# SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

# **FORM 20-F**

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 1998

Commission file number: 001-14668

# COMPANHIA PARANAENSE DE ENERGIA – COPEL

(Exact Name of Registrant as Specified in Its Charter)

Energy Company of Paraná (Translation of Registrant's Name into English) The Federative Republic of Brazil
(Jurisdiction of Incorporation or Organization)

Rua Coronel Dulcídio, 800 80420-170 Curitiba, Paraná, Brazil

(Address of Principal Executive Offices)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

## Title of Each Class

Class B Shares, without par value\* American Depositary Shares (as evidenced by American Depositary Receipts), each representing 1,000 Class B Shares Name of Each Exchange On Which Registered

New York Stock Exchange New York Stock Exchange

Securities registered or to be registered pursuant to Section 12(g) of the Act: None Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None Indicate the number of outstanding shares of each of the Issuer's classes of capital or common stock as of the close of the period covered by this Annual Report:

145,031,081 thousand Common Shares, without par value 640,949 thousand Class A Preferred Shares, without par value 127,983,346 thousand Class B Preferred Shares, without par value

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days.

Yes X No

Indicate by check mark which financial statement item the Registrant has elected to follow.

Item 17 \_\_\_ Item 18 \_X

<sup>\*</sup> Not for trading, but only in connection with the listing of American Depositary Shares on the New York Stock Exchange.

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#### PRESENTATION OF FINANCIAL INFORMATION

In this Annual Report, Companhia Paranaense de Energia – COPEL, a corporation organized under the laws of the Federative Republic of Brazil ("Brazil"), is referred to as the "Company" or "COPEL."

References to (i) the "real," "reais" or "R\$" are to Brazilian reais (plural) and the Brazilian real (singular) and (ii) "U.S. dollars," "dollars" or "US\$" are to United States dollars. All amounts in Brazilian currencies that existed prior to the adoption of the real as the Brazilian currency on July 1, 1994 have been restated in reais. The Company's audited financial statements as of December 31, 1997 and 1998 and for the years ended December 31, 1996, 1997 and 1998 (the "Financial Statements") contained in this Annual Report are presented in reais. For periods and dates before January 1, 1998, the Financial Statements and, unless otherwise specified, the other financial data included herein recognize certain effects of inflation and are restated in constant reais of December 31, 1997 purchasing power. The Company used the IGP-M inflation index to prepare its financial statements for 1996 and the IGP-DI inflation index to prepare its financial statements for 1997. For subsequent periods and dates, the Financial Statements and such other data are presented in nominal reais and do not recognize effects of inflation. See "Selected Financial Data."

Certain terms are defined the first time they are used in this Annual Report. The "Index of Defined Terms" that begins on page 59 lists those terms and where they are defined. As used herein, all references to "GW" and "GWh" are to gigawatts and gigawatt hours, respectively, references to "kW" and "kWh" are to kilowatts and kilowatt hours, respectively, and references to "MW" and "MWh" are to megawatts and megawatt hours, respectively. These and other technical terms are defined in the Technical Glossary on page 60.

# FORWARD-LOOKING INFORMATION

This Annual Report contains forward-looking statements. The Company and its representatives may also make forward-looking statements in press releases and oral statements. Statements that are not statements of historical fact, including statements about the beliefs and expectations of the Company's management, are forward-looking statements. The words "anticipates," "believes," "estimates," "expects," "forecasts," "intends," "plans," "predicts," "projects" and "targets" and similar words are intended to identify these statements, which necessarily involve known and unknown risks and uncertainties. Known risks and uncertainties include those resulting from the restructuring of the Brazilian electric power industry, increasing competition in the industry from both new entrants and recently privatized electric power companies, the anticipated restructuring and privatization of the Company and the Company's relationship with the government of the State of Paraná, as well as those relating to the cost and availability of financing, the performance of the Brazilian economy generally, the levels of exchange rates between Brazilian and foreign currencies and the Federal Government's regulatory policy. Accordingly, the actual results of operations of the Company may be different from the Company's current expectations, and the reader should not place undue reliance on these forward-looking statements. Forwardlooking statements speak only as of the date they are made, and the Company does not undertake any obligation to update them in light of new information or future developments.

# Item 1. Description of Business

#### General

COPEL is a fully integrated electric power company engaged in the generation, transmission and distribution of electricity in the Brazilian State of Paraná ("Paraná"), pursuant to concessions granted by an agency of Brazil's federal government (the "Federal Government"). At March 1999, the Company generated electricity at 17 hydroelectric plants and one thermoelectric plant, with total installed capacity of 3,615 MW (approximately 99% of which is hydroelectric). COPEL is the seventh-largest power generation company in Brazil, determined on the basis of installed capacity (counting each of the generation subsidiaries of Centrais Elétricas Brasileiras S.A. – Eletrobrás ("Eletrobrás"), the Brazilian federally-owned electric power company, as a separate entity).

COPEL holds concessions to distribute electricity in approximately 98% of the 399 municipalities in Paraná and in the municipality of Porto União in the State of Santa Catarina. At December 31, 1998, COPEL owned and operated 6,352 kilometers of transmission lines and 145,418 kilometers of distribution lines, constituting the fifth-largest distribution network in Brazil. Of the electricity supplied by COPEL to final customers during 1998, 39.5% was to industrial customers, 27.9% to residential customers, 15.1% to commercial customers and 17.5% to rural and other customers. COPEL does not have competitors in the distribution of electricity in the areas covered by its concessions. However, the Brazilian electricity sector is undergoing extensive restructuring of the regulatory system, as a result of which COPEL will be subject to increasing competition in the future. See "—Legal and Regulatory Matters—Competition."

The goals of the Company's management include improving and expanding the Company's transmission and distribution systems, increasing operating efficiencies and expanding the Company's generating capacity. To achieve these goals, the Company will continue to establish partnerships with private companies through consortia or joint ventures. The Company will also continue to diversify its operations by entering businesses where the Company's management feels it can create operating efficiencies by combining and streamlining certain operations. For example, the Company has purchased interests in telecommunications and sanitation companies, already decreasing its expenses by combining operations in, for example, information technology. The Company is also entering into new businesses that enable it to exploit assets the Company has typically only used internally. For example, the Company is using its telephone system to create revenues by providing internet services and limited telecommunications services. See "—Operations of COPEL—Other Activities."

## **Historical Background**

COPEL was formed in 1954 by the government of Paraná (the "State Government") to engage in the generation, transmission and distribution of electricity, as part of Paraná's plan to bring the electric power sector under state control. Major expansion occurred in the early 1970s, when the Company acquired the principal private power companies located in Paraná. The period from 1970 to 1977 saw significant expansion of COPEL's transmission and distribution network and the connection of COPEL's network to networks in other states. In 1979, a change in state law permitted the Company to extend its generating activities to include production from sources other than hydroelectric plants. In 1994, shares of the Company were first registered for public trading in Brazil and, in July 1997, ADSs representing the Company's Class B Shares were listed on the New York Stock Exchange (the "NYSE"), in connection with the Company's global public offering of US\$575 million of ADSs and Class B Shares.

# **Relationship with the State Government**

The State of Paraná owns (directly and indirectly) approximately 59% of the common shares of the Company and, consequently, has the ability to control the election of the majority of the members of the Board of Directors, the appointment of senior management and the direction, future operations and business strategy of the Company. In December 1998, the Paraná state legislature adopted legislation providing for the privatization of the Company. See "—The Proposed Privatization of COPEL."

One of the significant assets of the Company is a receivable from the State Government in the amount of approximately R\$515.9 million at December 31, 1998. The receivable bears interest at an annual rate equal 6.65% and adjusted in accordance with the IGP-DI inflation index. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Impact of CRC Account." In 1998, COPEL prepaid R\$122 million of state value-added tax ("ICMS Tax") to be assessed on the Company's sales of electricity during 1999. The amount prepaid bears interest at a rate equal to the Brazilian interbank deposit rate plus two percent per year and is to be applied against the ICMS Tax in eight monthly installments beginning January 1999. See Note 9 to the Financial Statements.

### The Proposed Privatization of COPEL

In December 1998, the Paraná state legislature passed a law authorizing the corporate restructuring of COPEL and the sale of the State Government's controlling interest in the Company. The State Government is in the process of hiring financial advisors to help prepare the Company for privatization. In May 1999, the governor of Paraná created a committee to address the privatization of COPEL. The committee will have five members and will be responsible for recommending the structure for the sale, the timetable for the privatization process and the minimum price and conditions of payment. The governor of Paraná will have final approval over the committee's recommendations.

BNDES Participações S.A. – BNDESPAR ("BNDESPAR"), a wholly-owned subsidiary of Brazil's national development bank, owns approximately 26% of the common shares of the Company. Certain contractual arrangements have been entered into between the State Government and BNDESPAR regarding the latter's participation in the privatization of COPEL. See "Control of Registrant—Shareholders' Agreement."

The state law authorizing the privatization of COPEL requires that a portion of the common shares of the Company to be sold by the State Government be offered to COPEL's current and retired employees. The new controlling shareholder will also be required to maintain the benefits currently defered to employees by the Company's pension plan, Previdência e Assistência Social ("Fundação COPEL"), and to permit the employees to name one of the members of the Company's board of directors. See "—Employees."

## **Corporate Restructuring**

In January 1999, the Company's shareholders approved a proposal of the Company's board of drectors (the "Board of Directors") to restructure the operations of COPEL in accordance with the new regulatory framework for Brazil's electric power sector. Accordingly, COPEL has separated its operations into five business units, generation, transmission, distribution, information technology and telecommunications. The Company maintains separate accounts for each of these business units that began operating separately in May 1999. See Note 33 to the Financial Statements. The Company also holds interests in other entities. See "—Operations of COPEL—Other Activities."

### **Brazilian Political Environment**

The Brazilian political environment was marked by high levels of uncertainty after the country returned to civilian rule in 1985, ending 20 years of military government. The death of a President-elect in 1985 and the resignation of another President in the midst of impeachment proceedings in 1992, as well

as rapid turnover at and immediately below the cabinet level, adversely affected the implementation of consistent economic and monetary policies.

Fernando Henrique Cardoso, who was Finance Minister at the time of implementation of Brazil's latest economic stabilization plan (the "*Real* Plan"), was elected President of Brazil in October 1994 and, in October 1998, was reelected for an additional four-year term, which began in January 1999. President Cardoso is the leader of a coalition of six political parties that represents a majority in the federal Congress. His party, the Brazilian Social Democratic Party, holds the second largest number of seats in the coalition.

1999 to date has been marked by difficult relations between the Federal Government and certain state governments. In the 1998 elections for state governors, candidates from parties allied with the President's coalition prevailed in 21 of 27 states, including the State of Paraná. Opposition candidates won in six states, including the States of Rio de Janeiro and Rio Grande do Sul. In January 1999, the new Governor of the State of Minas Gerais announced that his state would suspend payments on its debt to the Federal Government for 90 days. The Governor of the State of Rio Grande do Sul subsequently obtained a court order permitting his state to make its debt payments into an escrow account, pending resolution of a request of seven states to renegotiate refinancing agreements they had reached with the Federal Government in 1997. The Federal Government has responded by seeking to withhold constitutionally-mandated transfers to the State of Minas Gerais. The Federal Government has notified certain international financial institutions that it will no longer guarantee those states' obligations to those institutions, leading the World Bank to suspend loans to the States of Minas Gerais and Rio Grande do Sul.

In February 1999, certain state governors pressed for a renegotiation of their states' refinancing agreements with the Federal Government. The President offered instead to make loans to the states to cover the costs of layoffs and pension reform and promised to review a law exempting exports from state taxes. The Federal Government has initiated negotiations with the World Bank to secure funding for such loans. The Federal Government is also proposing to refinance certain debt of Brazil's municipalities for a period of 30 years at a rate equivalent to 9% above the rate of inflation, in return for which the municipalities are to be required to cut costs sharply and adopt strict fiscal guidelines.

Conflicts between the Federal Government and state governments could complicate the passage of the government's fiscal reform package and longer-term fiscal measures, including a reform of the tax system, and Brazil's ability to meet the agreed targets under the country's agreements with the IMF.

### **Brazilian Economic Environment**

The Company's business, operations, financial condition and results of operations are dependent on general economic conditions in Brazil, and in particular on (i) economic growth and its impact on demand for electricity, (ii) the cost and availability of financing and (iii) exchange rates between Brazilian and foreign currencies.

For many years before the introduction of the *Real* Plan in late 1993, the Brazilian economy was extremely volatile. The Federal Government implemented a succession of programs intended to stabilize the economy and provide a basis for sustainable, noninflationary growth. Changes in monetary, credit, tariff and other policies were frequent and occasionally drastic. In particular, actions to control inflation, interest rates or consumption included freezing bank accounts, imposing capital controls, introducing high tariffs and other strong measures. Changes in policy, social instability and other political and economic developments, and the Brazilian government's responses to such developments, not infrequently had a material adverse effect on the Company's business, operations, financial condition and results of operations.

The Federal Government introduced the *Real* Plan in December 1993. The *Real* Plan is an economic stabilization program intended to reduce the rate of inflation by reducing certain public expenditures, collecting liabilities owed to the Federal Government, increasing tax revenues, continuing to pri-

vatize government-owned entities and introducing a new currency. The *real* was introduced as Brazil's currency on July 1, 1994, initially with an exchange rate of R\$1.00 to US\$1.00. The *real* appreciated through January 1995 and thereafter gradually declined in value against the dollar, reaching R\$1.2087 to US\$1.00 at December 31, 1998. Notwithstanding the success of the *Real* Plan in lowering inflation and stabilizing the Brazilian economy, the *Real* Plan has also led to economic slowdown, and a rise in unemployment in most regions and sectors of the economy.

The Asian financial crisis and the ripple effects of that crisis presented a serious challenge for Brazil. After reaching a historical high of US\$74.7 billion at April 30, 1998, Brazil's international reserves declined to US\$67.3 billion at August 31, US\$45.8 billion at September 30 and US\$42.4 billion at October 31.

In November 1998, in response to continuing pressure on the *real* and the rapid decline in the country's dollar reserves, Brazil negotiated a US\$41.5 billion loan package arranged by the International Monetary Fund (the "IMF"). Acceptance of the IMF package committed Brazil to implement a combination of spending cuts and tax increases. Brazil received the first installment of approximately US\$9.4 billion in two disbursements. Brazil's level of international reserves stabilized following the announcement of the support package, reaching US\$44.6 billion at December 31, 1998. At year-end 1998, the Commercial Market Rate stood at R\$1.2087 to US\$1.00.

After some initial progress in implementing a fiscal stabilization program announced in late 1998, the Federal Government encountered difficulties in implementing the program in Congress. In January 1999, the newly-inaugurated governor of the State of Minas Gerais announced that the State would temporarily suspend payments on the State's debt to the Federal Government. See "—Brazilian Political Environment." The Central Bank attempted a controlled devaluation of the *real* by widening the band within which the *real* was permitted to trade, but subsequent Central Bank intervention failed to keep the rate within the new band. On January 15, the Central Bank announced that the *real* would be permitted to float, with Central Bank intervention to take place only in times of extreme volatility. Both the level of international reserves and the value of the *real* continued to decline. At January 31, Brazil's international reserves stood at US\$36.1 billion and the Commercial Market Rate stood at R\$1.9832 to US\$1.00.

In the following weeks, the Federal Government had a series of legislative successes with its efforts to implement the expense reduction and revenue enhancement measures under its fiscal stabilization program. Brazil also began negotiations with the IMF on adjustments to the previously-agreed 1999-2001 economic program, and agreement was reached in March on new economic targets. Brazil received a second disbursement, of approximately US\$4.9 billion, from the IMF, followed by an additional US\$4.9 billion in bilateral loans under the IMF-led support package. Subsequent disbursements will depend on Brazil's ability to meet the agreed primary surplus targets and on Brazil's progress in implementing fiscal reforms. There can be no assurance that Brazil will be able to meet the primary surplus targets under its agreement with the IMF and, accordingly, that the full amount under the IMF-led support package will be available to Brazil.

After giving effect to the inflows from the IMF-led support package, Brazil's international reserves stood at US\$38.9 billion on April 8, 1999. The Commercial Market Rate stood at R\$1.7240 to US\$1.00 on May 31, 1999.

As a result of the foregoing events, GDP dropped 1.64% during the fourth quarter of 1998, reflecting declines of 6.45%, 2.45% and 0.65% in the agricultural, industrial and services sectors, respectively. GDP declined by 0.15% in the full year 1998, compared with 3.47% growth during the preceding year. Brazil's current account deficit continued to grow in 1998, reaching US\$35.2 billion for 1998, compared with a US\$33.4 billion deficit for the preceding year. At the end of the first quarter of 1999, the current account deficit stood at US\$3.5 billion, the result of a US\$535 million trade deficit and US\$3.4 billion in debt service during that quarter. Foreign direct investment inflows increased 52.6% in 1998, totaling US\$26.1 billion. Of that amount, 23.4%, or US\$6.1 billion, resulted from foreign participation in the

national privatization program. In the first two months of 1999, foreign direct investment inflows totaled US\$5.7 billion, bringing such investment to US\$29.7 billion in the twelve months ended February 28, 1999

### **Developments in Other Emerging Market Countries**

The Brazilian securities markets are influenced by economic and market conditions in other emerging market countries. Although economic conditions are different in each country, investors' reactions to developments in one country can have an effect on the securities of issuers in other countries, including Brazil. During 1998 and 1999, the international financial markets have experienced significant volatility, and a large number of financial market indices, including those in Brazil, have declined significantly.

The current market volatility in Latin American and other emerging market countries' securities markets have been attributed, at least in part, to the effects of the Asian and the Russian economic crisis. For example, the crisis in Asia in the fourth quarter of 1997 provoked a significant financial and economic crisis in Brazil. In August 1998, following the devaluation of the Russian ruble, Brazil again experienced substantial capital outflows and significant declines in its stock markets. See "—Brazilian Economic Environment."

There can be no assurance that the Brazilian securities markets will not continue to be affected negatively by events elsewhere, especially in emerging markets, or that such events will not adversely affect the prices of the Company's securities.

### **Inflation and Devaluation**

Brazil experienced extremely high and generally unpredictable rates of inflation and of devaluation of Brazilian currency for many years until the implementation of the *Real* Plan. Inflation itself, as well as certain governmental measures to combat inflation, and public speculation about possible future actions have also historically contributed to economic uncertainty in Brazil and to heightened volatility in the Brazilian securities markets. See "—Brazilian Economic Environment."

The following table sets forth the rate of Brazilian inflation, as measured by the IGP-M, and the devaluation of the Brazilian currency against the U.S. dollar during the periods indicated.

	Year ended December 31,			
_	1996	1997	1998	
<del>-</del>		(percentages)		
Inflation (IGP-M)	9.2	7.7	1.8	
Devaluation (Brazilian currency vs. US\$)	6.9	7.4	8.3	

Under the *Real* Plan, the rate of Brazilian inflation has decreased considerably since July 1994. The exchange rate between the *real* and the U.S. dollar remained relatively stable from mid-1994 to year-end 1998, but extreme volatility has returned in 1999. See "—Brazilian Economic Environment." Inflation during the first quarter of 1999, as measured by the IGP-M, amounted to 7.44%.

Inflation and devaluation have potentially adverse consequences for the Company's business, operations, financial condition and results of operations. These factors introduce distortions into the Company's financial statements and make period-to-period comparisons difficult and unreliable. Differences between the relative rate of Brazilian inflation as compared to the rates of Brazil's trading partners, on the one hand, and the rate of currency devaluation, on the other, can cause balance sheet losses for the Company on its foreign currency-denominated liabilities. Inflation places pressure on the Company's rates and invites Federal Government efforts to control inflation by holding down the rates that Brazilian public utilities are permitted to charge.

There can be no assurance that Brazilian inflation will remain at modest rates or, if there is a rekindling of inflation, that the Company's business, operations, financial condition and results of operations will not be adversely affected.

# **The Brazilian Electric Power Industry**

Brazil has an installed capacity of 61.9 GW of which approximately 91% is hydroelectric. The installed capacity includes half the installed capacity of Itaipu, the largest operating hydroelectric plant in the world with 12,600 MW of capacity owned equally between Brazil and Paraguay. The Ministry of Mines and Energy approved a ten-year expansion plan (1998-2007) under which Brazil's installed capacity is projected to increase to 95.7 GW by 2007, of which 17% is projected to be thermoelectric and 83% is projected to be hydroelectric. There are approximately 161,025 kilometers of transmission lines in Brazil.

