Task - Institutional Development Activity

Delivery Order No. 4-01

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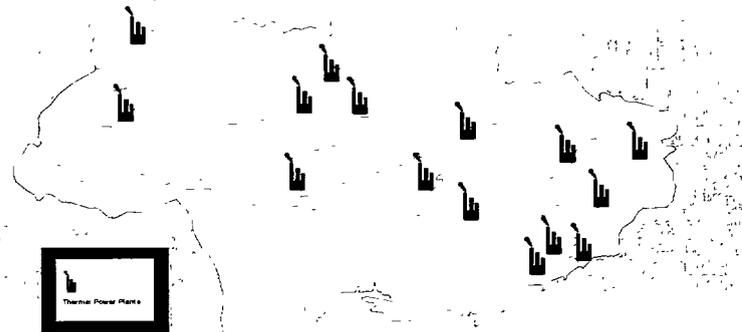
**FINANCIAL
FORECASTING
MODEL**

Prepared by:



Price Waterhouse LLP

October 3, 1995



A

FINANCIAL MANAGEMENT SYSTEMS

**Presentation of a Financial Forecasting Model
For a Sample Fossil Generating Company**

July 19, 1995
Ukraine Power Restructuring Project
Price Waterhouse LLP
Kiev, Ukraine

FINANCIAL MANAGEMENT SYSTEMS
PRESENTATION OF FINANCIAL FORECASTING MODEL

OUTLINE

- 1. Why design an Integrated Financial Management System?**
- 2. How can the Integrated Financial Management System be used for financial planning?**
- 3. What information can long-term financial forecasts provide?**
- 4. What are the objectives of the financial forecasting model?**
- 5. What are the basic assumptions of the financial forecasting model?**
- 6. What are the outputs of the financial forecasting model?**

**FINANCIAL MANAGEMENT SYSTEMS
PRESENTATION OF FINANCIAL FORECASTING MODEL**

1. Why design an Integrated Financial Management System?

- An Integrated Financial Management System will be an essential tool in the new market-based business environment. With the start of Energomarket operations, the GENCOs will be confronted with an entirely new set of business issues and decisions.
- Because of this new business environment, the GENCOs will need new sets of financial and operational data on which to base their decisions:
 - Some data will need to be recorded in new ways
 - Some new data will be needed which is not currently recorded
 - Data will need to be integrated into one unified system
- Price Waterhouse is currently developing a functional design (specifications) for an Integrated Financial Management System that can provide the needed financial and operational data in an integrated system.
- Once it is implemented, an Integrated Financial Management System can make it possible for GENCO management to make optimal strategic decisions in the new business environment, to attract investors, and to obtain needed capital investment.

FINANCIAL MANAGEMENT SYSTEMS
PRESENTATION OF FINANCIAL FORECASTING MODEL

2. How can the Integrated Financial Management System be used for financial planning?

The Integrated Financial Management System will be composed of a number of separate "Systems Groups." Financial planning functions would be performed within the "Cash Management Systems Group."

CASH MANAGEMENT SYSTEMS GROUP

Cash Processing

- **Daily Cash Processing** (Daily)
 - Record daily cash transactions
 - Record daily cash disbursements
- **Short-term Cash Requirements** (Less than 1 year)
 - Project cash receipts
 - Project disbursements
 - Project short-term cash requirements

Financial Planning

- **Medium-Term Financial Planning** (1 year to 3 years)
 - Prepare budgets and compare with actual performance
- **Long-Term Financial Planning** (3 years to 10 years)
 - Estimate cash flows from operations
 - Plan capital expenditures
 - Determine financing needs over a 5 to 10 year period
 - Estimate supportable level of debt and identify other sources of financing

**FINANCIAL MANAGEMENT SYSTEMS
PRESENTATION OF FINANCIAL FORECASTING MODEL**

2. How can the Integrated Financial Management System be used for financial planning?

These financial planning functions would require a wide range of financial and operational data. Much of this data could be obtained from the other Systems Groups:

DATA NEEDED FOR FINANCIAL PLANNING

- **Revenue Data**
 - Historical and forecast revenues
 - Accounts receivable

- **Fuel Cost Data**
 - Fuel procurement plans
 - Historical and current fuel data
 - Fuel inventory

- **Operating and Maintenance Cost Data**
 - Historical and forecast O&M costs
 - Allocation of collective costs (e.g., G&A)
 - Invoices and accounts payable

SYSTEMS GROUP CONTAINING DATA

Financial Management Systems Group / General Accounting
Accounts Receivable Systems Group

Materials Management Systems Group / Planned Requirements
Materials Management Systems Group / Planned Requirements
Materials Management Systems Group / Materials Invent. Control

Financial Management Systems Group / O & M Planning
Financial Management Systems Group / General Accounting
Accounts Payable Systems Group

FINANCIAL MANAGEMENT SYSTEMS
PRESENTATION OF FINANCIAL FORECASTING MODEL

2. How can the Integrated Financial Management System be used for financial planning?

DATA NEEDED FOR FINANCIAL PLANNING

SYSTEMS GROUP CONTAINING DATA

- | | |
|---|---|
| <ul style="list-style-type: none">• Capital Expenditures Data<ul style="list-style-type: none">- Forecast capital expenditures- Materials and supplies inventory
• Other Financial Data<ul style="list-style-type: none">- Current financial statements- Separate accounting for each business unit- Depreciation expense- Asset values and replacement costs
• Operating Data<ul style="list-style-type: none">- Certain operational statistics | <ul style="list-style-type: none">Financial Management Systems Group / Capital Expend. PlanningMaterials Management Systems Group / Materials Invent. Control
Financial Management Systems Group / Financial ReportingFinancial Management Systems Group / General AccountingProperty Records Systems GroupProperty Records Systems Group
Financial Management Systems Group / Fin. and Regulatory Acctg. |
|---|---|

FINANCIAL MANAGEMENT SYSTEMS
PRESENTATION OF FINANCIAL FORECASTING MODEL

3. What information can long-term financial forecasts provide?

Long-term financial forecasts can serve as a useful macro planning tool, providing a high level overview of the company's future financial performance.

- **FOR GENCO MANAGEMENT:**
 - Determine cash flows from operations
 - Plan capital expenditures on plant and equipment, and determine other investment requirements
 - Determine net financing requirements and evaluate financing options (debt and equity)

- **FOR INVESTORS:**
 - Potential investors rely on financial statements prepared in accordance with International Accounting Standards (IAS) for the financial information needed to determine their investment decisions. They also rely on financial forecasts for projections of future financial information.

 - **Lenders:**
 - Debt coverage ratio: Ratio of cash available for debt service to the interest and principal payments due.
 - Other indicators of the current and future financial strength of the company: Debt-equity ratio, Liquidity ratios (e.g., current assets / current liabilities)

 - **Equity Investors:**
 - Rates of return: Profit margin, Return on Equity, Return on Investment
 - Free cash flow: Cash flows after debt service, available for capital expenditures and payouts to equity (dividends)

FINANCIAL MANAGEMENT SYSTEMS
PRESENTATION OF FINANCIAL FORECASTING MODEL

3. What information can long-term financial forecasts provide?

• **INCOME FORECAST**

- Revenue projections
- Cost projections
- Net income, Net income per share
- Rates of return: Profit margin, Return on equity
- Cash available for debt service
- Debt coverage ratio

• **CASH FLOW FORECAST**

- Cash flows after debt service:
 - Cash available for current assets (e.g., inventories) and current liabilities (e.g., accounts payable)
 - Cash available for capital expenditures on plant and equipment
 - Cash available for other investment activities
 - Net financing requirements and sources of financing

• **BALANCE SHEET FORECAST**

- Debt-equity ratio
- Liquidity ratios

FINANCIAL MANAGEMENT SYSTEMS
PRESENTATION OF FINANCIAL FORECASTING MODEL

4. What are the objectives of the financial forecasting model?

The financial forecasting model was developed for a sample GENCO ("*Gencoenergo*"). It was designed to resemble the financial situation of the GENCOs and the economics of the Energomarket, but it is meant primarily for illustrative purposes. The model was developed to:

- Illustrate the types of financial planning information that will be needed by GENCO management and by potential investors.
- Show an example of the potential uses of financial and operational data from an Integrated Financial Management System.
- Serve as a potential financial planning tool for the GENCOs.

FINANCIAL MANAGEMENT SYSTEMS
PRESENTATION OF FINANCIAL FORECASTING MODEL

5. What are the basic assumptions of the financial forecasting model?

The basic assumptions for the Gencoenergo financial forecasts are shown below. These assumptions were chosen for illustrative purposes.

- **Capacity:** Gencoenergo has 3 plants totalling 4,800 MW.
- **Wholesale Purchase Price:** WPP = \$19.31 per Mwh (SMP=\$18.50 per Mwh, AP= \$0.81 per Mwh). WPP stays constant through 1997, then grows at 1% to 2% per year.
- **Fuel Cost:** \$17.00 per Mwh. Fuel cost stays constant through 1997, then grows at 1% per year.
- **Other Operating Costs:** \$1.59 per Mwh, or approximately 9% of fuel costs. The variable portion of these costs is assumed to be 20%.
- **Availability:** 80% for two of the plants. 60% for the third plant, gradually increasing to 75% by 2004.
- **Dispatch:** Two of the plants are dispatched 24 hours per day. One of the plants is used during peak loads, and is dispatched 16 hours per day in winter and 8 hours per day in summer.
- **Debt:** Gencoenergo has initial debt of KRB 1.3 trillion.