Approximately 42% of Brazil's installed generating capacity and 51% of Brazil's high voltage transmission lines are operated by Eletrobrás. Eletrobrás is controlled by the Federal Government. Eletrobrás has historically been responsible for implementing electric policy, conservation and environmental management programs. It controls four regional subsidiaries responsible for the generation, transmission and distribution of electricity in the north, northeast and southeast of Brazil: Centrais Elétricas do Norte do Brasil S.A. - Eletronorte, Companhia Hidroelétrica do São Francisco - CHESF, Furnas Centrais Elétricas S.A. - Furnas and Centrais Elétricas do Sul do Brasil S.A. - Eletrosul (excluding Eletrosul's generation assets that formed Centrais Geradoras do Sul do Brasil S.A. - Gerasul, which was privatized in 1998). Eletrobrás also controls Eletrobrás Termonuclear S.A. – Eletronuclear that was formed following a partial split-up of Furnas. The remaining high voltage transmission lines are owned by state-owned electric power companies. Distribution is conducted by approximately 60 state or local utilities, a majority of which are owned by the Federal Government or by state or municipal governments. The public ownership of distribution and generation facilities is expected to decrease as the Federal Government continues to implement its privatization program and state governments continue to privatize state-owned power companies. See "Legal and Regulatory Matters—Privatization" and "-The Proposed Privatization of COPEL."

### **Legal and Regulatory Matters**

The Brazilian government has undertaken extensive reforms in the Brazilian electricity sector in recent years. In general terms, these measures have been aimed at placing regulatory authority in the hands of independent agencies, increasing the role of private enterprise (including foreign investors) in electricity generation and distribution and increasing competition in the sector. These developments have resulted in profound changes in the competitive and regulatory environment in which the Company operates. It is not possible to predict the over-all impact that these changes will have on the Company and its results of operations.

# Regulatory Agencies

Until recently, the electricity industry in Brazil was comprehensively regulated by the Ministry of Mines and Energy (the "MME"), acting through the National Department of Water and Electrical Energy ("DNAEE"). DNAEE had the power to grant concessions for the generation, transmission and distribution of electricity and played an important role in the rate-setting process. The principal regulatory authority for the sector has now passed to an independent agency, Agência Nacional de Energia Elétrica – ANEEL ("ANEEL"), which was established in October 1997. ANEEL has responsibility for (i) acting on applications for concessions for electricity generation, transmission and distribution, (ii) reviewing applications for rate-setting, (iii) supervising and auditing the activities of electricity concessionaires, (iv) issuing regulations for the electricity sector and (v) planning, coordinating and executing water resource studies.

In the past, the construction of new generation facilities and the level of production permitted to existing facilities were subject to regulation by two committees coordinated by Eletrobrás, which included representatives of each of the major concessionary companies, including COPEL. These committees were responsible for preparing and periodically revising plans establishing the number, location, generating capacity and construction schedules of power plants to be built in each region. Supply contracts among the electricity companies within a region were based on an allocation scheme established by the committees.

In August 1997, the National Council of Energy Policy (Conselho Nacional de Política Energética – CNPE) was created. The CNPE advises the President of Brazil on the formulation of energy policy in order to: (i) promote the rational use of Brazilian energy resources; (ii) assure the supply of energy to remote areas of the country; and (iii) establish rules regulating the use of natural gas, alcohol, coal and thermonuclear energy.

In November 1998, the National System Operator ("NSO") was authorized to coordinate the activities of Brazil's generation and transmission systems. The NSO is a not-for-profit entity owned by electricity industry participants and subject to the supervision of ANEEL. The NSO will gradually take over the responsibilities of the committees that previously regulated construction and production levels. The principal responsibilities of the NSO include operational planning of generation and optimization of the use of the national interconnected electricity systems and international interconnections.

#### Rates

Until early 1993, two important principles dominated the rate-setting process in Brazil: (i) that electric utilities should be guaranteed an annual real rate of return of between 10% and 12% (the "Guaranteed Return") on service-related assets included in the rate base and (ii) that the rates charged to each class of customer for electricity should be uniform throughout Brazil, notwithstanding the high costs of distribution to remote areas of the country. In cases where the tariffs set by the Federal Government resulted in returns below 10% or above 12%, shortfalls or excesses were credited or debited to each company's memorandum account (the "CRC Account").

In general, until 1975, rates were set at levels that afforded the Guaranteed Return to companies in the sector. From 1975 through early 1993, however, rates were fixed at levels that in nearly all cases did not permit electric utilities to achieve the Guaranteed Return because the Federal Government sought to use lower rates to combat inflation. The practical effects of this rate-setting and compensation system were significant fluctuations in real terms in the level of rates during the period and a substantial increase in the CRC Account balances of most utilities.

Legislative changes in 1993 abolished the Guaranteed Return concept and the requirement that electricity rates be uniform throughout Brazil. Instead, each utility was to propose a rate structure based on its particular circumstances for approval by federal regulatory authorities. The proposed rate was to be calculated taking into account the concessionaire's desired level of remuneration as well as, among other things, operating expenditures, including personnel costs, the costs of electricity purchased from other concessionary companies, certain construction costs, depreciation and amortization charges, taxes other than income taxes and other charges. This legislation abolished the CRC Accounts and permitted concessionaires with positive CRC Account balances to offset such balances against obligations of such concessionaires to the Federal Government, to federal financial institutions and to other concessionaires in the electricity sector. In connection with these regulatory reforms, the authorities granted electric utilities significant real rate increases and established a mechanism for automatic adjustments in rates to take account of inflation.

Beginning in December 1993, however, the Federal Government introduced the *Real* Plan, which suspended the automatic adjustment process. Instead, rates were frozen and any increases required the approval of the Ministry of Finance. Rate-setting authority has now passed to ANEEL. In April 1997,

COPEL was granted an average increase of 13.55% in the rate charged for sales to distributors and 9.7% in the rate charged for sales to final customers. During 1998, the Company was not granted any rate increases. Effective June 1999, COPEL was granted an average increase of 12.65% in the rate charged for sales to final customers.

In August 1998, ANEEL issued new regulations governing distribution tariffs. ANEEL has the authority to readjust and review tariffs in response to changes in energy purchase costs and market conditions. In readjusting distribution tariffs, ANEEL considers the following: (i) costs of electricity purchased for resale under Initial Contracts (See "—Competition") and from Itaipu; (ii) costs of electricity purchased under freely negotiated contracts; (iii) costs of electricity purchased in the spot market where energy that is not contracted for under the system of Initial Contracts and surplus energy will be purchased and sold); and (iv) certain other charges for transmission and distribution systems. Each distribution company's concession agreement also provides for an annual readjustment of tariffs based on certain regulatory charges, costs of electricity purchased for resale, costs for the use of hydroelectric resources and transmission costs. Tariffs are also reviewed every four years in accordance with a productivity factor.

ANEEL has also issued tariff regulations that govern access to the transmission system and establish transmission tariffs. The tariffs to be paid by distribution companies for use of the interconnected systems will be reviewed annually for inflation. In the future, charges for use of the transmission network will be set by the NSO. Owners of the different parts of the transmission network, which are part of the basic network (the "Basic Network"), according to criteria established by ANEEL, are to transfer operating control of their facilities to the NSO in return for receiving regulated payments linked to availability. Network users, including generation companies, distribution companies and large customers, are to sign agreements with the NSO entitling them to use the Basic Network in return for payment of published tariffs. The other parts of the transmission network, which are not part of the Basic Network, will be made available directly to the interested users by paying specified fees. Transmission charges will be based on the costs of new investment needed to meet incremental needs of the network. Generation companies will pay transmission charges on the basis of installed capacity. Charges for load and use of the transmission network that is not integrated in the Basic Network will be determined on the basis of maximum use during periods of peak usage of the transmission system.

In June 1999, ANEEL set the monthly amount of R\$2,821/MW as the tariff for use of the Basic Network to be applied to the agreements between the NSO and the distribution companies. ANEEL also set the amount of R\$1,550.80/MW as the tariff for the transportation of energy from Itaipu to be paid to Furnas by distribution companies that utilize energy from Itaipu.

The rates that energy utility companies pay for the purchase of electricity generated by Itaipu are established pursuant to a treaty between Brazil and Paraguay and are denominated in U.S. dollars. As a consequence, Itaipu rates rise or fall independently of the rates established by federal regulatory authorities for sales by electric utilities. The sale of Itaipu-generated energy does not generate any margin because the tariff for such sales is equal to the tariff paid by the utility plus sales taxes, with no margin to the utility.

### Competition

In an effort to promote increased competition, ANEEL in March 1998 announced limits on the concentration of certain services and activities within the electric power sector. Under these limits, (i) no generation company may own more than 20% of Brazil's installed capacity, 25% of the installed capacity of the south/southeast/central-west region or 35% of the installed capacity of the north/northeast region, (ii) no distribution company may account for more than 20% of Brazil's distribution market, 25% of the south/southeast/central-west market or 35% of the north/northeast market, (iii) a company with generation and distribution capacity may not account for more than 30% of Brazil's installed capacity and more than 30% of Brazil's distribution market and (iv) no distributor may purchase from an affiliated generation company, or itself generate, more than 30% of its consumers' total energy requirements.

The generation and distribution companies subject to the above limits are companies or consortia that are holders of concessions, permissions or authorizations, as the case may be, to generate or distribute energy, or agents that hold shares in the controlling group of the generation or distribution company. In the case of an agent, the calculation of such limits is based on the number of common shares of the company owned by the agent. In the case of a limited liability company, the calculation is based on the participation of the agent in the capital of the company.

The company that acquires shares of a generation or distribution company as a result of a privatization of a state or federally owned electric power company is not immediately subject to the above limits provided such company has an agreement with ANEEL obligating it to comply with these limits within 24 months from the date the concession agreement is signed. At the end of this period, the Federal Government, through an auction, will sell the portion of shares that exceed the limits and indemnify the owner of the shares for 90% of the net value of the sale.

In May 1998, the Federal Government established the Wholesale Energy Market that will be instituted by a standard form agreement that must be signed by participants in the market. The terms of this agreement were approved by ANEEL in January 1999. The following entities are required to participate in the Wholesale Energy Market: (i) generation companies with installed capacity of 50 MW or more, (ii) distribution and retail companies with annual sales of 300 GWh/year or more and (iii) companies that import or export 50 MW or more of electricity. Other generation, distribution and import/export companies are permitted to participate in the market on a voluntary basis.

During a transition period (1998-2005), purchases and sales of energy in the Wholesale Energy Market will occur pursuant to bilateral contracts ("Initial Contracts") that specify contract prices and volumes approved by ANEEL for their entire duration and replace the former system of supply contracts. The purpose of the transition period is to permit the gradual introduction of competition into the sector and to protect market participants against exposure to potentially volatile spot prices. ANEEL has established the quantities and voltages to be supplied under Initial Contracts in 1999, 2000 and 2001. The quantities and voltages to be supplied in 2002 will equal the amounts supplied in 2001.

From 2003 to 2005, the electricity to be committed to Initial Contracts will be reduced each year by 25% of the energy committed for 2002. Generation companies and distribution companies will be free to negotiate new contracts at market prices to replace the uncontracted volumes. Energy that is not contracted for under the system of Initial Contracts and surplus energy will be negotiated directly on the spot market. The rules of the Wholesale Energy Market will not apply to electricity generated by Itaipu. Itaipu power will be the subject of specific contracts between the concessionaires operating in the south/south-east/central-west interconnected system and Furnas or Eletrosul.

To encourage private participation in the electricity sector, new regulations provide for the establishment of "authorized free market retailers" (*agentes comercializadores*). Authorized free market retailers may include generation companies wishing to sell energy directly to final customers, distribution and retail concessionaires acting outside their concession areas and independent retailers or brokers. The first such retailer, Tradener Ltda., was authorized by ANEEL in November of 1998. Tradener is a joint venture between COPEL and Logus Energia, a small engineering and power developer based in Paraná. See "Operations of COPEL—Other Activities."

### Concessions

The Brazilian Constitution provides that the development, use and sale of electricity may be undertaken directly by the Federal Government or indirectly through the granting of concessions and authorizations. Companies or consortia seeking to construct or operate a generation, transmission or distribution facility in Brazil are required to apply for a concession from ANEEL. Brazil's legislation requires that the granting of any public utility concession be preceded by a public bidding process. ANEEL

determines the winning bid based on the lowest public service tariff offered, the largest payment to the Federal Government in consideration for receipt of the concession or a combination of both such criteria.

Concessionaires may not transfer, sell or assign certain assets without the prior written consent of ANEEL. The purchase and sale of energy by the "authorized free market retailers", the import and export of energy and the trade of exceeding energy by the self-producers are subject to prior approval of ANEEL. Spin-offs, consolidations, mergers and reorganizations of concessionaires require prior approval from ANEEL.

The development of hydroelectric plants by an Independent Power Producer – IPP ("IPP") or a self-producer requires a concession only if the project will have in excess of 1 MW of installed capacity in the case of an IPP or 10 MW in the case of a self-producer. Simplified procedures apply to all other cases, including thermoelectric plants.

Since 1995, controlling interests in distribution and generation companies previously owned by the federal government through Eletrobrás, and in state-controlled distribution companies, have been sold to private investors. Certain state governments have also sold minority interests in major distribution companies in the same period. See "—Privatization."

# Role of the Private Sector

Various legislative and constitutional initiatives in 1995 gave rise to substantial changes in the regulatory framework governing the Brazilian electricity sector. The Brazilian Federal Constitution was amended to permit any Brazilian company to become a concessionaire in the electricity sector (regardless of the nationality of the company's shareholders). A new federal law on public concessions (in the electricity and other sectors) required the renewal of most existing concessions and required that the granting of new concessions for public utility services be preceded by a public bidding process. New federal legislation relating specifically to the electricity sector opened the sector permitting IPPs to generate and sell electricity for their own account to certain categories of customers, permitting certain customers to purchase electricity from any power supplier and requiring that suppliers and large consumers be given open access (for a fee) to the distribution and transmission systems of concessionaires that are included in the Basic Network.

# Privatization

Since 1995, a number of federal and state electric utilities have been privatized. The Federal Government has disposed of its indirect controlling interests in:

- ESCELSA, the power distribution company for the State of Espírito Santo (1995)
- LIGHT, one of the power distribution companies for the State of Rio de Janeiro (1996)
- Centrais Geradoras do Sul do Brasil S.A. Gerasul, a generation company formed from the generation assets of Centrais Elétricas do Sul do Brasil S.A. Eletrosul, a subsidiary of Eletrobrás (1998).

Electric utility privatizations have also been occurring at the state level:

- The State of Rio de Janeiro disposed of its controlling interest in Companhia de Eletricidade do Rio de Janeiro CERJ, a power distribution company (1996).
- The State of Minas Gerais sold a minority stake in CEMIG (a distribution company), to a consortium of strategic investors (1997).
- The State of Bahia sold a minority stake in COELBA (a distribution company), to a consortium of strategic investors (1997).

- The State of Rio Grande do Sul sold its indirect interest in two distribution companies (1997).
- The State of Mato Grosso do Sul and Eletrobrás sold a majority interest in ENERSUL (the distribution company in the state) (1997).
- Companhia Energética de São Paulo CESP (the São Paulo state-controlled power company), the State of São Paulo, Companhia Paulista de Administração de Ativos - CPA, Nossa Caixa Nosso Banco and Banco do Estado de São Paulo S.A. - BANESPA sold a majority interest in Companhia Paulista de Força e Luz - CPFL (1997).
- The State of São Paulo sold its controlling interest in Eletropaulo Metropolitana Eletric idade de São Paulo S.A., a distribution company (1998).
- CESP sold its controlling interest in Elektro Eletricidade e Serviços S.A., a distribution company (1998).

The remaining subsidiaries of Eletrobrás (Furnas, CHESF and Eletronorte) are being prepared for privatization.

# Regulatory Charges

Electricity companies are compensated for certain assets used in connection with a concession if the concession is revoked or is not renewed. In 1971, the Brazilian Congress created a reserve fund designed to provide funds for such compensation (the "RGR Fund"). In February 1999, ANEEL revised the assessment of the RGR fee requiring public-sector electricity companies to make monthly contributions to the RGR Fund at an annual rate equal to 2.5% of assets in service, not to exceed 3% of total operating revenues in any year. See Note 17 to the Financial Statements. In recent years, virtually no concession has been revoked or failed to be renewed, and the RGR Fund has been used principally to finance generation and distribution projects. The RGR Fund is scheduled to be terminated by 2002.

The Federal Government has imposed a fee on IPPs similar to the fee levied on public-sector generation companies in connection with the RGR Fund. IPPs are required to make contributions to the Fundo de Uso de Bem Público (the "UBP Fund") for five years from the date that they receive their concessions. Eletrobrás will receive the UBP Fund payments until December 31, 2002. All subsequent payments to the UBP Fund will be paid directly to the Federal Government.

Distribution companies are required to contribute to the Conta de Consumo de Combustível ("CCC Account"). The CCC Account was created in 1973 to generate financial reserves to cover fossil fuel costs in thermal power plants in the event of a rainfall shortage which would require increased use of thermal plants. Thermal power plants have higher marginal operating costs than hydroelectric plants. Each electricity company is required to contribute annually to the CCC Account. The annual contributions are calculated on the basis of estimates of the cost of fuel needed by the thermal power plants in the succeeding year. Eletrobrás administers the CCC Account. The CCC Account, in turn, reimburses electricity companies for a substantial portion of the fuel costs of their thermal power plants.

In February 1998, the Federal Government provided for the gradual elimination of the CCC Account. Subsidies from the CCC Account will be phased out over a three-year period beginning in 2003 for thermal power plants constructed prior to February 1998. Thermal power plants constructed after that date will not be entitled to subsidies from the CCC Account. Protection from hydrological risk for centrally dispatched hydrogenerators is now provided through an Energy Reallocation Mechanism (the "ERM"). The ERM will ensure that, under normal operating conditions, hydrogenerators will receive the income associated with their assured energy entitlement by allocating generation from those in surplus to those in deficit.

All hydroelectric utilities in Brazil are required to pay fees to Brazilian states and municipalities for the use of hydrological resources. Such amounts are based on the amount of energy generated by each utility and are paid to the states and municipalities where the plant or the plant's reservoir is located.

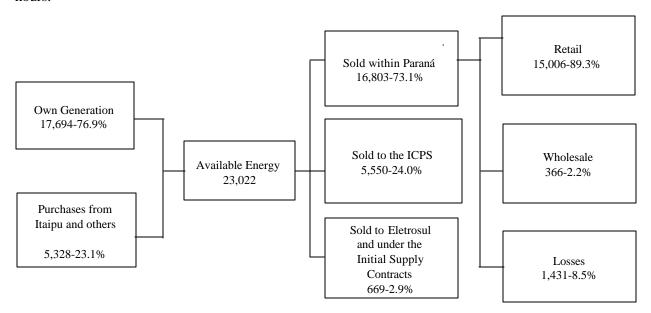
# Environmental Regulations

The Brazilian Constitution gives both the Federal Government and state governments power to enact laws designed to protect the environment and to issue regulations under such laws. While the Federal Government has power to promulgate environmental regulations, state governments have the power to enact more stringent environmental regulations. Accordingly, most of the environmental regulations in Brazil have been enacted at the state and local level rather than at the level of the Federal Government. An entity that violates applicable environmental laws may be subject to substantial fines and restrictions on otherwise permissible activities.

# **Operations of COPEL**

#### General

During 1998, the Company produced approximately 77% of the electricity it delivered. In addition to the energy it produces, COPEL is required, like certain other Brazilian utilities, to purchase energy from Itaipu in an amount determined by the Federal Government based on COPEL's sales of electricity. See "—Generation and Purchases of Energy—Purchases." The following chart sets forth the sources and uses of electricity delivered by COPEL during 1998. Amounts other than percentages are in gigawatt hours.



Since 1993, the electricity COPEL generates and the electricity COPEL is required to purchase, taken together, have exceeded the amount of energy that COPEL has distributed. In prior years, COPEL sold most of its excess energy to Eletrosul, a subsidiary of Eletrobrás ("Eletrosul"), and to other utilities in the south of Brazil through a transmission network known as the "Interconnected Power System—South/Southeast" (or "ICPS") that links the states in the South and Southeast of Brazil.

In August 1998, ANEEL issued a resolution replacing the system of supply contracts with Eletrosul with the purchase and sale of energy to wholesale distributors through Initial Contracts. See "—Legal and Regulatory Matters—Competition." Initial Contracts are negotiated at predetermined rates and quantities approved by ANEEL. ANEEL has established the quantities and voltages to be supplied under Initial Contracts in 1999, 2000 and 2001. From 2003 to 2005, the electricity to be committed to Initial Con-

tracts will be reduced each year by 25% of the energy committed for 2002. Generation companies and distribution companies will be free to negotiate new contracts at market prices to replace the uncontracted volumes. The Company supplies electric energy under Initial Contracts to five distributors.

The Interconnected Power Systems (such as the ICPS) are designed to optimize electricity generation in Brazil. Electric power generation companies are required to transfer excess energy into the Interconnected Power Systems. These transfers do not result in cash payments to the transferor. Rather, the transferor receives a credit in Brazilian currency for the energy transferred at a rate (the "optimization rate") which reflects only the operating cost associated with the energy (and does not include profit or return on investment). Credits may be applied against costs of energy received from the system during times of drought or other conditions that cause demand to exceed output.

The following table sets forth the total electricity generated by COPEL and purchased from Itaipu and others and the average cost to COPEL of such electricity during 1998.

	Year ended December 31,					
	1998	1997	1996	1995	1994	
			(GWh)			
Electricity generated by COPEL	17,694	15,422	18,625	13,097	12,526	
Electricity purchased from Itaipu	5,302	5,410	4,976	4,688	4,268	
Electricity purchased from others	26	12	9	12	14	
Total	23,022	20,844	23,609	17,797	16,808	

The following table sets forth the total electricity sold by COPEL to final customers, distributors, Eletrosul and the Interconnected Power System—South/Southeast since 1994.

	Year ended December 31,					
	1998	1997	1996	1995	1994	
			(GWh)			
Electricity delivered to final						
customers	15,006	14,230	13,503	12,661	11,637	
Electricity delivered to distributors in						
Paraná	366	351	339	318	299	
Electricity delivered to out of state						
distributors under Initial						
Contracts	160	0	0	0	0	
Electricity delivered to Eletrosul	509	2,210	2,468	2,619	2,435	
Losses—Distribution System	1,431	1,369	1,086	1,250	1,093	
Net energy (gains) losses for						
transmission	0	0	24	(200)	123	
Subtotal	17,472	18,160	17,420	16,648	15,587	
Electricity delivered to the ICPS	5,550	2,684	6,189	1,149	1,221	
Total	23,022	20,844	23,609	17,797	16,808	

Generation and Purchases of Energy

Generating facilities

At March 1999, COPEL operated 17 hydroelectric plants and one thermoelectric plant, with a total installed capacity of 3,615 MW. Substantially all the electricity produced by COPEL is produced by its hydroelectric plants. COPEL generated 17,694 GWh of electricity in 1998, 15,422 GWh in 1997 and 18,625 GWh in 1996. The 14.7% increase from 1997 to 1998 reflects favorable hydrological conditions

during 1998. The 17.2% decrease from 1996 to 1997 reflects extremely favorable hydrological conditions at COPEL's generating facilities during 1996.

The following table sets forth certain information relating to COPEL's principal plants in operation at December 31, 1998.

Type	Plant	Installed Capacity	Assured Energy (1)	Placed In Service	Concession Expires
		(MW)	(GWh/yr)		
Hydroelectric	Foz do Areia	1,676	5,055	1980	2023
Hydroelectric	Segredo	1,260	5,387	1992	2029
Hydroelectric	Capivari Cachoeira	252	1,104	1971	2021
Hydroelectric	Guaricana	36	119	1957	2026
Hydroelectric	Chaminé	18	102	1930	2026
Thermoelectric	Figueira	20	123	1963	2019

<sup>(1)</sup> Values used to determine volumes committed for sale under Initial Contracts.

*Capivari Cachoeira*. The Capivari Cachoeira hydroelectric plant is the largest underground hydroelectric plant in Brazil. It is located on the Capivari River, approximately 50 kilometers north of the city of Curitiba. The Capivari Cachoeira plant began full operations in 1971.

*Foz do Areia*. The Foz do Areia hydroelectric plant is located on the Iguaçu River, approximately 240 kilometers southwest of the city of Curitiba. The Foz do Areia plant began full operations in 1982.

*Segredo*. The Segredo hydroelectric plant is located on the Iguaçu River, approximately 285 kilometers southwest of the city of Curitiba. The Segredo plant began full operations in 1993. In March 1996, the Jordão River Project was completed which linked a dam to the Segredo reservoir, thereby increasing the plant's assured energy by 10%.

### Expansion of Generating Capacity

The Company continues to expand its generating capacity in response to the increase in demand. In 1998, the total power consumption in the Company's concession area was 15,006 GWh as compared to 14,230 GWh in 1997, an increase of 5.5%. To meet the anticipated demand, the Company's management projects it will spend R\$830 million on generation from 1999 through 2003.

The following table sets forth information regarding the Company's planned major generation projects for the period from 1999 to 2003.

Facility	Estimated Installed Capa city	Assured Energy(1)	Budgeted Completion Cost	Expected Begin- ning of Operation	Ownership Percentage	Status
	(MW)	(GWh/year)	(R\$ million)			
Salto Caxias (2)	1,240	5,361	1,413	November 1999	100%	First unit operating
Machadinho	1,140	4,143	668	August 2002	5.2%	Concession awarded
Campos Novos	880	2,978	n.a.	October 2003	15%	Concession awarded
Araucária (3)	480	3,868	500	March 2002	20%	SPC incorporated
Dona Francisca	125	701	138	February 2001	23%	Concession awarded

<sup>(1)</sup> Values used to determine volumes committed for sale under initial contracts.

Salto Caxias. The Salto Caxias hydroelectric plant is located on the Iguaçu River. The Company began constructing the plant in 1994, and the Company's management anticipates that the plant will be

<sup>(2)</sup> Represents the plant's projected installed capacity and annual production following the completion of all four generating units in 2000. The first generating unit was placed in service in February 1999.

<sup>(3)</sup> Thermoelectric Power Plant

fully operational by the end of 1999. The Company began to fill the reservoir in October 1998 and placed the first generation unit in service in February 1999. The installed capacity of the first unit is 310 MW. The three remaining generation units are expected to be installed by year-end 1999. Upon completion of all four generation units, the plant is expected to have an installed capacity of 1,240 MW and an assured energy of 5,361 GWh/year.

At year-end 1998, the following percentages of the Salto Caxias project were completed: 95% of the civil engineering work, 81% of equipment manufacturing, 69% of the assembly, 99% of the condemnation process, all 26 of the environmental programs, completion of specified community-oriented programs and completion of the resettlement of the population.

By year-end 1998, the Company's investment in the construction of Salto Caxias totaled R\$1,202 million. The Company estimates that an additional R\$210.8 million will be necessary to complete the project. The Company has funded the project with cash from operations and proceeds from financings completed in 1997. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources." Based on projected completion costs, the Company's management expects that the cost per megawatt of installed capacity will be approximately R\$1.14 million.

Machadinho. The Company owns a 5.2% interest in a consortium of private and public sector companies that plans to construct, finance and operate the Machadinho hydroelectric plant pursuant to a 35-year concession granted in January 1997. The Machadinho hydroelectric plant will be located on the Pelotas River, which marks the border between the States of Santa Catarina and Rio Grande do Sul. The Machadinho hydroelectric plant is expected to have installed capacity of 1,140 MW. When completed, the plant will be operated by Gerasul, one of the consortium members. The consortium agreement provides that COPEL will purchase electricity generated by the plant in proportion to its interest in the consortium. Preliminary work on the Machadinho project has begun and an engineering procurement contract has already been signed. The consortium members estimate that the expenditures necessary to construct the plant will total approximately R\$668 million, of which COPEL will be responsible to contribute approximately R\$35 million. At 1998, COPEL had already invested R\$7.2 million.

Campos Novos. The Campos Novos hydroelectric plant will be located on the Canoas River in the State of Santa Catarina. A consortium of seven companies holds the concession for Campos Novos. The Company owns a 15% interest in the consortium. The basic engineering project is under review and the basic environmental project is being prepared so that the consortium may apply for the necessary permits. Construction is expected to begin in September 1999. The facility is projected to have installed capacity of 880 MW. The consortium members, including COPEL, are still in the process of determining the investment necessary to construct the plant and the amounts to be contributed by each member of the consortium.

Dona Francisca. The Dona Francisca hydroelectric plant will be located on the Jacuí River in the State of Rio Grande do Sul. The Company owns a 23% interest in the consortium that holds the concession for Dona Francisca. In 1998, the major suppliers were secured and the construction of the power plant initiated. The plant is projected to have an installed capacity of 125 MW. The consortium members, including COPEL, estimate the investment necessary to construct the plant at approximately R\$138.0 million, of which COPEL expects to be responsible to contribute approximately R\$31.8 million. At 1998, COPEL had already invested R\$5.6 million.

Santa Clara and Fundão Power Plants. Copel is involved in two consortia to build the Santa Clara and Fundão power plants. COPEL's interest will be 30% in the consortium created to construct the Santa Clara power plant and 20% in the consortium created to construct the Fundão power plant. The other consortium members include Construtora e Incorporadora Paineira Ltda., Guvel Participações Ltda. and Redentor Participações Ltda.

Thermoelectric Plants. UEG Araucária Ltda., formed in April 1998, is a partnership between COPEL, British Gas do Brasil Ltda., El Paso Empreendimentos e Participações Ltda. and Petrobrás Distribuidora S.A. The partnership plans to construct a thermal plant in the Municipality of Araucária (located in the Curitiba metropolitan area). The plant is expected to have installed capacity of 480 MW and is expected to be fired by natural gas imported from Bolivia through the Brazil-Bolivia pipeline. The plant is expected to begin operating in March 2002. The capacity purchase contracts, the gas supply contracts and the plant acquisition turnkey contracts are in the process of being finalized. The estimated cost of this power plant and related links to the transmission system is R\$500 million, of which the Company's share is expected to total approximately R\$100 million.

COPEL has also acquired a 20% interest in a partnership to construct a thermoelectric power plant called Usina Termoelétrica do Xisto, which will be located near the Iguaçu river in south western Paraná. The plant is projected to have installed capacity of 70 MW and begin operations in December 2002.

The Company also plans to increase the installed capacity of the Figueira thermoelectric plant from 20 MW to 120 MW. The plant is projected to begin operations at the increased capacity in December 2001.

Wind Power. The Company owns a 30% interest in Centrais Eólicas de Palmas Ltda., a special-purpose company formed in December 1998 to install and operate the first wind power plant in southern Brazil. The wind power plant comprises five wind energy converters with an installed capacity of 2.5 MW. The electric/mechanical and civil engineering work was completed in January 1999 and plant has been in operation since February 1999.

*Projects Under Study.* The Company has signed letters of intent to participate in consortia to carry out seven new projects on the Tibagi and Jordão Rivers with an estimated total installed capacity of 1,300 MW. The feasibility and environmental-impact studies for the projects are being conducted to allow the Company to bid for the concessions.

The Company is also in the process of reviewing the hydroelectric potential of the Chopim and Ivaí rivers, which are located in the State of Paraná.

### **Purchases**

COPEL purchased 5,302 GWh of electricity from Itaipu in 1998, or 23% of the total electricity generated and purchased by COPEL in 1998. Itaipu is the largest operating hydroelectric power plant in the world, with an installed capacity of 12,600 MW. Pursuant to a 1973 treaty between Brazil and Paraguay, Brazil purchases a substantial majority of the electricity generated by Itaipu. Electric utilities operating under concessions in the Midwest, South and Southeast regions of Brazil are required by law to purchase Brazil's portion of the energy generated by Itaipu in proportion to the volume of electricity that they historically have provided to customers. The rates at which these companies are required to purchase Itaipu's energy are fixed to cover Itaipu's operating expenses and payments of principal and interest on Itaipu's U.S. dollar-denominated borrowings, as well as the cost of transmitting the power to their concession areas. These rates are denominated in U.S. dollars and have been above the national average cost for bulk supply of power. COPEL's cost for energy purchased from Itaipu in 1998 was approximately 29.29% above the average for bulk supply of power in the southern region of Brazil. Starting in February 1999, the exchange rate for energy purchases from Itaipu was set at R\$1.55 to US\$1.00 and will remain at that rate until April 1999. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Tariffs."

### Transmission and Distribution

#### General

Electricity is transferred from power plants to customers through transmission and distribution systems. Transmission is the bulk transfer of electricity from generating facilities to the distribution system by means of the transmission grid. Distribution is the transfer of electricity from the transmission system to final customers.

The following table sets forth certain information concerning the Company's transmission and distribution systems at the dates presented.

	At December 31,					
	1998	1997	1996	1995	1994	
Transmission and subtransmission lines						
(km)						
230 kV and above	1,258.2	1,324.3	1,282.3	1,262.3	1,262.3	
138 kV	3,949.7	3,746.9	3,542.4	3,465.8	3,465.8	
69 kV	1,143.9	1,210.9	1,320.6	1,353.2	1,354.0	
Distribution lines (km)						
23 kV to 44 kV	73,373.8	70,038.8	68,444.7	66,934.0	64,998.7	
Overhead distribution lines (13.8 kV						
to 23 kV)	72,044.4	70,298.5	68,022.3	65,169.0	62,973.3	
Transformer capacity (MVA)						
Transmission substations	14,316	13,596	12,828	12,831	12,799	
Distribution substations	1,199	1,158	1,175	1,188	1,108	
Distribution transformers (MVA)	5,313	5,008	4,698	4,494	4,253	
Total energy losses	8.5%	8.6%	7.3%	8.8%	8.4%	

### Transmission

COPEL transmits electricity generated by COPEL and energy received from the Interconnected Power System—South/Southeast. COPEL also has 13 industrial customers that are directly supplied with high voltage (at least 138 kV) energy through connections to COPEL's transmission lines. These industrial customers accounted for approximately 13.5% of COPEL's total volume of electricity sold in 1998. In addition to using transmission lines to provide energy to customers in Paraná, COPEL transmits energy through the Interconnected Power System—South/Southeast. In 1998, COPEL's transmission system was reinforced as ten new substations were completed, 52 existing substations were upgraded, and 146 kilometers of transmission lines were built.

Companies with transmission facilities, such as COPEL, are required to allow third parties to use their transmission facilities. In 1998, for the first time, companies with transmission facilities were authorized to charge third parties for the use of their transmission facilities. Charges for use of the transmission network for each interconnected system are set by the NSO. In addition, under the new regulatory regime, COPEL is responsible for expanding the transmission grid within its concession area. Accordingly, COPEL has prepared an expansion plan for its transmission grid for the period from 1998 to 2003 that includes, among other things, (i) the construction of 36 new substations having capacities ranging from 69 kV to 500 kV, (ii) the improvement of 81 existing substations, (iii) the upgrading of two substations from 69 kV to 138 kV and (iv) the construction of approximately 1,507 kilometers of new transmission lines with capacities ranging from 69 kV to 500 kV.

Two federally-owned companies, Eletrosul and Furnas, also maintain significant transmission systems in Paraná. Furnas is responsible for the transmission of electricity from Itaipu, while Eletrosul's transmission system links the states in the south of Brazil to those in the southeast region of Brazil. In addition to its own transmission system, COPEL supplies energy using Eletrosul's transmission system.

In 1998, for the first time, companies, such as COPEL, were charged to use the transmission facilities of other companies.

COPEL is studying the possibility of participating in a consortium to construct a 500 kV transmission line between northern Argentina and Paraná. This new transmission line, which is projected to have a length of 330 kilometers and a total capacity of approximately 1,000 MW, would allow COPEL to purchase excess energy from Argentine generators for resale in Paraná. COPEL is also studying the possibility of a transmission line to link substations near the Salto Caxias plant to the proposed transmission line from Argentina.

### Distribution

COPEL's distribution system consists of a widespread network of overhead lines and substations with voltages up to 34.5 kV. Electricity is supplied to smaller industrial customers at the higher end of the voltage range and is supplied to residential and commercial customers at the lower end of the range. At December 31, 1998, COPEL provided electricity in a geographic area encompassing 98% of Paraná and served approximately 2.7 million customers.

COPEL's distribution network includes 145,418.2 kilometers of distribution lines, 275,772 distribution transformers and 230 distribution substations. During 1998, 89,288 new clients were connected to the Company's network, including customers connected through the rural and urban electrification programs. COPEL is implementing compact grid design distribution lines in urban areas where there is a large concentration of trees in the vicinity of the distribution grid. The total extension of the compact grid design distribution lines was increased from 746 kilometers in 1997 to 965 kilometers in 1998.

### System Performance

COPEL determines the energy losses of its distribution system separately from those of its transmission system. The rate of distribution losses is generally greater than the rate of transmission losses for most Brazilian electricity companies. Some Brazilian utilities calculate losses as a percentage of electricity carried through both the transmission network and the distribution network, which has the effect of reducing a company's stated rate of losses. COPEL excludes the Interconnected Power System—South/Southeast and transmission lines operated by affiliates of Eletrobrás in calculating the rate of losses. The Company's management believes that COPEL's approach to determining energy losses provides a more accurate measure of the Company's system performance.

During 1998, the Company's energy losses totaled 8.5% of electricity sold to final customers and small distributors, compared to losses of approximately 8.6% in 1997 and approximately 7.3% in 1996. Specifically, of COPEL's energy losses (as a percentage of electricity sold to final customers) during 1998, 5.4% occurred during distribution and 3.1% occurred during transmission (excluding losses from the transmission lines operated by Eletrobrás).

The quality and reliability of power supply also improved during 1998, as measured by such indicators as annual duration of outages per consumer and annual frequency of outages per consumer. Information regarding the duration and frequency of outages for COPEL's customers are set forth in the following chart for the years indicated.

	Year ended December 31,							
Quality of Supply Indicator	1998	1997	1996	1995	1994			
Duration of outages per consumer								
(in hours)	13h 25min	14h 20min	15h 30min	16h 50min	20h 30min			
Frequency of outages per consumer								
(number of outages)	14.58	14.50	16.80	17.50	21.5			

Sales to Final Customers. During 1998, COPEL supplied approximately 91% of the energy distributed directly to customers in Paraná. COPEL's concession area includes approximately 2.7 million final customers located in Paraná and in one municipality in the State of Santa Catarina, to the south of Paraná.

The following table sets forth certain information regarding the Company's volumes of energy sold to, and revenues from sales of energy to, different categories of purchasers for the periods indicated.

			Year ended December 31,							
Categories of Purchaser	199	98	19	97	19	96	19:	95	19	94
	(GWh)	(R\$)	(GWh)	(R\$)	(GWh)	(R\$)	(GWh)	(R\$)	(GWh)	(R\$)
Industrial	5,932	485	5,641	473	5,365	460	5,214	468	4,915	507
Residential	4,185	714	3,949	633	3,780	561	3,390	420	2,988	388
Commercial	2,268	332	2,111	304	1,949	288	1,783	274	1,605	272
Rural and others(1)	2,141	187	2,073	179	1,968	166	1,853	177	1,732	183
Public services Interconnected Power Sys-	480	42	456	39	441	38	421	41	397	42
tem—South/Southeast	5,550	26	2,684	18	6,189	30	1,149	6	1,221	3
Other distributors	1,035	32	2,561	63	2,807	70	2,937	74	2,735	71
Total(2)	21,591	1,818	19,475	1,709	22,499	1,613	16,747	1,460	15,593	1,466

<sup>(1)</sup> Includes street lighting, municipalities and government agencies.

The following table sets forth the number of final customers of COPEL in each category at December 31, 1998.

	Number of
Category	Final Customers
Industrial	42,008
Residential	2,096,262
Commercial	230,366
Rural and others	309,356
Total	2,677,992

The average rate paid by COPEL's customers (net of ICMS Tax) was R\$89.6 per MWh during 1998, as compared to R\$87.5 per MWh during 1997. Residential and commercial customers, who pay relatively high rates compared to industrial customers, accounted for approximately 27.9% and 15.1%, respectively, of electricity sold to final customers in 1998. Approximately 39.5% of the electricity sold by COPEL to final customers in 1998 was sold to industrial customers, including customers in the pulp and paper processing, chemicals and cement industries. In 1998, COPEL's 20 largest industrial customers accounted for approximately 17.4% of COPEL's electricity sold to final customers and approximately 8.8% of COPEL's revenues from sales to final customers. No one customer accounted for more than 1.2% of COPEL's revenues.

**Tariffs** 

COPEL's customers are classified into two groups ("Group A Customers" and "Group B Customers"), based on the voltage level at which electricity is supplied to them and on whether they are industrial, commercial, residential or rural. Each customer falls within a certain tariff level defined by law and based on the customer's classification, although some flexibility is available according to the nature of each customer's demand. Under Brazil's regulatory framework, residential customers (other than Low Income Residential Customers (as defined below)) pay the highest tariff rates, followed by commercial and rural customers and then industrial customers, which pay the lowest rates.

<sup>(2)</sup> Figures in GWh do not include COPEL's own consumption or energy losses.