"Gencoenergo"

CONSOLIDATED INCOME STATEMENT

(Figures in constant 1995 KRBs millions)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	<i>estimated</i>									
OPERATING REVENUE										
Payments for Energy Generated	84,954,847	84,954,847	84,954,847	85,483,605	87,144,575	88,849,527	91,048,601	98,339,796	101,475,677	104,738,073
Other Payments from Energomarket	849,548	849,548	849,548	854,836	871,446	888,495	910,486	983,398	1,014,757	1,047,381
Total Operating Revenues	85,804,396	85,804,396	85,804,396	86,338,441	88,016,020	89,738,022	91,959,087	99,323,194	102,490,434	105,785,453
OPERATING EXPENSES										
Fuel	74,791,942	74,791,942	74,791,942	75,257,447	76,719,719	78,220,712	79,761,857	85,724,827	87,591,199	89,520,870
Operations and Maintenance	6,378,762	6,352,324	6,326,018	6,306,634	6,290,841	6,275,421	6,260,383	6,307,141	6,295,621	6,284,704
General and Administrative	1,594,691	1,588,081	1,581,504	1,576,659	1,572,710	1,568,855	1,565,096	1,576,785	1,573,905	1,571,176
Total Operating Expenses	82,765,395	82,732,347	82,699,465	83,140,739	84,583,270	86,064,989	87,587,336	93,608,753	95,460,725	97,376,749
OPERATING INCOME - ENERGY	3,039,001	3,072,049	3,104,931	3,197,702	3,432,750	3,673,033	4,371,751	5,714,441	7,029,708	8,408,704
NON-ENERGY BUSINESS INCOME										
Non-Energy Business Revenues	413,827	579,126	744,295	872,978	888,124	903,682	919,667	982,892	1,002,338	1,022,456
Non-Energy Business Expenses	1,407,012	1,406,450	1,405,891	1,413,393	1,437,916	1,463,105	1,488,985	1,591,349	1,622,832	1,655,405
Net Income - Non-Energy Businesses	(993,185)	(827,323)	(661,596)	(540,415)	(549,791)	(559,422)	(569,318)	(608,457)	(620,495)	(632,949)
TOTAL OPERATING INCOME	2,045,816	2,244,725	2,443,336	2,657,288	2,882,959	3,113,611	3,802,433	5,105,984	6,409,214	7,775,755
DEPRECIATION, INTEREST, TAXES										
Depreciation,	226,766	228,378	240,349	254,202	269,115	285,215	302,120	502,814	554,911	608,391
Net Interest Expense	14,688	174,454	262,690	394,141	400,076	469,809	136,098	194,692	173,993	92,928
Payroll Taxes	2,073,098	2,064,505	2,055,956	2,049,656	2,044,523	2,039,512	2,034,625	2,049,821	2,046,077	2,042,529
Road Tax	673,379	673,110	672,843	676,433	688,169	700,225	712,611	761,601	776,668	792,257
Corporate Profits Tax	0	0	0	0	0	0	185,094	479,117	857,269	1,271,895
Total Depreciation, Interest, Taxes	2,987,931	3,140,448	3,231,838	3,374,432	3,401,884	3,494,761	3,370,547	3,988,045	4,408,919	4,808,000
NET INCOME	(942,115)	(895,723)	(788,502)	(717,144)	(518,925)	(381,151)	431,887	1,117,940	2,000,295	2,967,756

"Gencoenergo"