Group A Customers receive electricity at 2.3 kV or higher. Tariffs for Group A Customers are based on the actual voltage level at which energy is supplied and the time of year and the time of day energy is supplied. Tariffs are comprised of two components: a "capacity charge" and an "energy charge." The capacity charge, expressed in *reais* per KW, is based on the higher of (i) contracted firm capacity and (ii) power capacity actually used. The energy charge, expressed in *reais* per MWh, is based on the amount of electricity actually consumed.

Group B Customers receive electricity at less than 2.3 kV. Tariffs for Group B Customers are comprised solely of an energy charge and are based on the classification of the customer, i.e., residential, rural, low voltage industrial, commercial and service customers and municipalities requiring power for street lighting.

In 1996, DNAEE issued regulations providing for discounted rates for certain low income residential customers. A "Low Income Customer" is any customer (i) whose energy consumption is less than 160 KWh per month, (ii) who has monthly earnings of less than three minimum salaries (currently equal to R\$408 per month), (iii) whose dwelling has an area of less than 50 square meters and a "low income appearance" (as defined in the relevant regulations of DNAEE) and (iv) who is the sole individual billed at the residence. In 1998, following a change in the criteria used by the Company to determine a customer's status as a Low Income Customer, the number of Low Income Customers decreased by 61,000.

The following table sets forth the current minimum discount rates approved by DNAEE for each category of Low Income Residential Customer.

Consumption	Discount From Base Tariff
Up to 30 KWh per month	65%
From 31 to 100 KWh per month	40%
From 101 to 160 KWh per month	10%

### Other Activities

Sercomtel. In May 1998, COPEL purchased 45% of the voting stock of Sercomtel Telecomunicações S.A. and 45% of Sercomtel Celular S.A. (jointly, "Sercomtel") for a total of R\$186 million. Sercomtel holds the concessions to provide fixed and mobile telephone services in the municipalities of Londrina and Tamarana in Paraná. The Company and Sercomtel are seeking operating synergies between their telecommunications and electric power operations. Sercomtel recently acquired concessions from the Agência Nacional de Telecomunicações – ANATEL ("Anatel") to provide cable television in Cascavel (Paraná) and Osasco and Araraquara (State of São Paulo) and radio-wave transmission television in Maringá and Londrina (State of Paraná).

Sanepar. In 1998, Domino Holdings S.A. was established to purchase 39.7% of the voting stock of Companhia de Saneamento do Paraná – Sanepar ("Sanepar"). Dominó Holdings S.A. is a consortium consisting of COPEL (15%), Vivendi S.A. (30%), Construtora Andrade Gutierrez S.A. (27.5%) and Banco Opportunity (27.5%). The consortium purchased its interest in Sanepar for R\$249.8 million, R\$37.5 million of which was invested by COPEL. In September 1998, Banco Opportunity purchased a portion of COPEL's interest in Sanepar, reducing the Company's interest in Sanepar's voting stock to 6%.

Compagás. COPEL is engaged in the distribution of refined gas through its unconsolidated majority-owned subsidiary, Compagás. Compagás holds the exclusive rights to supply piped gas in the State of Paraná, under a concession granted by the Federal Government. Compagás' customers include industries, government agencies, the transportation industry and others. Compagás is focusing its marketing efforts on substituting gas for fuel oil and other fuels as a means of achieving greater energy efficiency.

At year-end 1998, COPEL owned 51% of the capital stock of Compagás. The minority share-holders of Compagás are Petrobrás Distribuidora S.A. (an oil distribution company owned by Petróleo Brasileiro S.A. – Petrobrás) and Dutopar Participações Ltda., each of which owns 24.5% of the capital stock of Compagás.

Compagás has entered into agreements to purchase refined gas from an oil refinery owned by Petrobrás located in the City of Araucária and natural gas from Bolivia supplied through the Bolivia-Brazil gas pipeline. In October 1998, Compagás began to supply refined gas to industrial customers in the Curitiba metropolitan area. During the fourth quarter of the year, COPEL supplied 794 thousand cubic meters of refined gas, producing revenues of R\$132,000. The Company's management estimates that Compagás will supply between 160 and 180 thousand cubic meters of refined gas per day until the supply of Bolivian gas begins, which is currently scheduled for October 1999. When those deliveries begin, Compagás intends to expand its supply of gas to municipalities outside Curitiba.

*Tradener*. In July 1998, COPEL entered into a joint venture with Logos Energia Ltda. to form Tradener Ltda. Tradener was the first private-sector company authorized by ANEEL to operate as an authorized free market retailer, pursuant to new regulations designed to encourage retail competition and private participation in the electric power sector. See "Legal and Regulatory Matters Competition." Tradener will sell electricity produced by COPEL and others in Brazil and abroad.

Telecommunications and Information Technology. In March 1998, COPEL was the first Brazilian electric power company to receive authorization from Anatel to provide certain limited specialized telecommunications service, including the provision of corporate telecommunications services. For that purpose, COPEL is constructing a network of 2,000 kilometers of optical fiber cables. In April 1999, 60% of the project had been installed and was operating.

Companhia Nacional de Intervias. In December 1998, COPEL decided to participate in Companhia Nacional de Intervias, a new company that will provide Internet access services. COPEL's direct interest will be 50% and the direct interest of Sercomtel will be 50%. Certain private third parties have options to participate in Companhia Nacional de Intervias.

ESCO. In December 1998, the Company decided to participate in ESCO Electric Ltda., a special purpose company created to assist clients in the use of electricity through consulting services, planning and project implementation, automation services, commissioning, operation, maintenance, training and technical assistance. ESCO will also market products and services aimed at obtaining greater energy efficiency and energy conservation. COPEL's interest in ESCO will not exceed 30% and will depend on COPEL's strategic interests.

*AUDI*. In December 1998, the Company decided to participate up to 20% in a special purpose company created to provide maintenance service to Volkswagen Audi in Curitiba.

Consulting and Other Services. The Company provides consulting services in connection with electric power projects in Brazil and abroad. During 1998, the Company's consulting services included work relating to the construction of a transmission line connecting the power systems of Brazil and Argentina. The Company also signed an agreement with Vietnam Power Investigation and Design Company to provide services in connection with feasibility studies and projects for approximately 15 hydroelectric plants. At the request of the Nepalese government, the Company is preparing a proposal to provide hydrology consulting for projects in the Pokhara region of Nepal sponsored by the World Bank.

#### Concessions

COPEL operates under concessions granted by the Federal Government for its generation, transmission and distribution businesses. As required by law, the Company applied in 1996 for an extension of its existing generation, transmission and distribution concessions, including concessions relating to facilities under construction. In October 1996, the MME approved extensions for the Company's existing gen-

eration, distribution and transmission concessions. Concessions and extensions of concessions are granted by the MME and ANEEL.

In June 1999, the MME issued a resolution extending the concessions for the Company's generation plants. In accordance with the resolution, the MME, ANEEL and the Company signed the new generation concessions in June 1999. For plants whose concessions had officially expired, the resolution extended the concessions for 20 years beginning July 1995 when the concessions had officially expired. For other plants whose terms have not expired, the Company will have the option to extend their concessions for 20 years. Also in June 1999, the MME, ANEEL and the Company signed a new concession agreement for the distribution of electric energy by the Company. The distribution concession expires in July 2015. The Company's management expects that in the near future, the MME, ANEEL and the Company will sign a new transmission concession agreement.

## Competition

COPEL has been granted concessions to generate and distribute electricity in an area comprising substantially all of the area of Paraná and does not face competition from the three small utilities that have been granted concessions for the remainder of the State. As a result of recent legislation, however, it may become possible for other suppliers to offer electricity to COPEL's existing customers at prices lower than those currently charged by COPEL. Furthermore, pursuant to the Concessions Law, distribution and transmission companies will be required to permit the use of their lines and ancillary facilities for the distribution and transmission of electricity by and to third parties upon payment of a tariff. Such tariffs will be calculated based upon the extent of the transmission and distribution networks used and the location of the generation facility to the final user.

Customers that may contract with other suppliers for electricity ("Unregulated Customers") are limited to: (i) existing customers with demand of at least 10 MW and supplied at voltage level equal to or greater than 69 kV; (ii) new customers with demand of at least 3 MW at any voltage; (iii) groups of customers subject to agreement with the local distribution concessionaire; and (iv) customers who do not receive supply for more than 180 days from a local distribution concessionaire. At December 31, 1998, COPEL had 22 customers that qualified as Unregulated Customers. Such customers represented approximately 12.9% of COPEL's total volume of electricity sold to final customers in the month of December 1998, and approximately 6% of COPEL's total revenues for that month.

In the generation business, IPPs may be granted concessions to build or manage generating facilities in Paraná. Further, certain clients may bid only for demand over 10 MW in order to obtain the right to generate electricity for their own use, in which case any such client would be deemed a self-producer.

In the transmission business, the new legislation provides for competitive bidding for transmission concessions that will form part of the wholesale energy market. To the extent that new participants are granted transmission concessions in COPEL's concession area, COPEL may face significant competitive pressures to charge transmission rates below those it would otherwise be entitled to charge.

In addition, COPEL may face competition in the distribution of energy to large industrial customers. New and existing large customers of COPEL now have several alternatives, including (i) installing their own lines directly from a generation company, (ii) paying a toll to a distribution and transmission company while arranging for a supply contract with a generation company, (iii) negotiating a contract with a distribution company and (iv) self-generation. COPEL is a public sector company which will face competition from international private sector operators in the new environment, many of which have more experience in deregulated markets than COPEL.

Brazilian law requires that all of COPEL's concessions be subject to a competitive bidding process upon their expiration. COPEL intends to apply for the extension of each concession upon its expiration. COPEL may face significant competition from third parties in bidding for renewal of such concession.

sions or for any new concessions. The acquisition of certain concessions by third parties or by certain large industrial clients could adversely affect COPEL's results of operations.

# **Employees**

At year-end 1998, the Company had 7,442 employees (one employee per 360 customers), a decrease from 7,991 employees (one per 324 customers) at year-end 1997 and 8,602 (one per 291 customers) at year-end 1996. At May 1999, the number of employees decreased to 6,578. The decrease in employees reflects COPEL's efforts to improve operating efficiency by reducing the size of its workforce through attrition and early retirement programs.

The following table sets forth the number of employees in each area of COPEL's operations at December 31, 1998.

Area	Number of employees
Other	50
Engineering/Construction	515
Administrative	1,308
Generation/Transmission	1,637
Distribution	<u>3,932</u>
Total	7,442

Virtually all of COPEL's employees are covered by union agreements that are renegotiated annually between the Company and the unions that represent the various employee groups. In 1998, the Company negotiated and signed labor agreements with unions representing all the employee groups, effective October 1, 1998, with one-year terms. Legal proceedings relating to a labor claims from the two prior contract years were settled, and the Company made payments aggregating R\$29.5 million in connection with the settlement.

COPEL provides a number of benefits to its employees, the most significant of which is the Company's sponsorship of Fundação COPEL. The primary purpose of Fundação COPEL is to supplement the Federal Government retirement and health benefits available to COPEL's employees. A special meeting of shareholders held in October 1998 approved a new benefit plan, which affords employees the option of a flexible defined contribution plan and eliminates the risks of underfunding for the sponsor and the participants. Approximately 92.8% of COPEL's employees had opted for the new plan at year-end 1998. For a discussion of the impact of the change in the pension plan on the Company's financial performance, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations for the Year Ended December 31, 1998 and 1997—Total Operating Expenses—Pension and Other Benefits."

As required by federal law and corporate compensation policy, COPEL reserved R\$14 million for employee participation in 1998 profits. The amount, determined in accordance with an agreement with an employee committee, is subject to approval by the Board of Directors and the shareholders. Employees are entitled to participate in profits in years in which the ratio of net profits to net worth is at least 3.5% and certain performance criteria are met. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations for the Year Ended December 31, 1998 and 1997—Employee Participation."

### **Research and Development**

The Company continues to work closely with the Federal University of Paraná (the "Federal University") in various research and development projects, including projects carried out at the Centro de Hidráulica e Hidrologia Professor Parigot de Souza – CEHPAR ("CEHPAR"). Research at CEHPAR fo-

cuses primarily on fluid mechanics, hydraulics, hydrology, water resources and energy studies. Several important hydropower projects in Brazil and abroad, including Itaipu, were studied and improved upon at the institution. CEHPAR is currently conducting model studies of the following hydroelectric plants: Dona Francisca, Machadinho, Mascarenhas, Salto Caxias, Itá and Campos Novos.

The Company holds a minority interest in the Instituto Tecnológico do Laboratório Central de Pesquisa e Desenvolvimento – LACTEC ("LACTEC"). LACTEC's objectives are to provide services, products and technological solutions to the electrical sector and other industries. LACTEC has been conducting several research projects for the Company and providing certain other technical services in the fields of electronics, mechanics, materials and chemistry. LACTEC and the Company have been working to carry out power utilization studies and improve the efficiency of public lighting in Curitiba and other cities. These programs are carried out under a program initiated by Eletrobrás to reduce power waste. LACTEC, through COPEL, has also obtained resources from the Federal Government to create a Vehicle Emissions Laboratory, the first of its kind in Southern Brazil and the most advanced in the country. In 1998, the Company invested approximately R\$20 million in several laboratories that are operated by LACTEC. The Company and LACTEC jointly founded the Centro Tecnológico Industrial do Sudoeste Paranaense – CETIS, a technological and industrial center. In 1998, the Company invested R\$2.8 million in CETIS.

Laboratório de Materiais e Estruturas – LAME ("LAME") is a research and service center focusing on basic and applied research in the disciplines related to the development and quality control of civil engineering materials, including geotechnical engineering, characterization of rocks and soil, physical and mathematical structural models, and issues of quality control in the Company's construction projects, including studies of roller compacted concrete and another new technologies. LAME has been directly involved in the construction of the Jordão River diversion project, Salto Caxias, Tucuruí and Dona Francisca. LAME is a joint venture between the Company and the Federal University.

Sistema Metereológico do Paraná – SIMEPAR ("SIMEPAR") is an innovative technological venture in atmospheric and environmental sciences supported by COPEL in association with the Agronomy Institute and the Federal University. SIMEPAR focuses on hydro-meteorological and environmental monitoring for Paraná and neighboring regions, meteorological, climatic and environmental forecasts, research and development for data oriented applications and forecasts and rendering of services in the verification and calibration of hydro-meteorological and environmental sensors and equipment.

### **Environment**

COPEL's construction and operation activities are subject to comprehensive federal, state and municipal environmental regulation. COPEL has created an Advisory Committee that is responsible for the implementation of COPEL's environmental policies through environmental impact studies and related programs. The Company's management believes that COPEL is in substantial compliance with all reb-vant environmental regulation.

The Company's management estimates that approximately 25% of the Company's budget for the construction of the Salto Caxias power plant will be used to implement environmental programs. Of that amount, approximately R\$130 million will be spent for community resettlement, approximately R\$70 million for payments for land condemnation and approximately R\$50 million for social welfare programs for resettled parties and environmental rehabilitation.

### **The Condemnation Process**

Although COPEL receives concessions from the Federal Government to construct hydroelectric projects, it does not receive title to the land on which the projects are located. Land required for the implementation of COPEL's projects may only be condemned pursuant to specific legislation. COPEL generally negotiates with communities and individual owners occupying the land so as to resettle such communities in other areas and to compensate individual owners. COPEL's policy of resettlement and com-

pensation generally has resulted in the settlement of condemnation disputes. At December 31, 1998, COPEL estimated its reimbursement liability with respect to properties condemned to be approximately R\$11 million.

#### Insurance

COPEL maintains insurance for fire, accidents involving third parties and certain other risks associated with the transportation and assembly of equipment. COPEL does not have insurance coverage for business interruption risk because it does not believe that the high premiums are justified by the low risk of major interruption, considering the energy available in the Interconnected Power System—South/Southeast. COPEL believes that it maintains insurance that is both customary in Brazil and adequate for the businesses in which it is engaged.

# Item 2. Description of Property

The principal properties of COPEL consist of the generation, transmission and distribution facilities described in "Description of Business—Operations of COPEL." Of the net book value of total property, plant and equipment of COPEL at December 31, 1998 (including construction in progress), generation facilities represented 57.4%, transmission and distribution facilities represented 39.1% and other miscellaneous property and equipment represented 3.5%. The Company's management believes that its facilities generally are adequate for its present needs and suitable for their intended purposes.

Although COPEL receives concessions from the Federal Government to construct hydroelectric projects, it does not receive title to the land underlying the projects. Land required for the implementation of COPEL's projects may only be condemned pursuant to specific legislation. See "Description of Business—The Condemnation Process."

# Item 3. Legal Proceedings

COPEL is the defendant in several lawsuits brought by industrial customers alleging that increases in electricity tariffs during a price freeze imposed by the Federal Government from March through November 1986 (the "Cruzado Period") were illegal. COPEL had officially decided on the increases before the freeze took effect, but the relevant publication did not appear until after the effective date of the freeze. The plaintiffs further allege that all COPEL's tariff increases after the Cruzado Period were illegal in part because they included the Cruzado Period increases in the amounts that served as the basis for calculating the further increases. In the aggregate, the claims amount to approximately R\$9.9 million and at December 31, 1998, COPEL had fully reserved for these claims. See Note 21 to the Financial Statements.

If all the companies that were industrial customers of COPEL during the Cruzado Period were to bring suit against COPEL and receive favorable judgments with respect to the tariff increases during the Cruzado Period, COPEL estimates that the relevant aggregate liability would be approximately R\$24 million. COPEL has not sought to quantify the cost to COPEL if all such customers sued and won favorable judgments regarding tariff increases after the Cruzado Period, but COPEL's management is of the view that such circumstances could have a material adverse effect on the financial condition and results of operations of COPEL.

COPEL is actively contesting all the claims that have been brought regarding these rate increases. Some of the cases have been decided at the trial court level in favor of COPEL, and some have been decided in favor of the customers. All the cases that have been decided have been appealed, and there have not as yet been any judgments on appeal. There has, however, been a judgment in an appellate proceeding involving two utilities other than COPEL in which the Superior Tribunal of Justice ruled that the plaintiffs were not entitled to reimbursement for tariff increases introduced after the Cruzado Period.

COPEL is also a party to certain lawsuits pursuant to which it is disputing the legality or constitutionality of certain federal taxes and social contributions assessed against COPEL. COPEL believes that none of these taxes and social contributions is due. During 1998, COPEL won its lawsuit challenging its obligations to pay COFINS, a tax to finance social security. COPEL has fully reserved for the contingent liabilities in respect on the remaining pending lawsuits, in the aggregate amount of R\$55.8 million at December 31, 1998. See Note 19 to the Financial Statements.

The employees' union filed a judicial proceeding against the Company regarding the collective bargaining agreement for the years 1997 and 1998. The decision was in favor of the employees' union, ordering the Company to pay a wage increase of 7.2% to the employees. The Company appealed the decision to the Labor Supreme Court. In October 1998, the employees' union and the Company settled the case and the Company paid the employees a bonus totaling R\$29.5 million for all employees.

COPEL is also a party to actions before various courts and governmental agencies involving environmental, tax, civil and labor claims arising in the ordinary course of business totaling approximately R\$73.8 million, including certain actions with respect to which COPEL considers the probability of loss to be remote. Several of these suits involve claims by contractors that rendered services in connection with the construction of the Segredo facility. In two of the actions related to the Segredo facility, the lower courts have ruled against COPEL and COPEL has appealed; no decisions have been rendered in the others. At December 31, 1998, COPEL had reserved R\$43.5 million for claims of contractors related to the Segredo facility. See Note 21 to the Financial Statements.

A final judgment in favor of COPEL was rendered by the Brazilian Supreme Court in October 1997 in connection with a group of lawsuits brought by labor unions and individual employees seeking compensation for lost wages resulting from implementation of an anti-inflationary plans in early 1989.

# Item 4. Control of Registrant

References in this Annual Report to the "Common Shares," "Class A Shares" and "Class B Shares" are to the common shares, class A preferred shares and class B preferred shares, respectively, of the Company. References to "American Depositary Shares" or "ADSs" are to American Depositary Shares, each representing 1,000 Class B Shares. The ADSs are evidenced by American Depositary Receipts ("ADRs").

Since 1954, the State Government has owned the majority of COPEL's Common Shares and exercised control over COPEL. In 1996, Paraná Investimentos S.A. (a company controlled by the State Government) issued debentures that were purchased by BNDESPAR. BNDESPAR exchanged the &bentures for the Common Shares in the Company held by Paraná Investimentos. At May 1, 1999, the State Government directly owned 58.6% of the Common Shares. At May 1, 1999, BNDESPAR owned directly and indirectly 26.4% of the Common Shares. The State Government has announced its intention to privatize COPEL.