CONSOLIDATED STATEMENT OF CASH FLOWS

(Figures in constant 1995 KRBs millions)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	<i>estimated</i>	<i>estimated</i>	<i>estimated</i>	<i>estimated</i>	<i>estimated</i>	<i>estimated</i>	<i>estimated</i>	<i>estimated</i>	<i>estimated</i>	<i>estimated</i>
CASH FLOWS FROM OPERATING ACTIVITIES										
Net Income	(942,115)	(895,723)	(788,502)	(717,144)	(518,925)	(381,151)	431,887	1,117,940	2,000,295	2,967,756
Adjustments to Net Income:										
Depreciation	226,766	228,378	240,349	254,202	269,115	285,215	302,120	502,814	554,911	608,391
Changes in Current Assets and Liabilities:										
Accounts Receivable	(584,235)	429,022	429,022	(2,670)	(8,388)	(8,610)	(11,105)	(36,821)	(15,836)	(16,475)
Other Current Assets	(44,618)	(85,804)	0	(2,136)	(6,710)	(6,888)	(8,884)	(29,456)	(12,669)	(13,180)
Accounts Payable	1,353,093	(704,216)	(620,953)	(409,526)	12,983	13,335	(424,236)	24,086	7,408	7,664
Other Current Liabilities	111,373	(41,416)	(33)	441	1,443	1,482	(42,271)	3,011	926	958
Net Cash Flows from Operations	120,264	(1,069,760)	(740,117)	(876,833)	(250,483)	(96,616)	247,510	1,581,573	2,535,035	3,555,113
CASH FLOWS FROM INVESTING ACTIVITIES										
Capital Expenditures on Plant and Equipment	(32,375)	(325,365)	(341,633)	(358,715)	(376,651)	(395,483)	(5,813,601)	(1,411,874)	(1,397,756)	(1,354,270)
Capital Expenditures on CWIP, Other Property	(2,703)	(5,890)	(12,594)	(15,059)	(18,015)	(21,560)	(37,922)	(32,189)	(37,224)	(44,112)
Net Increase in Inventories	(48,064)	(64,286)	(623,494)	(635,143)	(676,139)	(702,131)	(3,398,718)	(1,213,157)	(902,766)	(940,548)
Purchase of Financial Investments	0	0	0	0	0	0	0	0	0	0
Proceeds from Sale of Property	0	0	0	0	0	0	0	0	0	0
Proceeds from Sale of Investments	0	0	0	0	0	0	0	0	0	0
Net Cash Flows from (used in) Investing Activities	(83,142)	(395,541)	(977,721)	(1,008,916)	(1,070,804)	(1,119,174)	(9,250,241)	(2,657,221)	(2,337,746)	(2,338,930)
CASH FLOWS FROM FINANCING ACTIVITIES										
Reacquisition of Common Stock	0	0	0	0	0	0	0	0	0	0
Payment of Dividends to Common Stock	0	0	0	0	0	0	0	0	0	0
Repayment of Long-Term Debt	0	0	0	0	0	0	(4,750,000)	0	(200,000)	(1,200,000)
Issuance of Common Stock	0	0	0	0	0	0	13,793,863	0	0	0
Issuance of Long-Term Debt	0	0	3,300,000	1,900,000	1,300,000	1,200,000	0	1,050,000	0	0
Net Increase in Short-Term Loans	0	1,500,000	(1,500,000)	0	0	0	0	0	0	0
Net Cash Flows from (used in) Financing Activities	0	1,500,000	1,800,000	1,900,000	1,300,000	1,200,000	9,043,863	1,050,000	(200,000)	(1,200,000)
Net Increase (Decrease) in Cash and Equivalents	37,122	34,699	82,162	14,251	(21,287)	(15,790)	41,132	(25,648)	(2,711)	16,183
Cash and Working Capital - Beginning of Year	3,244	40,366	75,065	157,227	171,477	150,191	134,401	175,532	149,885	147,174
Cash and Working Capital - End of Year	<u>40,366</u>	<u>75,065</u>	<u>157,227</u>	<u>171,477</u>	<u>150,191</u>	<u>134,401</u>	<u>175,532</u>	<u>149,885</u>	<u>147,174</u>	<u>163,357</u>

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"Gencoenergo"

CONSOLIDATED BALANCE SHEET

(Figures in constant 1995 KRBs millions)

	31-Dec-94 "actual"	1-Jan-95 "actual"	1995 estimated	1996 estimated	1997 estimated	1998 estimated	1999 estimated	2000 estimated	2001 estimated	2002 estimated	2003 estimated	2004 estimated
ASSETS												
PLANT AND EQUIPMENT												
Plant and Equipment in Service	375,412	6,474,923	6,507,298	6,832,662	7,174,296	7,533,010	7,909,661	8,305,144	14,118,745	15,530,619	16,928,375	18,282,645
Less: Accumulated Depreciation	(112,139)	(1,946,105)	(2,161,936)	(2,378,846)	(2,606,601)	(2,845,744)	(3,096,845)	(3,360,500)	(3,637,338)	(4,107,963)	(4,625,650)	(5,189,929)
Construction Work in Progress	53,119	53,119	55,775	61,352	73,622	88,347	106,016	124,564	159,011	184,121	218,491	259,244
Less: Accumulated Depreciation	(13,280)	(13,280)	(23,903)	(35,058)	(47,329)	(62,053)	(79,723)	(100,926)	(125,839)	(157,641)	(194,465)	(238,163)
Other Property	9,342	9,342	9,389	9,702	10,025	10,359	10,705	11,062	11,615	12,002	12,402	12,815
Less: Accumulated Depreciation	(1,868)	(1,868)	(2,180)	(2,493)	(2,816)	(3,150)	(3,496)	(3,853)	(4,221)	(4,608)	(5,008)	(5,422)
Net Plant and Equipment	310,586	4,576,131	4,384,442	4,487,320	4,601,197	4,720,769	4,846,319	4,975,491	10,521,973	11,456,529	12,334,144	13,121,190
INVENTORY												
Fuel Inventory	513,129	513,129	560,940	623,266	1,246,532	1,881,436	2,557,324	3,259,196	6,646,821	7,858,109	8,759,120	9,698,094
Materials and Operating Supplies	6,761	6,761	7,015	8,975	9,202	9,442	9,693	9,951	21,044	22,913	24,668	26,242
Total Inventory	519,890	519,890	567,955	632,241	1,255,735	1,890,878	2,567,017	3,269,147	6,667,865	7,881,022	8,783,788	9,724,337
CURRENT ASSETS												
Accounts Receivable, not due yet	15,615	15,615	429,022	429,022	429,022	431,692	440,080	448,690	459,795	496,616	512,452	528,927
Accounts Receivable, past due	687,216	687,216	858,044	429,022	0	0	0	0	0	0	0	0
Cash and Working Capital	3,244	3,244	40,366	75,065	157,227	171,477	150,191	134,401	175,532	149,885	147,174	163,357
Other Current Assets	212,795	212,795	257,413	343,218	343,218	345,354	352,064	358,952	367,836	397,293	409,962	423,142
Financial Investments	0	0	0	0	0	0	0	0	0	0	0	0
Total Current Assets	918,870	918,870	1,584,845	1,276,326	929,466	948,523	942,335	942,043	1,003,164	1,043,794	1,069,588	1,115,426
TOTAL ASSETS	1,749,346	6,014,891	6,537,242	6,395,887	6,786,398	7,560,170	8,355,671	9,186,681	18,193,002	20,381,345	22,187,520	23,960,952
CAPITALIZATION AND LIABILITIES												
EQUITY												
Revaluation Surplus	0	4,265,545	4,265,545	4,265,545	4,265,545	4,265,545	4,265,545	4,265,545	4,265,545	4,265,545	4,265,545	4,265,545
Charter Capital	808,871	808,871	808,871	808,871	808,871	808,871	808,871	808,871	808,871	808,871	808,871	808,871
Common Stock (at par value)	0	0	0	0	0	0	0	0	1,000,000	1,000,000	1,000,000	1,000,000
Additional Paid-In Capital	0	0	0	0	0	0	0	0	12,793,863	12,793,863	12,793,863	12,793,863
Retained Earnings - Appropriations	248,327	248,327	248,327	248,327	248,327	248,327	248,327	248,327	248,327	248,327	248,327	248,327
Retained Earnings - Unappropriated	(584,096)	(584,096)	(1,526,211)	(2,421,934)	(3,210,436)	(3,927,580)	(4,446,505)	(4,830,312)	(4,401,346)	(3,290,100)	(1,292,259)	1,672,551
Total Equity	473,102	4,738,647	3,796,532	2,900,809	2,112,307	1,395,163	876,238	492,431	14,715,260	15,826,506	17,824,347	20,789,157
LONG-TERM LIABILITIES												
Long-Term Debt	267	267	267	267	3,300,267	5,200,267	6,500,267	7,700,267	2,950,267	4,000,267	3,800,267	2,600,267
CURRENT LIABILITIES												
Accounts Payable, not due yet	225,974	225,974	413,827	330,929	330,798	332,563	338,333	344,260	350,349	374,435	381,843	389,507
Accounts Payable, past due	903,895	903,895	2,069,135	1,447,816	826,995	415,704	422,916	430,325	0	0	0	0
Short-Term Loans	133,333	133,333	133,333	1,633,333	133,333	133,333	133,333	133,333	133,333	133,333	133,333	133,333
Other Current Liabilities	12,775	12,775	124,148	82,732	82,699	83,141	84,583	86,065	43,794	46,804	47,730	48,688
Total Current Liabilities	1,275,977	1,275,977	2,740,443	3,494,811	1,373,825	964,740	979,166	993,983	527,476	554,572	562,906	571,528
TOTAL CAPITALIZATION AND EQUITY	1,749,346	6,014,891	6,537,242	6,395,887	6,786,398	7,560,170	8,355,671	9,186,681	18,193,003	20,381,346	22,187,520	23,960,953

"Gencoenergo"

STATISTICS FROM FINANCIAL FORECASTS

(Figures in constant 1995 KRBs millions)

STATISTICS FROM INCOME STATEMENT		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
		<i>estimated</i>									
Net Income											
Net Income	(KRB-mil)	(942,115)	(895,723)	(788,502)	(717,144)	(518,925)	(381,151)	431,887	1,117,940	2,000,295	2,967,756
Growth in Net Income	(%)	-	-	-	-	-	-	-	158.9%	78.9%	48.4%
Shares Outstanding											
Net Income Per Share	(KRB-mil)	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
		(0.94)	(0.90)	(0.79)	(0.72)	(0.52)	(0.38)	0.43	1.12	2.00	2.97
Share Price @ 4 P/E Ratio	(KRB-mil)	-	-	-	-	-	-	1.73	4.47	8.00	11.87
Debt Coverage											
Net Interest Expense	(KRB-mil)	14,688	174,454	262,690	394,141	400,076	469,809	136,098	194,692	173,993	92,928
Cash Available for Debt Service	(KRB-mil)	(700,661)	(492,891)	(285,463)	(68,802)	150,266	373,874	1,055,198	2,294,563	3,586,468	4,940,969
Debt Coverage Ratio	(Ratio)	(47.70)	(2.83)	(1.09)	(0.17)	0.38	0.80	7.75	11.79	20.61	53.17
Operating Margin											
Memo: Wholesale Purchase Price	(\$ / Mwh)	19.31	19.31	19.31	19.31	19.50	19.70	19.99	20.29	20.70	21.11
Memo: Composite Heat Cost	(\$ / Mwh)	17.00	17.00	17.00	17.00	17.17	17.34	17.52	17.69	17.87	18.05
Memo: Operating Margin	(\$ / Mwh)	2.31	2.31	2.31	2.31	2.33	2.36	2.48	2.60	2.83	3.07
Memo: Operating Margin	(%)	11.96%	11.96%	11.96%	11.96%	11.96%	11.96%	12.40%	12.83%	13.68%	14.53%