The following table sets forth certain information regarding the ownership of COPEL's Common Shares at December 31, 1998.

Shareholder	Common Shares	% of total
State Government	85,028,464,412	58.6
BNDESPAR	38,298,775,066	26.4
Eletrobrás	1,530,774,648	1.1
All directors and officers as a group	2,200,001	0

### Shareholders' Agreement

On December 22, 1998, the State of Paraná and BNDESPAR (with COPEL and Paraná Investimentos as intervening parties) executed a shareholders' agreement and an option agreement (respectively,

the "Shareholders' Agreement" and the "Option Agreement"). The Shareholders' Agreement will remain in effect until BNDESPAR ceases to be a shareholder of COPEL or for a period of 20 years, whichever occurs first. See "Description of Business—The Proposed Privatization of COPEL."

Under the Option Agreement, the State of Paraná is obliged to buy shares of COPEL held by BNDESPAR within 24 hours following BNDESPAR's request. The price to be paid by the State of Paraná will be tied to the ratio at which BNDESPAR exchanged its debentures for shares in COPEL and the price reached in the auction. Costs incurred due to the auction cannot be offset against the price paid to BNDESPAR. If the shares remain in BNDESPAR's ownership, BNDESPAR will have the right to require the shares it holds to be included as part of the controlling stake to be sold by the State or to sell the shares to third parties.

Pursuant to the Shareholders' Agreement, if the option to buy common shares under the Option Agreement is not exercised, the State of Paraná is obligated to acquire, within 24 hours of BNDESPAR's request, such shares for the sole purpose of including them in the privatization of the Company. In addition, the State of Paraná must purchase for inclusion in the privatization the common shares issued by the Company that are acquired by BNDESPAR.

If the privatization occurs prior to or on June 30, 2000, the State of Paraná shall acquire BNDES-PAR's common shares for a purchase price equal to (i) the purchase price for the common shares paid by BNDESPAR, bearing interest at TJLP plus 8% per year, and (ii) 20% of the positive difference, if any, between the sale price of the common shares at auction and the amount calculated pursuant to clause (i). In the event the privatization occurs between July 1, 2000 and December 31, 2000, the State of Paraná shall acquire BNDESPAR's common shares for a purchase price equal to (i) the purchase price for the common shares paid by BNDESPAR, bearing interest at TJLP plus 8% per year, and (ii) 50% of the positive difference, if any, between the sale price of the common shares at auction and the amount calculated pursuant to clause (i).

If BNDESPAR does not request the State of Paraná to purchase its common shares for inclusion in the privatization, BNDESPAR has the right to place such common shares up for auction.

In the event that the State of Paraná holds the privatization sale after December 31, 2000, BNDESPAR will have the right to require the inclusion of its common shares in the controlling state of the Company to be sold or to sell its common shares in one or more lots to interested third parties.

Beginning 24 months after the date of execution of the Shareholders' Agreement, the State of Paraná, in its capacity of controlling shareholder of the Company, will elect two members indicated by BNDESPAR to the Board of Directors and designate one member to COPEL's Board of Officers. Also effective 24 months after the date of execution of the Shareholders' Agreement, the State of Paraná cannot approve, without BNDESPAR's prior authorization, the following: (i) amendment of COPEL's bylaws; (ii) reduction or increase of capital; (iii) change in COPEL's corporate purpose; (iv) grouping or split of shares issued; (v) reserves, funds or accounting provisions that affect the rights and interests of minority shareholders; (vi) cessation of corporate liquidation; (vii) merger, amalgamation, spin-off, transformation, transfer or acquisition of interests in other companies; (viii) adoption of policy with respect to minority shareholders in the case of merger, amalgamation, split-off and transfer of control in COPEL; and (ix) change in mandatory dividend.

## Item 5. Nature of Trading Market

The principal trading market for the Class B Shares is the Bolsa de Valores de São Paulo (the "São Paulo Stock Exchange"). The Class B Shares are also traded on the Bolsa de Valores do Rio de Janeiro (the "Rio de Janeiro Stock Exchange") and the Bolsa de Valores do Paraná (the "Paraná Stock Exchange"). At December 31, 1998, the Company had approximately 1,126 shareholders of Class B Shares.

The following table sets forth the reported high and low closing sale prices for the Class B Shares on the São Paulo Stock Exchange for the periods indicated.

	Nominal <i>reais</i> per 1,000 Class B Shares	
	High	Low
First quarter 1998.	17.50	13.00
Second quarter 1998	16.50	8.80
Third quarter 1998	14.00	3.90
Fourth quarter 1998	12.01	6.90

In the United States, the Class B Shares trade in the form of ADSs, each representing 1,000 Class B Shares, issued by The Bank of New York, as depositary (the "Depositary") pursuant to a Deposit Agreement (the "Deposit Agreement") among the Company, the Depositary and the registered holders and beneficial owners from time to time of the ADRs. The ADSs trade under the symbol ELP. The following table sets forth the reported high and low closing sales prices for ADSs on the NYSE for the period indicated.

	U.S. dollars per ADS	
·	High	Low
First quarter 1998	151/2	119/16
Second quarter 1998	$14^{5}/_{8}$	$7^{3}/_{4}$
Third quarter 1998	12	$3^{3}/_{16}$
Fourth quarter 1998.	$10^{1/16}$	$5^{3}/_{4}$

## **Trading on the Brazilian Stock Exchanges**

Of Brazil's nine stock exchanges, the São Paulo Stock Exchange and the Rio de Janeiro Stock Exchange are the most significant. During 1998, the São Paulo Stock Exchange accounted for 97.55% of the trading value of equity securities on all Brazilian stock exchanges, and the São Paulo Stock Exchange and the Rio de Janeiro Stock Exchange together accounted for approximately 99.97% of the trading value of equity securities on all Brazilian stock exchanges.

Each Brazilian stock exchange is a nonprofit entity owned by its member brokerage firms. Trading on each exchange is limited to member brokerage firms and a limited number of authorized nonmembers. The São Paulo Stock Exchange and the Rio de Janeiro Stock Exchange have two open outcry trading sessions each day, from 10:30 a.m. to 1:30 p.m. and from 2:30 p.m. to 5:30 p.m., though the Rio de Janeiro Stock Exchange has recently announced plans to convert its operations to electronic trading. Trading is also conducted from 10:00 a.m. to 6:00 p.m. on an automated system on the São Paulo Stock Exchange and on the National Electronic Trading System ("SENN"), a computerized system that links the Rio de Janeiro Stock Exchange electronically with the seven smaller regional exchanges. There are no specialists or market makers for the Company's shares on the São Paulo Stock Exchange. Trading in securities listed on the Brazilian stock exchanges may be effected off the exchanges in certain circumstances, although such trading is very limited.

Settlement of transactions is effected three business days after the trade date without adjustment of the purchase price for inflation. Payment for shares is made through the facilities of separate clearing-houses for each exchange, which maintain accounts for member brokerage firms. The seller is ordinarily required to deliver the shares to the exchange on the second business day following the trade date. The clearinghouse for the São Paulo Stock Exchange is Companhia Brasileira de Liquidação e Custódia S.A. – CBLC, which is controlled mainly by the member brokerage firms and banks that are not members of that exchange. The clearinghouse for the Rio de Janeiro Stock Exchange is CLC – Câmara de Liquidação e Custódia S.A., which is 99% owned by that exchange.

At December 31, 1998, the aggregate market capitalization of the 527 companies listed on the São Paulo Stock Exchange was approximately US\$160.9 billion. Substantially the same securities are

listed on the São Paulo Stock Exchange and on the Rio de Janeiro Stock Exchange. Although all the outstanding shares of an exchange-listed company may trade on a Brazilian stock exchange, in most cases less than half of the listed shares are actually available for trading by the public, the remainder being held by small groups of controlling persons that rarely trade their shares. For this reason, data showing the total market capitalization of Brazilian stock exchanges tend to overstate the liquidity of the Brazilian equity securities market.

The Brazilian equity market is relatively small and illiquid compared to major world markets. In 1998, the combined daily trading volumes on the São Paulo Stock Exchange and the Rio de Janeiro Stock Exchange averaged approximately US\$757.7 million. In 1998, the five most actively traded issues represented approximately 61.5% of the total trading in the cash market on the São Paulo Stock Exchange and approximately 67.21% of the total trading in the cash market on the Rio de Janeiro Stock Exchange.

Trading on Brazilian stock exchanges by nonresidents of Brazil is subject to certain limitations under Brazilian foreign investment legislation.

# **Regulation of Brazilian Securities Markets**

The Brazilian securities markets are regulated by the CVM, which has authority over stock exchanges and the securities markets generally, and by the Central Bank, which has, among other powers, licensing authority over brokerage firms and regulates foreign investment and foreign exchange transactions. The Brazilian securities market is governed by Law No. 6,385, as amended (the "Brazilian Securities Law") and Law No. 6,404, as amended (the "Brazilian Corporation Law").

Under the Brazilian Corporation Law, a company is either public, a *companhia aberta*, such as the Company, or private, a *companhia fechada*. All public companies are registered with the CVM and are subject to reporting requirements. A company registered with the CVM may have its securities traded either on the Brazilian stock exchanges or in the Brazilian over-the-counter market. The shares of a public company may also be traded privately, subject to certain limitations. To be listed on the Brazilian stock exchanges, a company must apply for registration with the CVM and the stock exchange where the head office of the company is located. Once this stock exchange has admitted a company to listing and the CVM has accepted its registration as a public company, its securities may be traded on all other Brazilian stock exchanges.

Trading in securities on the Brazilian stock exchanges may be suspended at the request of a company in anticipation of a material announcement. Trading may also be suspended on the initiative of a Brazilian stock exchange or the CVM, among other reasons, based on or due to a belief that a company has provided inadequate information regarding a material event or has provided inadequate responses to inquiries by the CVM or the relevant stock exchange.

The Brazilian Securities Law provides for, among other things, disclosure requirements, restrictions on insider trading and price manipulation, and protection of minority shareholders. However, the Brazilian securities markets are not as highly regulated and supervised as the United States securities markets or markets in certain other jurisdictions.

# Item 6. Exchange Controls and Other Limitations Affecting Security Holders

There are no restrictions on ownership of Class A Shares, Class B Shares or Common Shares of the Company by individuals or legal entities domiciled outside Brazil.

The right to convert dividend payments and proceeds from the sale of shares into foreign currency and to remit such amounts outside Brazil is subject to restrictions under foreign investment legislation which generally requires, among other things, that the relevant investments have been registered with the Central Bank. Such restrictions on the remittance of foreign capital abroad may hinder or prevent Banco Itaú S.A. (the "Custodian"), as custodian for the Class B Shares represented by ADSs, or holders who have exchanged ADRs for Class B Shares from converting dividends, distributions or the proceeds

from any sale of such Class B Shares, as the case may be, into U.S. dollars and remitting such U.S. dollars abroad. Holders of ADSs could be adversely affected by delays in, or refusal to grant any, required government approval for conversions of Brazilian currency payments and remittances abroad of the Class B Shares underlying the ADSs.

Under Annex IV to Resolution No. 1,289 of the National Monetary Council, as amended (the "Annex IV Regulations"), qualified foreign investors (which principally include foreign financial institutions, insurance companies, pension and investment funds, charitable foreign institutions and other institutions that meet certain minimum capital and other requirements) registered with the CVM and acting through authorized custody accounts managed by local agents may buy and sell shares on Brazilian stock exchanges without obtaining separate Certificates of Registration for each transaction. Investors under the Annex IV Regulations are also entitled to favorable tax treatment. See "Taxation—Brazilian Tax Considerations." Resolution No. 1,927 of the National Monetary Council, which is the restated and amended Annex V to Resolution No. 1,289 of the National Monetary Council (the "Annex V Regulations"), provides for the issuance of depositary receipts in foreign markets in respect of shares of Brazilian issuers. The ADS program had been approved under the Annex V Regulations by the Central Bank and the CVM prior to the issuance of the ADSs. Accordingly, the proceeds from the sale of ADSs by ADR holders outside Brazil are free of Brazilian foreign investment controls and holders of the ADSs will be entitled to favorable tax treatment. See "Taxation—Brazilian Tax Considerations."

A Certificate of Registration has been issued in the name of the Depositary with respect to the ADSs and is maintained by the Custodian on behalf of the Depositary. Pursuant to the Certificate of Registration, the Custodian and the Depositary are able to convert dividends and other distributions with respect to the Class B Shares represented by ADSs into foreign currency and remit the proceeds outside Brazil. In the event that a holder of ADSs exchanges such ADSs for Class B Shares, such holder will be entitled to continue to rely on the Depositary's Certificate of Registration for five business days after such exchange, following which such holder must seek to obtain its own Certificate of Registration with the Central Bank in one of the registered investment categories authorized by the Central Bank. Thereafter, any holder of Class B Shares may not be able to convert into foreign currency and remit outside Brazil the proceeds from the disposition of, or distributions with respect to, such Class B Shares, unless such holder qualifies under any of the registered investment categories authorized by the Central Bank. A holder that obtains a Certificate of Registration will be subject to less favorable Brazilian tax treatment than a holder of ADSs. See "Taxation—Brazilian Tax Considerations."

Under current Brazilian legislation, the Federal Government may impose temporary restrictions on remittances of foreign capital abroad in the event of a serious imbalance or an anticipated serious imbalance of Brazil's balance of payments. For approximately six months in 1989 and early 1990, the Federal Government froze all dividend and capital repatriations held by the Central Bank that were owed to foreign equity investors, in order to conserve Brazil's foreign currency reserves. These amounts were subsequently released in accordance with Federal Government directives. The imbalance in Brazil's balance of payments increased during 1998, and there can be no assurance that the Federal Government will not impose similar restrictions on foreign repatriations in the future.

### Item 7. Taxation

The following summary contains a description of the principal Brazilian and U.S. federal income tax consequences of the acquisition, ownership and disposition of Class B Shares or ADSs, but it does not purport to be a comprehensive description of all the tax considerations that may be relevant to a decision to purchase Class B Shares or ADSs. The summary is based upon the tax laws of Brazil and regulations thereunder and on the tax laws of the United States and regulations thereunder as in effect on the date hereof, which are subject to change. **Prospective purchasers of Class B Shares or ADSs should consult their own tax advisors as to the tax consequences of the acquisition, ownership and disposition of Class B Shares or ADSs.** 

Although there is at present no income tax treaty between Brazil and the United States, the tax authorities of the two countries have had discussions that may culminate in such a treaty. No assurance can be given, however, as to whether or when a treaty will enter into force or how it will affect the U.S. holders of Class B Shares or ADSs. Prospective holders of Class B Shares or ADSs should consult their own tax advisors as to the tax consequences of the acquisition, ownership and disposition of Class B Shares or ADSs in their particular circumstances.

## **Brazilian Tax Considerations**

The following discussion summarizes the principal Brazilian tax consequences of the acquisition, ownership and disposition of Class B Shares or ADSs by a holder not deemed to be domiciled in Brazil for Brazilian tax purposes (a "non-Brazilian holder"). This discussion does not address all the Brazilian tax considerations that may be applicable to any particular non-Brazilian holder, and each non-Brazilian holder should consult his or her own tax advisor about the Brazilian tax consequences of investing in Class B Shares or ADSs.

# Taxation of Dividends

Dividends paid by the Company in cash or in kind from profits of periods beginning on or after January 1, 1996 (i) to the Depositary in respect of Class B Shares underlying ADSs or (ii) to a non-Brazilian holder in respect of Class B Shares will generally not be subject to Brazilian withholding tax. Dividends paid from profits generated before January 1, 1996 may be subject to Brazilian withholding tax at varying rates, except that stock dividends are not subject to Brazilian tax unless the stock is subsequently redeemed by the Company, or the non-Brazilian holder sells the stock in Brazil, within five years after the distribution.

The only Brazilian tax treaty now in effect that would (if certain conditions are met) reduce the rate of the withholding tax on dividends paid from profits generated before January 1, 1996 is the treaty with Japan, which would reduce the rate to 12.5% under the circumstances set forth in the treaty.

### Taxation of Gains

Gains realized outside Brazil by a non-Brazilian holder on the disposition of ADSs to another non-Brazilian holder are not subject to Brazilian tax. Neither the deposit of Class B Shares in exchange for ADSs nor the withdrawal of Class B Shares upon cancellation of ADSs is subject to Brazilian tax.

Non-Brazilian holders are not subject to tax in Brazil on gains realized on dispositions of Class B Shares outside Brazil to other non-Brazilian holders.

Gains realized by non-Brazilian holders on dispositions of Class B Shares in Brazil or in transactions with Brazilian residents may be free of Brazilian tax, taxed at a rate of 10% or taxed at a rate of 15%, depending on the circumstances. Gains on the disposition of Class B Shares obtained upon cancellation of ADSs are not taxed in Brazil if such disposition is made, and the proceeds are remitted abroad, within five business days after cancellation. Gains on the sale or exchange of duly-registered investments under the Annex IV Regulations are not subject to Brazilian tax if such sale or exchange occurs on a Brazilian stock exchange. If such sale or exchange occurs off of a Brazilian stock exchange, any resulting gain will be subject to tax at a rate of 15%. Gains realized through transactions on Brazilian stock exchanges are generally subject to tax at a rate of 10%. Gains realized through off-exchange transactions in Brazil or with Brazilian residents are generally subject to tax at a rate of 15%. Brazil's tax treaties do not grant relief from taxes on gains realized on sales or exchanges of Class B Shares.

Any gains realized by a non-Brazilian holder upon the redemption of Class B Shares will be treated as gains from the disposition of such Class B Shares to a Brazilian resident occurring off of a stock exchange and will accordingly be subject to tax at a rate of 15%.

Gain is measured by the difference between the amount in Brazilian currency realized on the sale or exchange and the acquisition cost of the shares sold, measured in Brazilian currency without any cor-

rection for inflation; the acquisition cost of shares registered as an investment with the Central Bank is calculated on the basis of the foreign currency amount registered with the Central Bank.

There can be no assurance that the current preferential treatment for holders of ADSs and non-Brazilian holders of Class B Shares under the Annex IV Regulations will be maintained.

Any exercise of preemptive rights relating to the Class B Shares or ADSs will not be subject to Brazilian taxation. Gains on the sale or assignment of preemptive rights relating to the Class B Shares will be treated differently for Brazilian tax purposes depending on (i) whether the sale or assignment is made by the Depositary or the investor and (ii) whether the transaction takes place on a Brazilian stock exchange. Gains on sales or assignments made by the Depositary on a Brazilian stock exchange are not taxed in Brazil, but gains on other sales or assignments may be subject to tax at rates up to 15%.

# Distributions of Interest on Capital

Brazilian corporations may make payments to shareholders characterized as interest on capital of the Company. The rate of interest may not be higher than the Federal Government's long-term interest rate (the "TJLP") as determined by the Central Bank from time to time (13.48% per annum for the three month period starting April 1999). The total amount distributed as interest on capital may not exceed the greater of (i) 50% of net income (before taking such distribution and any deductions for income taxes into account) for the year in respect of which the payment is made or (ii) 50% of retained earnings for the year prior to the year in respect of which the payment is made. Payments of interest on capital are decided by the shareholders on the basis of recommendations of the company's board of directors.

Distributions of interest on capital paid to Brazilian and non-Brazilian holders of Class B Shares, including payments to the Depositary in respect of Class B Shares underlying ADSs, are deductible by the Company for Brazilian corporate income tax purposes Such payments are subject to Brazilian withholding tax at the rate of 15%, except for payments to persons who are exempt from tax in Brazil, which are free of Brazilian tax, and except for payments to persons situated in jurisdictions deemed to be tax havens (*i.e.*, countries that either have no income tax or in which the income tax rate is less than 20%), which are subject to tax at a 25% rate.

No assurance can be given that the Board of Directors of the Company will not recommend that future distributions of profits should be made by means of interest on capital instead of by means of dividends.

Amounts paid as interest on capital (net of applicable withholding tax) may be treated as payments in respect of the dividends the Company is obligated to distribute to its shareholders in accordance with its *estatuto social* (the "Charter") and the Brazilian Corporation Law. See "Selected Financial Data—History of Dividend Payments."

Distributions of interest on capital in respect of the Class B Shares, including distributions to the Depositary in respect of Class B Shares underlying ADSs, may be converted into U.S. dollars and remitted outside of Brazil, subject to applicable exchange controls.

### Other Brazilian Taxes

There are no Brazilian inheritance, gift or succession taxes applicable to the ownership, transfer or disposition of Class B Shares or ADSs by a non-Brazilian holder except for gift and inheritance taxes levied by some states in Brazil on gifts made or inheritances bestowed by individuals or entities not resident or domiciled in Brazil or in the relevant State to individuals or entities that are resident or domiciled within such State in Brazil. There are no Brazilian stamp, issue, registration, or similar taxes or duties payable by holders of Class B Shares or ADSs.