"Gencoenergo"

STATISTICS FROM FINANCIAL FORECASTS

(Figures in constant 1995 KRBs millions)

STATISTICS FROM BALANCE SHEET	31-Dec-94 "actual"	1-Jan-95 "actual"	1995 estimated	1996 estimated	1997 estimated	1998 estimated	1999 estimated	2000 estimated	2001 estimated	2002 estimated	2003 estimated	2004 estimated
Equity	473,102	4,738,647	3,796,532	2,900,809	2,112,307	1,395,163	876,238	492,431	14,715,260	15,826,506	17,824,347	20,789,157
Long-Term Debt	267	267	267	267	3,300,267	5,200,267	6,500,267	7,700,267	2,950,267	4,000,267	3,800,267	2,600,267
Total Capitalization	473,369	4,738,914	3,796,799	2,901,076	5,412,574	6,595,430	7,376,505	8,192,698	17,665,527	19,826,773	21,624,614	23,389,424
Debt % of Capitalization	0.06%	0.01%	0.01%	0.01%	60.97%	78.85%	88.12%	93.99%	16.70%	20.18%	17.57%	11.12%
Equity % of Capitalization	99.94%	99.99%	99.99%	99.99%	39.03%	21.15%	11.88%	6.01%	83.30%	79.82%	82.43%	88.88%
Debt-Equity Ratio	0.00	0.00	0.00	0.00	1.56	3.73	7.42	15.64	0.20	0.25	0.21	0.13
Liquidity Ratio	0.72	0.72	0.58	0.37	0.68	0.98	0.96	0.95	1.90	1.88	1.90	1.95

"Gencoenergo"

LIST OF ASSUMPTIONS

*NOTE: Numbers in Bold Italics are formulas and/or are calculated in other sheets - Do not alter them on this sheet

REVENUE ASSUMPTIONS	Units	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Current Energy Payments											
Average System Marginal Price	(\$ per Mwh)	\$18.50									
Average Availability Payment	(\$ per Mwh)	\$0.81									
Average Wholesale Purchase Price (WPP)	(\$ per Mwh)	\$19.31									
Future Energy Payments											
Rate of Increase in WPP	(%)	0.00%	0.00%	0.00%	1.00%	1.00%	1.50%	1.50%	2.00%	2.00%	2.00%
Average Wholesale Purchase Price (WPP)	(\$ per Mwh)	\$19.31	\$19.31	\$19.31	\$19.31	\$19.50	\$19.70	\$19.99	\$20.29	\$20.70	\$21.11
Other Payments from Energomarket	(% of WPP)	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Exchange Rate											
Current 1995 Exchange Rate	(KRBs/\$US)	153,000									

CURRENT GENERATION ASSUMPTIONS

Plant 1 - Capacity	2400 (MW)													
Plant 2 - Capacity	1200 (MW)													
Plant 3 - Capacity	1200 (MW)													
	4800 (MW)													
Plant 1														
Hours Despatched per Day	(Hours)	24.00	24	24	24	24	24	24	24	24	24	24	24	24
Generation Factor	(%)	80.08%	90.00%	84.00%	81.00%	80.00%	75.00%	75.00%	75.00%	75.00%	75.00%	80.00%	81.00%	90.00%
Plant 2														
Hours Despatched per Day	(Hours)	24.00	24	24	24	24	24	24	24	24	24	24	24	24
Generation Factor	(%)	80.08%	90.00%	84.00%	81.00%	80.00%	75.00%	75.00%	75.00%	75.00%	75.00%	80.00%	81.00%	90.00%
Plant 3														
Hours Despatched per Day	(Hours)	13.33	16	16	16	12	12	8	8	12	12	16	16	16
Generation Factor	(%)	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%

FUTURE GENERATION ASSUMPTIONS

	Units	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Plant 1											
Growth in Hours Despatched	(%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Average Hours Despatched per Day	(Hrs)	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00
Growth in Generation Factor	(%)	0.00%	0.00%	0.50%	0.50%	0.50%	0.50%	5.00%	0.50%	0.50%	0.50%
Generation Factor	(%)	80.08%	80.08%	80.08%	80.48%	80.88%	81.28%	81.69%	85.77%	86.20%	86.63%
Plant 2											
Growth in Hours Despatched	(%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Average Hours Despatched per Day	(Hrs)	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00
Growth in Generation Factor	(%)	0.00%	0.00%	0.50%	0.50%	0.50%	0.50%	5.00%	0.50%	0.50%	0.50%
Generation Factor	(%)	80.08%	80.08%	80.08%	80.48%	80.88%	81.28%	81.69%	85.77%	86.20%	86.63%
Plant 3											
Growth in Hours Despatched	(%)	0.00%	0.00%	1.00%	1.00%	1.00%	1.00%	5.00%	2.00%	2.00%	2.00%
Average Hours Despatched per Day	(Hrs)	13.33	13.33	13.33	13.46	13.59	13.73	13.87	14.56	14.85	15.15
Growth in Generation Factor	(%)	0.00%	0.00%	0.50%	3.00%	3.00%	3.00%	10.00%	3.00%	3.00%	3.00%
Generation Factor	(%)	60.00%	60.00%	60.00%	60.30%	62.11%	63.97%	65.89%	72.48%	74.65%	76.89%

"Gencoenergo"
LIST OF ASSUMPTIONS

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FUEL COST ASSUMPTIONS	Units	1996	1998	1997	1998	1999	2000	2001	2002	2003	2004
Plant 1											
Coal %	(%)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Mazut %	(%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Gas %	(%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Coal Generation Cost	(\$ / Mwh)	\$17.00	\$17.00	\$17.00	\$17.00	\$17.17	\$17.34	\$17.52	\$17.69	\$17.87	\$18.05
Growth in Coal Price	(%)	0.00%	0.00%	0.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Mazut Generation Cost	(\$ / Mwh)	-	-	-	-	-	-	-	-	-	-
Growth in Mazut Price	(%)	-	-	-	-	-	-	-	-	-	-
Gas Generation Cost	(\$ / Mwh)	-	-	-	-	-	-	-	-	-	-
Growth in Gas Price	(%)	-	-	-	-	-	-	-	-	-	-
Plant 2											
Coal %	(%)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Mazut %	(%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Gas %	(%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Coal Generation Cost	(\$ / Mwh)	\$17.00	\$17.00	\$17.00	\$17.00	\$17.17	\$17.34	\$17.52	\$17.69	\$17.87	\$18.05
Growth in Coal Price	(%)	0.00%	0.00%	0.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Mazut Generation Cost	(\$ / Mwh)	-	-	-	-	-	-	-	-	-	-
Growth in Mazut Price	(%)	-	-	-	-	-	-	-	-	-	-
Gas Generation Cost	(\$ / Mwh)	-	-	-	-	-	-	-	-	-	-
Growth in Gas Price	(%)	-	-	-	-	-	-	-	-	-	-
Plant 3											
Coal %	(%)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Mazut %	(%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Gas %	(%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Coal Generation Cost	(\$ / Mwh)	\$17.00	\$17.00	\$17.00	\$17.00	\$17.17	\$17.34	\$17.52	\$17.69	\$17.87	\$18.05
Growth in Coal Price	(%)	0.00%	0.00%	0.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Mazut Generation Cost	(\$ / Mwh)	-	-	-	-	-	-	-	-	-	-
Growth in Mazut Price	(%)	-	-	-	-	-	-	-	-	-	-
Gas Generation Cost	(\$ / Mwh)	-	-	-	-	-	-	-	-	-	-
Growth in Gas Price	(%)	-	-	-	-	-	-	-	-	-	-
NON-FUEL OPERATING COSTS											
Plant 1											
Variable Non-Fuel Operating Expenses	(\$ / Mwh)	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31
Fixed Non-Fuel Operating Expenses	(\$ / MW)	\$9,000	\$8,955	\$8,910	\$8,866	\$8,821	\$8,777	\$8,733	\$8,690	\$8,646	\$8,603
Operations and Maintenance	(% of Non-	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%
General and Administrative	(% of Non-	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Plant 2											
Variable Non-Fuel Operating Expenses	(\$ / Mwh)	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31
Fixed Non-Fuel Operating Expenses	(\$ / MW)	\$9,000	\$8,955	\$8,910	\$8,866	\$8,821	\$8,777	\$8,733	\$8,690	\$8,646	\$8,603
Operations and Maintenance	(% of Non-	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%
General and Administrative	(% of Non-	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Plant 3											
Variable Non-Fuel Operating Expenses	(\$ / Mwh)	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31	\$0.31
Fixed Non-Fuel Operating Expenses	(\$ / MW)	\$9,000	\$8,955	\$8,910	\$8,866	\$8,821	\$8,777	\$8,733	\$8,690	\$8,646	\$8,603
Operations and Maintenance	(% of Non-	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%
General and Administrative	(% of Non-	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%