A financial transaction tax (the "IOF tax") may be imposed on the conversion of Brazilian currency into foreign currency (e.g., for purposes of paying dividends and interest). The rate of IOF tax rate

on such conversions is currently 0%, but the Minister of Finance has the legal power to increase the rate to a maximum of 25%. Any such increase will be applicable only prospectively.

In addition to the IOF tax, a second, temporary tax that applies to the removal of funds from accounts at banks and other financial institutions (the "CPMF tax") will be imposed on distributions by the Company in respect of ADSs at the time such distributions are converted into U.S. dollars and remitted abroad by the Custodian. The CPMF tax will be in effect until June 2002, unless its term is extended, and such tax will be imposed at a rate of 0.38% from June 1999 until June 2000 and at a rate of 0.30% from June 2000 until June 2002.

# Registered Capital

Amounts invested in Class B Shares by a non-Brazilian holder who qualifies under the Annex IV Regulations and obtains registration with the CVM, or by the Depositary representing an ADS holder, are eligible for registration with the Central Bank. Such registration (the amount so registered is referred to as "Registered Capital") allows the remittance outside Brazil of foreign currency, converted at the Commercial Market Rate, acquired with the proceeds of distributions on, and amounts realized through dispositions of such Class B Shares. The Registered Capital per Class B Share purchased in the form of an ADS, or purchased in Brazil and deposited with the Depositary in exchange for an ADS, will be equal to its purchase price (stated in U.S. dollars). The Registered Capital per Class B Share withdrawn upon cancellation of an ADS will be the U.S. dollar equivalent of (i) the average price of a Class B Share on the Brazilian stock exchange on which the most Class B Shares were traded on that day, the average price on the Brazilian stock exchange on which the most Class B Shares were traded in the fifteen trading sessions immediately preceding such withdrawal. The U.S. dollar equivalent will be determined on the basis of the average Commercial Market Rates quoted by the Central Bank on such date or dates.

A non-Brazilian holder of Class B Shares may experience delays in effecting Central Bank registration, which may delay remittances abroad. Such a delay may adversely affect the amount in U.S. dollars, received by the non-Brazilian holder.

## **U.S. Federal Income Tax Considerations**

The statements regarding U.S. tax law set forth below are based on U.S. law as in force on the date of this Annual Report, and changes to such law subsequent to the date of this Annual Report may affect the tax consequences described herein. This summary describes the principal tax consequences of the ownership and disposition of the Class B Shares or ADSs, but it does not purport to be a comprehensive description of all of the tax consequences that may be relevant to a decision to hold or dispose of the Class B Shares or ADSs. This summary applies only to purchasers of the Class B Shares or ADSs who will hold the Class B Shares or ADSs as capital assets and does not apply to special classes of holders such as dealers in securities or currencies, holders whose functional currency is not the U.S. dollar, holders of 10% or more of the shares of the Company (taking into account shares held directly through depositary arrangements), tax-exempt organizations, financial institutions, holders liable for the alternative minimum tax, securities traders who elect to account for their investment in Class B Shares or ADSs on a mark-to-market basis, and persons holding Class B Shares or ADSs in a hedging transaction or as part of a straddle or conversion transaction.

Each holder should consult such holder's own tax advisor concerning the overall tax consequences to it, including the consequences under laws other than U.S. federal income tax laws, of an investment in Class B Shares or ADSs.

In this discussion, references to "ADSs" also refer to Class B Shares, references to a "U.S. holder" are to a holder of an ADS (i) that is a citizen or resident of the United States of America, (ii) that is a corporation organized under the laws of the United States of America or any state thereof, or (iii) that is otherwise subject to U.S. federal income taxation on a net basis with respect to the ADS.

For purposes of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), holders of ADRs will be treated as owners of the ADSs represented by such ADRs.

#### Taxation of Dividends

A U.S. holder will recognize ordinary dividend income for U.S. federal income tax purposes in an amount equal to the amount of any cash and the value of any property distributed by the Company as a dividend to the extent that such distribution is paid out of the Company's current or accumulated earnings and profits ("e&p"), as determined for U.S. federal income tax purposes, when such distribution is received by the Custodian or by the U.S. holder, in the case of a holder of Class B Shares. To the extent that such a distribution exceeds the Company's e&p, it will be treated as a nontaxable return of capital, to the extent of the U.S. holder's tax basis in the ADS (or Class B Shares, as the case may be), and thereafter as capital gain. The amount of any distribution will include the amount of Brazilian tax withheld on the amount distributed and the amount of a distribution paid in *reais* will be measured by reference to the exchange rate for converting *reais* into U.S. dollars in effect on the date the distribution is received by the Custodian, or by a U.S. holder, in the case of a holder of Class B Shares. If the Custodian or U.S. holder, in the case of a holder of Class B Shares on the date it receives them, it is possible that the U.S. holder will recognize foreign currency loss or gain, which would be ordinary loss or gain, when the *reais* are converted into U.S. dollars. Dividends paid by the Company will not be eligible for the dividends received deduction allowed to corporations under the Code.

Distributions out of e&p with respect to the ADSs generally will be treated as dividend income from sources outside of the United States and generally will be treated separately along with other items of "passive" (or, in the case of certain U.S. holders, "financial services") income for purposes of determining the credit for foreign income taxes allowed under the Code. Subject to certain limitations, Brazilian income tax withheld in connection with any distribution with respect to the ADSs may be claimed as a credit against the U.S. federal income tax liability of a U.S. holder if such U.S. holder elects for that year to credit all foreign income taxes, or such Brazilian withholding tax may be taken as a deduction. Foreign tax credits will not be allowed for withholding taxes imposed in respect of certain short-term or hedged positions in securities or in respect of arrangements in which a U.S. holder's expected economic profit, after non-U.S. taxes, is insubstantial. U.S. holders should consult their own tax advisors concerning the implications of these rules in light of their particular circumstances.

Distributions of additional shares to holders with respect to their ADSs that are made as part of a pro rata distribution to all shareholders of the Company generally will not be subject to U.S. federal income tax.

A holder of an ADS that is a foreign corporation or nonresident alien individual (a "non-U.S. holder") generally will not be subject to U.S. federal income tax or withholding tax on distributions with respect to ADSs that are treated as dividend income for U.S. federal income tax purposes, and generally will not be subject to U.S. federal income tax or withholding tax on distributions with respect to ADSs that are treated as capital gain for U.S. federal income tax purposes unless such holder would be subject to U.S. federal income tax on gain realized on the sale or other disposition of ADSs, as discussed below.

# Taxation of Capital Gains

Upon the sale or other disposition of an ADS, a U.S. holder will recognize gain or loss for U.S. federal income tax purposes in an amount equal to the difference between the amount realized in consideration for the disposition of the ADS (excluding the amount of any distribution paid to the Custodian but not distributed by the Custodian prior to the disposition) and the U.S. holder's tax basis in the ADS. Such gain or loss generally will be subject to U.S. federal income tax and will be treated as capital gain or loss. Long-term capital gains recognized by an individual holder generally are subject to a maximum rate of 20 percent in respect of property held for more than one year. The deductibility of capital losses is subject to certain limitations. Gain realized by a U.S. holder on a sale or disposition of ADSs generally will be

treated as U.S. source income. Consequently, if Brazilian tax is imposed on such gain, the U.S. holder will not be able to use the corresponding foreign tax credit, unless the holder has other foreign source income of the appropriate type in respect of which the credit may be used.

A non-U.S. holder will not be subject to U.S. federal income tax or withholding tax on gain realized on the sale or other disposition of an ADS unless (i) such gain is effectively connected with the conduct by the holder of a trade or business in the United States, or (ii) such holder is an individual who is present in the United States of America for 183 days or more in the taxable year of the sale and certain other conditions are met.

#### U.S. Backup Withholding and Information Reporting

The information reporting requirements of the Code generally will apply to distributions to a U.S. holder. Distributions to non-U.S. holders generally will be exempt from information reporting and backup withholding under current law but a non-U.S. holder may be required to establish its non-U.S. status in order to claim such exemption.

#### Item 8. Selected Financial Data

#### **Background**

The selected financial information presented below should be read in conjunction with the Financial Statements and the notes thereto. The Financial Statements have been audited by Arthur Andersen S/C and their reports on the Financial Statements appear elsewhere in this Annual Report.

The following paragraphs discuss some important features of the presentation of the selected financial information and the Financial Statements. These features should be kept in mind in evaluating the selected financial information and in reading "Management's Discussion and Analysis of Financial Condition and Results of Operations."

#### Brazilian GAAP and U.S. GAAP

The Financial Statements are prepared in accordance with Brazilian GAAP, which differ in certain material respects from generally accepted accounting principles in the United States ("U.S. GAAP"). See Note 34 to the Financial Statements for a summary of the differences between Brazilian GAAP and U.S. GAAP and a reconciliation to U.S. GAAP of shareholders' equity as of December 31, 1996, 1997 and 1998 and net income for the years ended December 31, 1996, 1997 and 1998.

#### Changes in Accounting Methodology in 1998

For any period prior to January 1, 1998, the Financial Statements and, unless otherwise specified, all financial information included in this Annual Report recognize certain effects of inflation and are restated in constant *reais* of December 31, 1997 purchasing power, all in accordance with Brazilian GAAP using the integral restatement method (*correção monetária integral*). The Company used the *Índice Geral de Preços – Mercado* ("IGP-M") to prepare its financial statements for 1996 and the *Índice Geral de Preços – Disponibilidade Interna* ("IGP-DI") to prepare its financial statements for 1997. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Effects of Changes in Presentation of Financial Statements in 1998." Inflationary gains or losses on monetary assets and liabilities were allocated to their corresponding income or expense caption in the Statements of Income.

For 1998, the Company has not restated the financial statements for recognizing the impact of inflation, because the low rate of Brazilian inflation in 1998 (1.8% as measured by the IGP-M) would have made any restatement for inflation insignificant. The Financial Statements as of and for the year ended December 31, 1998 are presented in nominal *reais* and do not recognize effects of inflation subsequent to December 31, 1997. The restated balances of nonmonetary assets and liabilities as of December 31, 1997, which reflect inflation through December 31, 1997, were used as the opening balances for 1998. Financial

statements for prior dates and periods, which were restated in constant *reais* of December 31, 1997, have not been further restated.

Difference from Financial Statements Published in Brazil

The notes to the Financial Statements include a reconciliation of shareholders' equity and net income as presented in the Financial Statements to the statutory financial statements prepared in accordance with the Brazilian Corporation Law (the "Statutory Financial Statements"). The Statutory Financial Statements are the basis for dividend and tax determinations. Neither the Statutory Financial Statements nor the Financial Statements include restatement effects as of and for the year ended December 31, 1998. The Financial Statements include the effects of restatements and constant currency updates for dates and periods prior to 1998. The Statutory Financial Statements include the effects of restatements and constant currency updates only for dates and periods prior to 1996. The Statutory Financial Statements also differ from the Financial Statements in respect of certain reclassifications and presentation of comparative information. See Notes 2a and 32 to the Financial Statements.

		As of and for	tne year ende	ea December	31,
	1998	1997	1996	1995	1994
To a constant Date	(	(millions of <i>red</i>	ais except per	r share data)	(1)
Income Statement Data:					
Brazilian GAAP	1.070	1.720	1.654	1 400	1 400
Operating revenues (2)	1,862	1,739	1,654	1,490	1,496
Industrial customers	485	473	460 561	468	508
Residential customers	714 332	633 304	561 288	420 274	388 272
Commercial customers	332 187	304 179	288 166	274 177	182
Rural and otherPublic services	42	39	38	41	42
Distributors	32	63	70	74	71
Interconnected Power System-South/Southeast	26	18	30	6	3
Use of transmission lines	10			_	_
Other revenues	35	30	40	30	30
Value-added tax on sales to final customers	(427)	(429)	(395)	(362)	(363)
Net operating revenues	1,435	1,310	1,259	1,128	1,133
Total operating expenses (3)	(1,092)	(1,015)	(978)	(1,190)	(1,080)
Electricity purchased for resale	(197)	(184)	(176)	(188)	(228)
Depreciation and amortization	(245)	(265)	(237)	(249)	(246)
Personnel	(314)	(308)	(283)	(349)	(311)
Regulatory charges	(107)	(88)	(86)	(115)	(123)
Use of transmission system charges	(27)	, ,	` ,	, ,	. ,
Third party services	(82)	(96)	(83)	(68)	(48)
Materials and supplies	(33)	(27)	(23)	(34)	(29)
Pension and other benefits	(62)	(31)	(29)	(146)	(36)
Other expenses	(25)	(16)	(62)	(42)	(59)
Operating income (Loss)	342	295	281	(62)	53
Equity in investments	(9)			<u> </u>	
Other income (expense)	145	109	49	41	112
Interest income (4)	168	139	82	75	109
Interest expense	(38)	(47)	(58)	(58)	(37)
Net exchange gains/(losses)(5)	(36)	41	49	27	41
Nonoperating expenses, net	52	(24)	(23)	(21)	(14)
Net income	374	307	251	27	140
Number of shares outstanding (millions)(6)	273,655	273,655	241,711	241,711	241,711
Net income per thousand shares (in R\$)(7)	1.37	1.12	1.04	0.12	0.58
U.S. GAAP					
Total revenues	1,862	1,739	1,672	1,442	1,371
Net income	232	149	136	210	773
Net income per thousand shares (in R\$)	0.85	0.58	0.56	0.87	3.19
Balance Sheet Data:					
Brazilian GAAP	(20	1 114	422	225	257
Current assets	630	1,114	422	335	257
Recoverable rate deficit (CRC)(8)	516	514	545	573	619
Long-term assets	814	704 5 225	672 5 192	671 5.022	670 5.040
Property, plant and equipment, net (9)	4,373 1,716	5,325 1,097	5,183 892	5,033 709	5,040 444
Total assets	7,798	8,335	7,243	6,815	6,490
Current loans and financing	161	360	241	158	48
Current liabilities	562	687	666	453	277
Long-term loans and financing	917	744	478	433 441	369
Long-term liabilities	2,343	2,250	1,887	1,713	1,572
Shareholders' equity	4,892	5,397	4,690	4,649	4,621
Similarions equity	7,072	5,571	1,070	1,0-17	1,021
U.S. GAAP					
Total assets	8,894	8,866	7,934	7,637	7,370
Long-term liabilities	2,631	2,526	2,168	2,200	2,172
Shareholders' equity	5,726	5,733	5,227	5,011	4,950
• •		*	*		-

As of and for the year ended December 31,

	As of and for the year ended December 31,				
	1998	1997	1996	1995	1994
	(millions of reais except per share data) (1)				
Other Financial Data:					
Noncash pension				109	13
Dividends (11)	136	150	126	29	12
Capital expenditures in property, plant and equipment (12)	763	610	547	488	275

- (1) Presented in constant *reais* of December 31, 1997 purchasing power for any period prior to January 1, 1998. See Note 2 to the Financial Statements.
- (2) Operating Revenues is Electricity Sales to Final Customers, Electricity Sales to Distributors, sales to the Interconnected Power System—South/Southeast and Eletrosul and Other Revenues.
- (3) The Company's Financial Statements as of and for the year ended December 31, 1995 reflect the Company's recognition in 1995 of primarily noncash expenses associated with the underfunding of Fundação COPEL in the amount of R\$121.6 million (R\$109.0 million of which was the pension plan deficit applicable to 1995 and the remainder of which was the reversal of the deficit with respect to 1994 recognized in 1994), net of a related deferred tax credit of R\$36.4 million. The financial statements as of and for December 31, 1995 filed with the CVM and published in Brazil did not reflect such recognition.
- (4) Interest Income is Income on Temporary Cash Investments, Charges on Overdue Receivables, Charges on Long-Term Receivables and CRC account receivables.
- (5) Net Exchange Gains/(Losses) include valuation (devaluation) of foreign currencies in relation to the real.
- (6) The number of outstanding shares is, under Brazilian GAAP, equal to the number of shares outstanding at the end of the period indicated. Under U.S. GAAP, such number is determined based on a weighted average for the period indicated.
- (7) Income per share data is presented per thousand shares, in accordance with the practice in Brazil of trading and quoting shares in thousand share lots.
- (8) CRC account receivables include both current and long-term CRC account receivables.
- (9) Property, Plant and Equipment, Net is net of Accumulated Depreciation and does not include Construction Work in Progress.
- (10) Prior to 1996, a portion of the interest associated with Construction Work in Progress was expensed as incurred, as Interest on Loans and Financing, and was offset by Remuneration on Work in Progress.
- (11) Amounts shown for 1996, 1997 and 1998 represent Interest on Capital, which the Company elected to pay in lieu of dividends. Such amount exceeded the Mandatory Dividend required under the Brazilian Corporation Law by approximately R\$18.7 million in 1997 and 36.8 million in 1998. See "History of Dividend Payments" and Note 23 to the Financial Statements.
- (12) Capital Expenditures in Property, Plant and Equipment are net of maintenance charges which are expensed as incurred.

#### **Exchange Rates**

The Company will pay any cash dividends and make any other cash distributions with respect to Class B Shares in Brazilian currency. Accordingly, exchange rate fluctuations will affect the U.S. dollar amounts received by the holders of ADSs on conversion by the Depositary of dividends and distributions in Brazilian currency on the Class B Shares represented by the ADSs. Fluctuations in the exchange rate between the Brazilian currency and the U.S. dollar will also affect the U.S. dollar equivalent of the price of the Class B Shares on the Brazilian stock exchanges. Exchange rate fluctuations may also affect the Company's results of operations. The Company does not hedge its obligations under its foreign currency-denominated indebtedness.

There are two legal exchange markets in Brazil—the commercial rate exchange market (the "Commercial Market") and the floating rate exchange market (the "Floating Market"). The Commercial Market is reserved primarily for foreign trade transactions and transactions that generally require prior approval from Brazilian monetary authorities, such as the purchase and sale of registered investments by foreign persons and related remittances of funds abroad. Purchases and sales of foreign exchange in the Commercial Market may be carried out only through a financial institution in Brazil authorized to buy and sell currency in that market. As used herein, the "Floating Market Rate" is the prevailing selling rate for Brazilian currency into U.S. dollars which applies to transactions to which the Commercial Market Rate does not apply, as reported by the Central Bank. Prior to the implementation of the *Real* Plan, the Commercial Market Rate and the Floating Market Rate differed significantly at times. Since the introduction of the *real*, the two rates have not differed significantly, although there can be no assurance that there

will not be significant differences between the two rates in the future. Both the Commercial Market Rate and the Floating Market Rate are freely negotiated but are strongly influenced by the Central Bank.

Between March 1995 and January 1999, the Central Bank maintained a band within which the exchange rate between the *real* and the U.S. dollar fluctuated, and the Central Bank intervened in the foreign exchange market from time to time. From January 20, 1998 through December 31, 1998, the band was between R\$1.12 and R\$1.22 per US\$1.00. In early January 1999, the Central Bank attempted a controlled devaluation of the *real* by widening the band within which the *real* was permitted to trade, but subsequent Central Bank intervention failed to keep the rate within the new band. On January 15, the Central Bank announced that the *real* would be permitted to float, with Central Bank intervention to take place only in times of extreme volatility. See "Description of Business—Brazilian Economic Environment.

The following table sets forth the period-end, average, high and low Commercial Market Rate (through February 21, 1995) and Noon Buying Rate (from February 22, 1995), expressed in *reais* per U.S. dollar for the periods indicated.

		Average for		
Period	Period-end	Period (1)	High	Low
1994	0.8460	0.6450	1.0000	0.1186
1995	0.9722	0.9228	0.9722	0.8450
1996	1.0393	1.0080	1.0413	0.9733
1997	1.1165	1.0805	1.1166	1.0394
1998	1.2085	1.1640	1.2090	1.1160
1999 (through May 31, 1999)	1.7340	1.8553	2.2000	1.2074

<sup>(1)</sup> Average of the rates on the last day of each month in the period.

Source: Central Bank through February 21, 1995; Federal Reserve Bank of New York thereafter.

At June 18, 1999, the Commercial Market Rate was R\$1.7485 to US\$1.00.

#### **History of Dividend Payments**

#### General

In accordance with the Charter and the Brazilian Corporation Law, the Company regularly pays annual dividends for each fiscal year within 60 days after the declaration at the annual shareholders' meeting. To the extent amounts are available for distribution, the Company is required to distribute as dividends an aggregate amount (the "Mandatory Dividend") equal to at least 25% of Adjusted Net Income (as hereinafter defined). Dividends are allocated pursuant to the formula described in "—Dividend Priority of Class A Shares and Class B Shares" below. Under the Brazilian Corporation Law, the Company is not permitted to suspend the minimum dividend payable with respect to the Class A Shares for any year. Brazilian law permits, however, a company to suspend the payment of all other dividends if the Board of Directors and the Audit Committee report to the shareholders' meeting that the distribution would be incompatible with the financial circumstances of the company. The Company is not subject to any contractual limitations on its ability to pay dividends.

The following table summarizes the recent history of dividend payments on the Company's Common, Class A and Class B Shares. *Real* amounts are expressed in constant *reais* of December 31, 1997 purchasing power for any period prior to January 1, 1998. U.S. dollar amounts are based on the Commercial Market Rate or, as the case may be, the Noon Buying Rate on the respective payment dates.

Dividend Payment History (per 1,000 shares)(1)	Dividend	<b>Pavment</b>	History	(per 1	.000 shares)(	1)
--	----------	----------------	---------	--------	---------------	----

Year declared	Common	Shares	Class A	Shares	Class B Sl	nares(2)
	(Reais)	(US\$)	(Reais)	(US\$)	(Reais)	(US\$)
1994	0.0478	0.0380	0.0478	0.0380	n.a.	n.a.
1995	0.0933	0.0796	0.1554	0.1326	n.a.	n.a.
1996 (3)	0.5196	0.4489	0.5196	0.4489	0.5196	0.4489
1997 (3)	0.5235	0.4639	0.5759	0.5103	0.5759	0.5103
1998 (3)(4)	0.4755	0.2825	0.5226	0.3104	0.5226	0.3104

- (1) *Real* amounts are expressed in constant *reais* of December 31, 1997 purchasing power for any period prior to January 1, 1998. U.S. dollar amounts are calculated by dividing the amount of dividends paid per share, expressed in historical *reais*, by the Commercial Market Rate or, as the case may be, the Noon Buying Rate on the respective dates when the indicated dividends were first made available by the Company for payment.
- (2) No Class B Shares were outstanding prior to February 15, 1996.
- (3) Represents interest on capital. See Note 23(d) to the Financial Statements.
- (4) The payment of interest on capital in the aggregate amount of R\$136.2 million with respect to fiscal year 1998 was made on May 20, 1999. The *real* amounts shown represent the sum of the historical per-share amounts paid on each of these dates.

#### Calculation of Adjusted Net Income

Dividends with respect to a fiscal year are payable from (i) retained earnings from prior periods and (ii) after-tax income for such period less required allocation to legal and other reserves (as described below) ("Adjusted Net Income").

A Brazilian company is required to maintain a legal reserve, to which it must allocate a minimum 5% of net income for each fiscal year until such reserve reaches an amount equal to 20% of the company's capital stock (calculated in accordance with the Brazilian Corporation Law). At December 31, 1998, COPEL's legal reserve was R\$109 million, or approximately 8.11% of such capital stock at that date.

In addition to deducting amounts for the legal reserve, under the Brazilian Corporation Law net income may also be adjusted by deducting amounts allocated to two other reserves. One is a contingency reserve against future losses. The other is a reserve for specified categories of earnings that are required to be recognized currently, but that will be realized in subsequent periods. These include earnings attributable to indexation for inflation of assets and liabilities. Such reserves may only be established if they are proposed by the Board of Directors or Board of Executive Officers at a shareholders' meeting and a resolution creating such reserves is adopted at that shareholders' meeting.

The amounts available for distribution are determined on the basis of the Statutory Financial Statements prepared using the method required by the Brazilian Corporation Law, which differ from financial statements, such as the Financial Statements included herein. See "—Background—Difference from Financial Statements Published in Brazil."

## Dividend Priority of Class A Shares and Class B Shares

According to the Company's Charter, Class A Shares and Class B Shares are entitled to receive annual, noncumulative minimum dividends, provided that Class A Shares have a dividend priority over the Class B Shares, and Class B Shares have a dividend priority over the Common Shares. To the extent funds are available therefore, dividends are to be paid in the following order: (i) the Class A Shareholders have the right to receive a minimum dividend equal to 10% of the total share capital represented by the Class A Shares outstanding as at the end of the fiscal year in respect of which the dividends have been declared; (ii) to the extent there are additional amounts to be distributed after all amounts described in clause (i) have been paid, the Class B Shareholders have the right to receive a minimum dividend per share equal to (A) the Mandatory Dividend divided by (B) the total number of shares of capital stock out-

standing as at the end of the fiscal year in respect of which the dividends have been declared; and (iii) to the extent that there are additional amounts to be distributed after all amounts described in clauses (i) and (ii) have been paid, the Common Shareholders have the right to receive an amount per share equal to (A) the Mandatory Dividend divided by (B) the total number of shares of capital stock of the Company outstanding as at the end of the fiscal year in respect of which dividends have been declared. To the extent that there are additional amounts to be distributed after all amounts described in the preceding sentence have been paid, under the Brazilian Corporation Law dividends per share are to be paid equally to the Class B Shareholders and Common Shares up to the amount per share paid to the Class A Shareholders (as described in clause (i) of the preceding sentence). Any remaining amount to be distributed will be divided equally among all shareholders of capital stock of the Company.

#### Payment of Dividends

COPEL is required to hold an annual shareholders' meeting by April 30 of each year at which, among other things, an annual dividend may be declared by decision of the shareholders on the recommendation of the Board of Executive Officers, as approved by the Board of Directors. The payment of annual dividends is based on the financial statements prepared for the fiscal year ending December 31. Under Brazilian law, dividends are required to be paid within 60 days following the date the dividend is declared to shareholders of record on such declaration date, unless a shareholders' resolution sets forth another date of payment, which must occur prior to the end of the fiscal year in which such dividend was declared. COPEL is not required to adjust the amount of paid-in capital for inflation for the period from the end of the last fiscal year to the date of declaration or to adjust the amount of the dividend for inflation for the period from the end of the relevant fiscal year to the payment date. Consequently, the amount, in real terms, of dividends paid to holders of Class B Shares may be substantially reduced due to inflation. Annual dividends are paid to shareholders on a pro rata basis according to the date when the subscription price is paid to COPEL.

Pursuant to Brazilian law, COPEL may pay interest on capital in lieu of dividends as an alternative form of making distributions to shareholders. A payment of interest on capital may be treated as a deductible expense for tax purposes, provided that it does not exceed the lesser of (i) the product of (A) a certain long-term interest rate determined by the Central Bank, multiplied by (B) total shareholders' equity (determined in accordance with the Brazilian Corporation Law), less certain deductions prescribed by the Brazilian Corporation Law and (ii) the greater of (A) 50% of current net income (before taking into account such distributions or tax deductions) and (B) 50% of retained earnings.

Shareholders who are not residents of Brazil must register with the Central Bank in order for dividends, sales proceeds or other amounts with respect to their shares to be eligible to be remitted in foreign currency outside of Brazil. The Class B Shares underlying the ADSs are held in Brazil by the Custodian, as agent for the Depositary, which is the registered owner of the Company's shares.

Payments of cash dividends and distributions, if any, will be made in Brazilian currency to the Custodian on behalf of the Depositary, which will then convert such proceeds into U.S. dollars and will cause such U.S. dollars to be delivered to the Depositary for distribution to holders of ADRs. In the event that the Custodian is unable to convert immediately the Brazilian currency received as dividends into U.S. dollars, the amount of U.S. dollars payable to holders of ADRs may be adversely affected by devaluations of the Brazilian currency that occur before such dividends are converted and remitted. Dividends in respect of the Class B Shares paid to holders who are not Brazilian residents, including holders of ADSs, generally are not subject to Brazilian withholding tax, although payments of interest on capital may, in certain circumstances, be subject to withholding tax. See "Taxation—Brazilian Tax Considerations—Taxation of Dividends" and "—Distributions of Interest on Capital."

# Item 9. Management's Discussion and Analysis of Financial Condition and Results of Operations Effects of Changes in Presentation of Financial Statements in 1998

There are three significant differences in presentation between the Financial Statements of the Company for 1998 and for earlier years. Each of these differences should be taken into account in comparing financial condition and results of operations for 1998 and for prior years.

Cessation of integral restatement method. Through December 31, 1997, the Financial Statements have been restated to recognize certain effects of inflation and restated in constant reais of December 31, 1997 purchasing power. The Company used the IGP-M inflation index to prepare its financial statements for 1996 and the IGP-DI inflation index to prepare its financial statements for 1997. The restatement was effected in accordance with Brazilian GAAP using the integral restatement method prescribed by the CVM.

For 1998, the Company has not restated the financial statements for recognizing the impact of inflation, because the low rate of Brazilian inflation in 1998 (1.8% as measured by the IGP-M) would have made any restatement for inflation insignificant. Accordingly the Financial Statements as of and for the year ended December 31, 1998 are presented in nominal *reais* and do not recognize effects of inflation. Financial statements for prior dates and periods, which are restated in constant *reais* of December 31, 1997, have not been further restated. See "Selected Financial Data" and Note 2 to the Financial Statements. The IGP-M inflation rate for 1998 was 1.8%. See "Description of Business—Inflation and Devaluation."

- New chart of accounts of the electric sector. In January 1998, Copel started recording its transactions in accordance with the new chart of accounts for the electric energy sector. Additionally, as now required by ANEEL, those financial statements include certain additional information, explanatory notes and supplementary attachments.
- The reversion of Special Monetary Restatement. On April 30, 1998, the Board of Directors, the Audit Committee and the shareholders approved the reversion of Special Monetary Restatement effects, retroactively to January 1, 1998, as follows:

<u>Assets</u>	Thousands of <i>reais</i>
Current Assets	1,903
Investments	3,125
Property, plant and equipment	1,892,651
(-) Accumulated depreciation	(1,001,152)
Construction work in progress	8,915
	905,442
Liabilities and shareholders' e quity	_
Deferred income taxes	237,353
Special liabilities	186,814
Shareholders' equity	763,056
	1,187,223
Retained Earnings	281,781

#### Year 2000

Many computer systems and software applications, including certain of those owned and operated by the Company, are affected by a programming limitation that may result in their failure to operate or to

provide correct information when using dates after December 31, 1999 (the "Year 2000 problem"). Failure to correct all affected systems and applications prior to January 1, 2000 could have an adverse effect on the Company, due to the dependence of the Company and certain suppliers and customers on such systems and applications.

In 1996, COPEL developed a plan to convert its current computer systems and software applic ations to address the Year 2000 problem. The Company appointed a committee to direct the project and divided its systems and programs into the following categories: corporate systems, computer infrastructure and telecommunications, departmental systems and automation and control processing systems. The Company also participates with other electric power companies in Brazil in a group coordinated by the NSO to address the Year 2000 problem.

The Company initially budgeted approximately R\$4.5 million to achieve year 2000 compliance. From this total, R\$700,000 remains to be spent in 1999. The Company's management expects that the conversion of its systems and applications will be substantially completed by June 1999.

The Company's management believes that there will be no interruption in the Company's business because of the Year 2000 problem. However, if the Company were to experience Year 2000 problems, the worse case scenario would be an interruption in the supply of electric energy and the consequent suspension of sales to the Company's clients who might then suffer considerable damages and file claims for indemnification against the Company.

There can be no assurance that the Company has identified or will identify all of the systems and applications that may be affected by the Year 2000 issue. Moreover, the Company operates as part of an interconnected system and therefore any failure on the part of other operators within the interconnected system to address any Year 2000 issues could result in service interruptions that could have an adverse impact on the Company.

#### **Rates**

The Company's results of operations have in the past been significantly affected by fluctuations in the allowable levels of rates charged by the Company for generation and distribution of electricity. The rate-setting process in Brazil has historically been affected by government attempts to control inflation. Despite the restructuring of the electric power sector in Brazil, government regulatory authorities continue to closely regulate and restrict the rates charged by the Company for generation and distribution of electricity. See "Description of Business—Legal and Regulatory Matters—Rates."

Effective June 1999, COPEL was granted an average increase of 12.65% in the rate charged for sales to final customers. During 1998, the Company was not granted any rate increases. In April 1997, COPEL was granted an average increase of 13.55% in the rate charged for sales to distributors and 9.7% in the rate charged for sales to final customers.

#### Analysis of Electricity Sales and Cost of Electricity Purchased

The Company bills for the electricity it sells and pays for the electricity it purchases on the basis of an "energy charge" and, in the case of its Group A Customers (industrial customers who receive energy at higher voltages), a "capacity charge." The capacity charge, expressed in *reais* per KW, is based on the higher of (i) contracted firm capacity and (ii) power capacity actually used. The energy charge, expressed in *reais* per MWh, is based on the amount of electricity actually consumed.

The following table sets forth the volume and average rate components of electricity sales and purchases for the years 1994 to 1998.

	Year ended December 31,				
	1998	1997	1996	1995	1994
		•	(nominal reais) (	1)	
Electricity Sales: (2)					
Sales to final customers:					
Industrial rate	81.81	83.89	85.79	89.78	103.41
Residential rate	170.61	160.31	148.32	123.85	129.71
Commercial rate	146.34	143.96	147.52	153.70	169.71
Rural rate	87.23	86.53	84.56	95.79	104.06
Public service rate	86.97	85.86	86.94	97.45	106.09
Total sales to final customers:					
Volume (GWh)	15,006	14,230	13,503	12,661	11,637
Industrial customers	5,932	5,641	5,365	5,214	4,915
Residential customers	4,185	3,949	3,780	3,390	2,988
Commercial customers	2,268	2,111	1,949	1,783	1,605
Rural and others (3)	2,141	2,073	1,968	1,853	1,732
Public services	480	456	441	421	397
Average rate	117.26	114.46	112.07	109.04	119.68
Total revenues (thousands of R\$)	1,759,652	1,628,779	1,513,248	1,380,495	1,392,691
Sales to distributors and others:					
Volume (GWh)	6,586	5,245	8,996	4,086	3,955
Average rate	8.78	15.33	11.11	19.56	18.67
Total revenues (thousands of R\$)	57,849	80,409	99,943	79,917	73,828
<b>Electricity Purchases:</b>					
Purchases from Itaipu:					
Volume (GWh)	5,302	5,410	4,976	4,688	4,268
Percentage of total Itaipu produc-					
tion purchased	6%	6.4%	6.1%	6.1%	6.2%
Average cost (R\$/MWh)(4)	37.06	33.78	35.22	40.17	53.44
Total cost (thousands of R\$)(5)	196,512	182,746	175,273	188,358	228,059
. , , ,	•	•	•	•	•

<sup>(1)</sup> Presented in constant reais of December 31, 1997 purchasing power for any period prior to January 1, 1998.

## **Impact of CRC Account**

Until 1993, utilities in Brazil were guaranteed an annual rate of return on service-related assets included in the base rate. Beginning in 1971, the Federal Government was required to set electricity tariffs to provide a minimum *reais* return of 10% per annum and a maximum of 12% per annum on certain qualifying investments for utilities. In cases where the tariffs set by the Federal Government resulted in revenues giving a minimum *reais* return below the 10% to 12% range, each electric power company was allowed to credit the difference to its CRC Account. Accumulated shortfalls in the rate of return credited

<sup>(2)</sup> Rates for electricity sales and purchases have been computed by dividing (i) the corresponding sales or purchases without deduction of ICMS Tax by (ii) MWh of electricity sold.

<sup>(3)</sup> Includes rural customers, street lighting, government agencies and COPEL's own consumption.

<sup>(4)</sup> The Co mpany's purchases of electricity generated by Itaipu are paid for on the basis of a capacity charge expressed in U.S. dollars per KW plus a "wheeling" (or transportation) charge expressed in *reais* per kWh.

<sup>(5)</sup> See "Description of Business—Operations of COPEL—Purchases" for an explanation of COPEL's expenses relating to electricity purchases.

to CRC Accounts were recognized in the late 1980s as liabilities of the Federal Government to electric utilities. See "Description of Bus iness—Legal and Regulatory Matters—Rates."

In 1993, the Federal Government eliminated the system of guaranteed rates of return for utilities. As a result, utilities were no longer permitted to add credits to the CRC Account. Amounts that had been accumulated in each utility's CRC Account up to 1993 were recognized by the Federal Government as credits. Utilities were then permitted to offset their CRC Account balances against amounts owed to the Federal Government and to federal financial institutions. By offsetting its CRC Account balances against amounts owed by COPEL to the Federal Government and federal financial institutions, COPEL reduced its current liabilities and increased its shareholders' equity by R\$811.8 million in 1994 and R\$487.7 million in 1993. In addition, as described below, R\$602.9 million of COPEL's CRC Account balance was assumed by the State Government. Such amount is treated as a long-term receivable and is recorded as capital reserves under shareholders' equity in its nominal amount, as opposed to its present value.

After offsetting all amounts owed to the Federal Government and to federal financial institutions to the extent permitted by law, in August 1994 COPEL assigned the remainder of its CRC Account balance, equal to R\$602.9 million, to the State Government pursuant to an assignment agreement (the "CRC Account Agreement"). The CRC Account Agreement provided that the State Government was required to pay the Company the remainder of the CRC Account in 240 monthly installments commencing on April 15, 1995. Interest on the CRC Account accrues at the rate of 6.65% per annum in real terms, and the Company has been accruing interest income on the CRC Account since August 1994. Beginning in December 1996, the State Government suspended payments under the CRC Account Agreement. Pursuant to an oral understanding between the Company and the State Government, the Company offset unpaid amounts equal to approximately R\$36 million in respect of the period from December 1996 through June 1997 against dividends paid to the State Government on June 23, 1997. In October 1997, the Company and the State Government agreed to extend the term of the CRC Account Agreement to October 30, 2025. Pursuant to the terms of the CRC Account Agreement, if the State Government fails to make payments on a timely basis, COPEL may, after notifying the State Government, withhold dividends payable to the State Government, and COPEL will have a lien on certain amounts deposited by the State Government with Banco do Estado do Paraná as a further guarantee of payment. See Note 11 to the Financial Statements.

## **Special Liabilities**

Special liabilities were R\$586.7 million in 1998 and R\$747.3 million in 1997. Special liabilities represent assets contributed to COPEL by certain residential, rural and industrial customers to enable COPEL to provide service to such customers in cases where, in the absence of such contributions, COPEL would not realize a profit on the investment made to provide such service. Eventual liquidation of these special liabilities is dependent upon future determinations by ANEEL.

#### **Deferred Tax Assets and Liabilities**

The Company recorded deferred tax assets in the amount of R\$171.9 million in 1998 and R\$47.2 million in 1997. Such assets arise when COPEL records provisions that are not deductible for tax purposes in the year in which they are accrued. The provisions are reflected in the balance sheet, but the corresponding tax benefits are not recognized until the related provisions are recognized. Such timing differences give rise to the deferred tax asset. See Note 20 to the Financial Statements.

The increase in the Company's recorded deferred tax assets in 1998 was primarily on account of a provision for a pension plan deficit in the amount of R\$150.7 million. See Note 20 to the Financial Statements.

The Company recorded long-term deferred tax liabilities in the amount of R\$213.4 million in 1998 and R\$462.1 million in 1997. Under Brazilian GAAP, the Company was required to write up the value of its assets in accordance with the rate of inflation. However, taxes are not incurred on the amount

of such write-ups until such time as the asset is realized, whether via disposition or depreciation. See Note 20 to the Financial Statements.

#### Results of Operations for the Years Ended December 31, 1998 and 1997

#### Net Operating Revenues

The Company's net operating revenues (operating revenues net of ICMS Tax and other value-added taxes) increased 9.5% to R\$1,434.8 million in 1998 from R\$1,310.2 million in 1997, primarily due to an increase in electricity sales to final customers, partially offset by a decrease in electricity sales to distributors.

Electricity Sales to Final Customers. The Company's revenues from electricity sales to final customers increased by 8.0% to R\$1,759.7 million in 1998 from R\$1,628.8 million in 1997. This increase was primarily due to (i) a 3.45% increase in the number of final customers to 2.7 million at year-end 1998 from 2.6 million at year-end 1997, (ii) a 2.45% increase in average consumption per final customer, (iii) the first full year's effect of the 9.7% tariff increase granted by DNAEE in April 1997 for sales to final customers other than residential customers and (iv) a further decrease in the percentage of residential customers classified as Low Income Residential Customers entitled to discounted rates. See "Description of Business—Operations of COPEL—Transmission and Distribution—Tariffs."