"Gencoenergo"
LIST OF ASSUMPTIONS

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NON-ENERGY BUSINESS ASSUMPTIONS	Units	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Social Services											
Social Services - Revenues	(% of Exp)	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
Social Services - Expenses	(% of Exp)	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Memo: Profit Margin	(%)	-400.00%	-400.00%	-400.00%	-400.00%	-400.00%	-400.00%	-400.00%	-400.00%	-400.00%	-400.00%
Agricultural Businesses											
Agricultural Businesses - Revenues	(% of Exp)	0.20%	0.30%	0.40%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Agricultural Businesses - Expenses	(% of Exp)	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%
Memo: Profit Margin	(%)	-100.00%	-33.33%	0.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Other Businesses											
Other Businesses - Revenues	(% of Exp)	0.10%	0.20%	0.30%	0.35%	0.35%	0.35%	0.35%	0.35%	0.35%	0.35%
Other Businesses - Expenses	(% of Exp)	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%
Memo: Profit Margin	(%)	-200.00%	-50.00%	0.00%	14.29%	14.29%	14.29%	14.29%	14.29%	14.29%	14.29%

*NOTE: Percentages shown are percents of Consolidated Operating Expenses for Gencoenergo.

TAX ASSUMPTIONS	Units	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Corporate Profits Tax											
Corporate Profits Tax Rate	(%)	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%
Payroll Taxes											
Payroll as % of Non-Fuel Operating Expenses	(% N-F Exp)	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
Social Security Tax Rate	(%)	37.00%	37.00%	37.00%	37.00%	37.00%	37.00%	37.00%	37.00%	37.00%	37.00%
Employment Tax Rate	(%)	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Chernobyl Tax Rate	(%)	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Total Payroll Tax Rate	(%)	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%	52.00%
Road Tax											
Road Tax Rate	(% of COG)	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%
Value Added Tax											
Value Added Tax Rate	(% of Sales)	16.67%	16.67%	16.67%	16.67%	16.67%	16.67%	16.67%	16.67%	16.67%	16.67%

*NOTE: Value Added Tax is not included in this model. It is assumed that VAT would be a pass-through that would increase the System Marginal Price, and thus revenues, by an amount to offset the tax.

NET INTEREST EXPENSE ASSUMPTIONS	Units	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Interest Rates											
Short-Term Lending Rate / Investment Earnings	(%)	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Short-Term Borrowing Rate	(%)	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Long-Term Borrowing Rate	(%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Interest Earnings on Short-Term Cash Balances											
Length of Float from Monthly Revenues	(Days)	0	0	0	0	14	14	14	14	14	14

"Gencoenergo"
LIST OF ASSUMPTIONS

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BALANCE SHEET ASSUMPTIONS

<i>Plant and Equipment, CWIP, Other Property</i>	Units	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Current Net Asset Value of Plant (revalued)	(\$ per MW)	\$200,000									
Current Value of Other Operating Equipment (%)	(% of Plant)	5.00%									
Current Value of CWIP (%)	(% of Plant)	0.80%									
Current Value of Other Property (%)	(% of Plant)	0.50%									
<i>Other Assets</i>	Units	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Fuel Inventory	(Months)	0.09	0.1	0.2	0.3	0.4	0.50	1.00	1.10	1.20	1.30
Materials and Supplies	(% of Net Pl	0.16%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
Accounts Receivable, not due yet	(% of Revs)	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Accounts Receivable, past due	(% of 1995	2.00%	2.00%	-	-	-	-	-	-	-	-
Other Current Assets	(% of Revs-	0.30%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%
Accounts Payable, not due yet	(% of Exp)	0.50%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%
Accounts Payable, past due	(% of Exp)	2.50%	1.75%	1.00%	0.50%	0.50%	0.50%	0.00%	0.00%	0.00%	0.00%
Other Current Liabilities	(% of Exp)	0.15%	0.10%	0.10%	0.10%	0.10%	0.10%	0.05%	0.05%	0.05%	0.05%

CAPITAL EXPENDITURES PLANNING

<i>Plant and Equipment, CWIP, Other Property</i>	Units	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Investment Rate - Plant and Equipment	(%)	0.50%	5.00%	5.00%	5.00%	5.00%	5.00%	70.00%	10.00%	9.00%	8.00%
Investment Rate - CWIP	(%)	5.00%	10.00%	20.00%	20.00%	20.00%	20.00%	30.00%	20.00%	20.00%	20.00%
Investment Rate - Other Property	(%)	0.50%	3.33%	3.33%	3.33%	3.33%	3.33%	5.00%	3.33%	3.33%	3.33%

DEPRECIATION ASSUMPTIONS

<i>Plant and Equipment, CWIP, Other Property</i>	Units	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Useful Life of Plant & Equip	(Years)	30									
Useful Life of CWIP	(Years)	5									
Useful Life of Other Property	(Years)	30									
Depreciation Rate - Plant & Equip	(%)	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%
Depreciation Rate - CWIP	(%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Depreciation Rate - Other Property	(%)	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%