Electricity Sales to Distributors. Revenues from electricity sales to distributors decreased by 28.1% to R\$57.8 million in 1998 from R\$80.4 million in 1997, despite a 25.6% increase in volume to 6,586 GWh in 1998 from 5,245 GWh in 1997. Revenues from sales to distributors other than sales through the ICPS decreased by 48.8% to R\$31.9 million in 1998 from R\$62.3 million in 1997, as a 59.6% decrease in volume to 1,036 GWh in 1998 from 2,560 GWh in 1997 was partially offset by higher average rate reflecting the first full year's effect of a 13.6% rate increase granted by DNAEE in April 1997 for sales to distributors. Revenues from sales through the ICPS increased by 43.6% to R\$26.0 million in 1998 from R\$18.1 million in 1997, on volume of 5,550 GWh in 1998 as compared with 2,684 GWh in 1997.

The shift from the higher-margin direct sales to distributors to the lower-margin sales through the ICPS is attributable to the fact that COPEL's projected firm capacity for 1998 did not increase from 1997 to 1998, whereas projected sales to final customers increased significantly. For this reason, less power was available for the Company to commit to the more profitable contract sales to distributors in 1998, as compared with 1997. Favorable hydrological conditions resulted in electricity generation in 1998 far in excess of projections. The excess energy was sold through the ICPS at the "optimization rate." See "Description of Business—Operations of COPEL—General."

Use of Transmission Plant. In September 1998, for the first time, COPEL was authorized to charge third parties for the use of its transmission plant, producing R\$10 million of revenues. See "Description of Business—Operations of COPEL—Transmission." As discussed below, COPEL was also required to pay third parties for the use of their transmission facilities for the first time in 1998, resulting in R\$26.7 million of expense. The Company's management expects that during 1999, the Company will pay approximately R\$90 million for use of transmission facilities and receive approximately R\$30 million from third parties for use of the Company's transmission facilities. See "Description of Business—Legal and Regulatory Matters—Rates."

Other revenues. Other revenues increased by 14.9% to R\$34.6 million in 1998 from R\$30.1 million in 1997, due to the increase in services rendered by the Company to other parties (primarily consulting services), revenue from equipment rentals and an increase in the subsidies received by COPEL for the operation of thermoelectric power plants. Services rendered by the Company to other parties increased largely on account of an increase in technical consulting services provided by the Company to the other members of the consortium for construction of the Dona Francisca and Machadinho hydroelectric power plants. The increase in revenue from equipment rentals was due to the rental of equipment destined for

sale or future use. The increase in the subsidies received by the Company was due to an increase in capacity at the Figueira thermoelectric power plant beginning in July 1998.

#### **Total Operating Expenses**

Total operating expenses increased by 7.6% to R\$1,092.3 million in 1998 from R\$1,015.1 million in 1997, primarily due to the current-year portion of the costs of changing the Company's pension plan from a defined benefits plan to a defined contribution plan, a new requirement that COPEL pay third parties for the use of their transmission facilities, increases in regulatory charges and increases in electricity purchased for resale, partially offset by declines in depreciation and amortization and in third-party services.

Electricity Purchased for Resale. Electricity purchased for resale increased by 6.9% from R\$184.4 million in 1997 to R\$197.1 million in 1998. The increase was primarily due to an increase in the cost of the electricity that COPEL was required to purchase from Itaipu, which in turn reflected the devaluation of the real against the U.S. dollar since the tariffs COPEL pays for Itaipu electricity are fixed in dollars. The increase in 1998 was also due to the full year effect of a 7% increase in April 1997 in the tariff charged for energy from Itaipu and an additional 2.1% increase in January 1998. The increase in 1998 was partially offset by a 2% decrease in the amount of energy the Company was required to purchase from Itaipu because Itaipu produced less energy in 1998 than it produced in 1997. See "Description of Business—Operations of COPEL—Generation and Purchases of Energy."

*Use of Transmission Plant.* In 1998, for the first time, COPEL was required to pay third parties for the use of their transmission plant, resulting in R\$26.7 million of expense. See "Description of Business—Legal and Regulatory Matters—Rates."

Depreciation and Amortization. Depreciation expense decreased by 7.5% to R\$244.8 million in 1998 from R\$264.7 million in 1997. This decrease in depreciation expense was primarily due to a reduction in the recorded value of certain assets due to the write-off of the effects of an earlier monetary restatement (see Note 4 to the Financial Statements), partially offset by an increase in the depreciation rates established by ANEEL. See Note 14 to the Financial Statements.

Personnel. Personnel expenses increased by 1.9% to R\$314.0 million in 1998 from R\$308.2 million in 1997, primarily due to (i) an increase of R\$8.9 million in the Company's provision for contingent liabilities in connection with labor disputes, (ii) payment of R\$29.5 million to settle a dispute relating to wage increases, (iii) an increase of R\$7.2 million in 1998 from 1997 in severance payments as a result of the continued operation of the Company's workforce reduction program and (iv) a reclassification of certain medical benefits from third party services to personnel, offset in part by (i) a reduction in the number of employees by 7.1% during 1998 and (ii) increased construction activities resulting in an increase in the percentage of payroll expenses capitalized as "construction work in progress." Disregarding the non-recurring extraordinary expenses, personnel expenses would have decreased in 1998 from 1997 because of an average decrease in nominal wages of 13.6% during 1998.

Regulatory Charges. Regulatory charges increased 21.8% to R\$107.4 million in 1998 from R\$88.2 million in 1997. This increase resulted primarily from a 23.9% increase in RGR payments to R\$41.8 million in 1998 from R\$33.7 million in 1997, the imposition of R\$5.3 million of new fees to cover ANEEL's inspection expenses and an increase of 24.3% in compensation for land usage, to R\$20.4 million in 1998 from R\$16.4 million in 1997. See "Description of Business—Legal and Regulatory Matters—Regulatory Charges" and Note 17 to the Financial Statements.

Third-Party Services. Third-party services, consisting primarily of miscellaneous expenses such as technical consulting fees, maintenance services and travel expenses, decreased by 14.3% from R\$95.8 million in 1997 to R\$82.2 million in 1998. This decrease resulted primarily from a reclassification of certain medical benefits from third party services to personnel, reduced expenses for publication of legal

notices (resulting in turn from a lower level of public biddings in connection with procurement activities) and a lower level of payments for outsourced activities.

Pension and Other Benefits. Pension and other benefits increased by 101.3% to R\$62.1 million in 1998 from R\$30.9 million in 1997 largely as a result of the change from a "defined benefit" pension plan to a "defined contribution" pension plan. The participant rights under the new plan generated an obligation amounting to R\$468.3 million. R\$20.5 million related to the current year and was charged to operating expenses. In addition, the Company recognized a provision of R\$10.9 million for the deficit of Fundação COPEL as of December 31, 1998, computed based on actuarial practices in Brazil. See Note 29 to the Financial Statements.

Other Expenses. Other expenses increased by 55.3% to R\$25.2 million in 1998 from R\$16.3 million in 1997 largely as a result of (i) a 25% increase in rental expenses, (ii) an increase in provisions for doubtful accounts due to an increase in overdue receivables and (iii) a decrease in the recovery of expenses due to a reduction in maintenance services related to public lighting systems rendered by the Company to customers, mainly to municipalities. These increases were partially offset by a decrease in the cost of operating services due to the reclassification of cost of maintenance services performed by the Company's employees from other expenses to personnel expenses. See note 25c to the Financial Statements.

#### **Operating Income**

As a result of the foregoing factors, operating income increased by 16.0% to R\$342.4 million in 1998 from R\$295.1 million in 1997.

#### Equity Pick-Up in Investees

In 1998, the Company made an investment in Sercomtel. Equity pick-up in investees reflects a loss in value in the Company's investment in Sercomtel. See Note 13 to the Financial Statements.

#### Total Other Income (Expense)

Total other income (expense) increased by 32.2% to R\$144.7 million in 1998 from R\$109.4 million in 1997, due to positive result in nonoperating income (expense), net, partially offset by a decrease in financial income (expense), net.

Financial Income (Expense), Net. Net financial income decreased by 30.4% to R\$93.1 million in 1998 from R\$133.6 million in 1997 primarily as a result of: (i) lower interest income reflecting lower cash balances (see "—Liquidity and Capital Resources") and (ii) net exchange loss attributable primarily to the effect of the devaluation of the real in the second half of 1998 on the Company's indebtedness, especially in relation to the Company's IDB loan and Japanese yen denominated indebtedness. See Note 16b to the Financial Statements. The decrease was largely offset by lower interest payments on loans and financings during 1998 and lower debt balances in 1998. Additionally, beginning January 1, 1998, the financial statements are no longer price-level adjusted, and therefore, the gains and losses on monetary assets and liabilities due to inflation are no longer allocated to line items on the income statement and the income statement balances for the year ended December 31, 1998 are nominal values in reais compared to price-level adjusted figures in prior periods.

Nonoperating Expenses, Net. The Company had net nonoperating income of R\$51.6 million in 1998, as compared with net nonoperating expense of R\$24.2 million in 1997. The increase in 1998 was largely due to the reversal of a provision for contingencies in respect of certain social contribution taxes. See Notes 19 and 27 to the Financial Statements.

#### Total Income Tax

The Company's provision for income tax and social contributions increased by 22.7% to R\$90.0 million in 1998 from R\$73.3 million in 1997. This increase was primarily due to an increase of 18.3% in

income before taxes partially offset by a decrease in employee participation expense and a decrease in the tax benefit relating to the payment of interest on capital in lieu of dividends. The increase was also partially offset by a tax benefit relating to a deduction in 1998 of remuneration of construction work in progress. See Note 20b to the Financial Statements.

#### Employee Participation

In 1996, the Company adopted an employee profit sharing plan in which employees are entitled to participate in net profits in years when the ratio of net profits to net worth is at least 3.5% and according to certain criteria negotiated between COPEL and its employees. In 1998, COPEL allocated R\$14.0 million for distribution among its employees in respect of 1998 profits as compared with R\$24.5 million in 1997. This decrease primarily reflects the decrease in the number of employees at the Company and management's concerns over Brazil's economic situation in January 1999 when management determined the amount to be allocated to the profit sharing plan.

#### Net Income

As a result of the foregoing factors, net income increased 22.1% to R\$374.5 million in 1998 from R\$306.7 million in 1997.

# Results of Operations for the Years Ended December 31, 1997 and 1996

#### Net Operating Revenues

The Company's net operating revenues (operating revenues net of ICMS Tax and other value-added taxes) increased 4.1% to R\$1,310.2 million in 1997 from R\$1,258.7 million in 1996, primarily due to higher average tariff rates, an increase in the number of final customers and an increase in average consumption per final customer, partially offset by the effects of inflation and by a decrease in revenues from sales to distributors, the Interconnected Power System—South and Eletrosul. The higher average tariff rates resulted from the increase in tariffs granted in April 1997 with respect to all classes of customers other than residential customers and from a reduction in the percentage of residential customers entitled to discounted rates.

Electricity Sales to Final Customers. The Company's revenues from electricity sales to final customers increased by 7.6% to R\$1,628.8 million in 1997 from R\$1,513.2 million in 1996. This increase was primarily due to (i) the 9.7% tariff increase granted by DNAEE in April 1997 with respect to such customers, (ii) a 3.3% increase in the number of final customers to 2.6 million at year-end 1997 from 2.5 million at year-end 1996 and (iii) a decrease in the percentage of residential customers classified as Low Income Residential Customers entitled to discounted rates, which resulted in an effective increase in rates paid by residential customers. See "Description of Business—Operations of COPEL—Tariffs."

Electricity Sales to Distributors, the Interconnected Power System—South/Southeast and Eletrosul. Revenues from sales to distributors, the Interconnected Power System—South/Southeast and Eletrosul decreased by 19.5% to R\$80.4 million in 1997 from R\$99.9 million in 1996, primarily as a result of a decrease in the volume of electricity sold by COPEL to such purchasers, partially offset by a 13.5% rate increase granted by DNAEE in April 1997 with respect to sales to distributors and an increase in rates charged to the Interconnected Power System—South/Southeast and Eletrosul. Due to unusually favorable hydrological conditions in the South region of Brazil during 1996, the amount of electricity generated by COPEL, together with the amount COPEL was required to purchase from Itaipu, exceeded demand for energy in COPEL's distribution area, and COPEL consequently sold excess energy to the Interconnected Power System—South/Southeast. In 1997, levels of rainfall in the south of Brazil returned to more normal levels, as a result of which COPEL did not sell as much excess energy.

#### **Total Operating Expenses**

Total operating expenses increased 3.8% to R\$1,015.1 million in 1997 from R\$978.0 million in 1996, primarily due to increases in electricity purchased for resale, depreciation and amortization, personnel expenses and third-party services, partially offset by a decline in other expenses.

*Electricity Purchased for Resale*. Electricity purchased for resale increased by 5.0% from R\$175.6 million in 1996 to R\$184.4 million in 1997. This increase was primarily due to an increase in the volume of energy that COPEL was required to purchase from Itaipu. See "Description of Business—Operations of COPEL—Generation and Purchases of Energy."

Depreciation and Amortization. Depreciation expense increased by 11.8% to R\$264.7 million in 1997 from R\$236.7 million in 1996. This increase in depreciation expense was primarily due to the increase in property, plant and equipment in service that resulted from (i) investments made during 1997 in transmission and distribution systems and (ii) the completion of construction on the Rio Jordão project in late 1996, which resulted in an increase in property plant and equipment in service and a corresponding decrease in construction work in progress that are reflected in the balance sheet as of December 31, 1996.

Personnel. Personnel expenses increased by 8.9% to R\$308.2 million in 1997 from R\$282.9 million in 1996 primarily due to (i) a decline in construction, resulting in a decrease in the percentage of payroll expenses capitalized as construction work in progress, (ii) a change in the Company's procedure in allocating personnel expenses to construction projects and (iii) an increase in costs associated with the reclassification of certain meal expenses for employees from other expenses in 1996 to personnel in 1997, partially offset by a decrease in the number of employees. Prior to 1997, COPEL allocated a portion of payroll expenses to construction work in progress on the basis of an estimate of the percentage of employees engaged in construction work. Starting in 1997, COPEL allocated such expenses on the basis of actual employee hours spent on construction. As a result of the use of this new procedure in 1997, the amount of payroll expense allocated to "construction work in progress" was lower in 1997 than it would have been under the procedure used in 1996 and prior years.

Third-Party Services. Third-party services, consisting primarily of miscellaneous expenses such as technical consulting fees, maintenance services and travel expenses, increased by 15.1% from R\$83.2 million in 1996 to R\$95.8 million in 1997. This increase primarily resulted from increases in maintenance services for distribution lines and other miscellaneous expenses. Maintenance costs increased in large part because certain municipalities transferred ownership of public lighting systems to COPEL. COPEL records maintenance costs associated with public lighting systems under third party services. These maintenance costs are, however, generally recovered from customers and recorded under other expenses. Maintenance costs recorded under third party services also increased. The Company chose to use third-party contractors for a greater proportion of maintenance work on COPEL's own transmission and distribution lines in 1997 than in 1996.

Other Expenses. Other expenses decreased by 73.9% to R\$16.3 million in 1997 from R\$62.3 million in 1996 largely as a result of (i) an increase in other income recorded as part of this line item that resulted from the recovery from customers of maintenance costs associated with public lighting systems, (ii) a decrease in cost of services resulting from the increased use of third-party contractors for maintenance work on COPEL's transmission and distribution networks in 1997 as compared to 1996, (iii) reclassification of certain meal expenses for employees from other expenses in 1996 to personnel in 1997 and (iv) a nonrecurring provision for doubtful accounts of R\$8.1 million in 1996. COPEL records the cost of maintenance performed by its own employees under other expenses.

#### **Operating Income**

As a result of the foregoing factors, operating income increased by 5.1% to R\$295.1 million in 1997 from R\$280.8 million in 1996.

#### Total Other Income

Total other income increased by 121.9% to R\$109.4 million in 1997 from R\$49.3 million in 1996, due to an increase in financial income (expense), net and a slight increase in nonoperating expenses, net.

Financial Income (Expense), Net. Net financial income increased by 83.7% to R\$133.6 million in 1997 from R\$72.7 million in 1996 primarily as a result of interest income from the short-term investment of cash proceeds from the Company's issuance in 1997 of eurobonds, commercial paper and class B shares and American Depository Shares representing the shares. See "—Liquidity and Capital Resources." This increase was partially offset by a decrease in income earned from fines charged to customers for late payments due to regulations issued by DNAEE in December 1996 that limited such fines to 2% of the amount of the unpaid bill.

Nonoperating Expenses, Net. Net nonoperating expenses increased by 3.4% to R\$24.2 million in 1997 from R\$23.4 million in 1996 due to an increase in losses on retirement of assets that was largely offset by the effect of a nonrecurring provision for obsolete inventories made by the Company in 1996.

#### Total Income Tax

The Company's provision for income tax and social contributions increased by 25% to R\$73.3 million in 1997 from R\$58.6 million in 1996. This increase was primarily due to an increase of 23% in income before taxes and to an increase in the statutory tax rate from 30.56% in 1996 to 33% in 1997, partially offset by a tax benefit relating to payment of interest on capital in lieu of dividends that was larger in 1997 than in 1996.

#### Employee Participation

In 1996, the Company adopted an employee profit sharing plan in which employees are entitled to participate in net profits in years when the ratio of net profits to net worth is at least 3.5% and according to certain criteria negotiated between COPEL and its employees. In 1997, COPEL allocated approximately R\$24.5 million for distribution among its employees in respect of 1997 profits as compared with R\$20.2 million in 1996. This increase resulted primarily from the increase in COPEL's income after taxes in 1997, as compared with 1996. Such amount is distributed among employees in proportion to their monthly wages.

#### Net Income

As a result of the foregoing factors, net income increased 22.1% to R\$306.7 million in 1997 from R\$251.2 million in 1996.

#### **Liquidity and Capital Resources**

COPEL's business is capital intensive. The principal capital requirements of the Company historically have been to finance the expansion and upgrading of its electricity distribution and transmission system and to finance the expansion of its generation business. Historically, the Company has financed its liquidity and capital requirements primarily with cash provided by its operations and, to a lesser extent, by external financing.

The Company's principal sources of funds in 1998 were funds generated by operating activities and cash on hand. In 1998, COPEL's funds generated from operations increased to R\$744.5 million from R\$613.4 million in 1997. See "—Results of Operations for the Years Ended December 31, 1998 and 1997." COPEL's funds generated from operations were R\$508.0 million in 1996.

Capital expenditures increased to R\$763.2 million in 1998 from R\$610.3 million in 1997 and R\$546.5 million in 1996. In 1998, the Company's expenditures on its distribution and transmission systems were R\$262.3 million and its expenditures on generating facilities were R\$465.3 million, including

approximately R\$435.6 million for the Salto Caxias hydroelectric facility. The following table sets forth the Company's capital expenditures for the periods indicated.

	Year ended December 31,		
	1998	1997	1996
	(m	illions of reais) (1	.)
Total Generation:			
Generation (excluding Salto Caxias)	29.7	44.3	61.3
Salto Caxias	435.6	310.6	269.8
Transmission	142.6	48.8	46.9
Distribution	119.7	170.2	97.1
Other	_35.6	36.4	71.4
Total	763.2	610.3	546.5

<sup>(1)</sup> In constant reais of December 31, 1997 purchasing power for any period prior to January 1, 1998.

Total debt outstanding at December 31, 1998 was R\$1,090.3 million as compared with R\$1,119.8 million at December 31, 1997 and R\$730.4 million at December 31, 1996. Of the R\$1,090.3 million of total debt outstanding at December 31, 1998, R\$173.1 million was short-term debt (including the current portion of long-term debt) and R\$917.1 million was long-term debt. At year-end 1998, the Company had succeeded in reducing its short-term debt by 53.9% from year-end 1997, while the Company's long-term debt was 23.2% greater at year-end 1998 as compared to year-end 1997. Approximately R\$340.4 million of the total debt outstanding at December 31, 1998 was denominated in, or indexed to, the U.S. dollar, and approximately R\$143.2 million was indexed to a basket of foreign currencies. The decrease in total debt outstanding from 1997 to 1998 resulted from the repayment in May 1998 of R\$150.0 million of non-convertible debentures and net payments equivalent to R\$129.3 million made in connection with the Company's Euro-Commercial Paper Program, offset by an increase in loans from Eletrobrás originating from resources for the expansion of generating capacity and transmission and distribution lines. See Note 16 to the Financial Statements.

The Company had working capital of R\$67.2 million at December 31, 1998, as compared with a working capital of R\$427.2 million at December 31, 1997. The decrease in working capital was due to a decrease in current assets reflecting (i) a 68.3% reduction in cash and cash equivalents from year-end 1997 to year-end 1998 because the Company used cash and cash equivalents to help fund its investment program without a similar increase in funds from third-parties, and (ii) a decrease in the prepayment of value-added tax partially offset by an increase in accounts receivable. Current liabilities decreased from 1997 to 1998 due to a decrease in loans and financing partially offset by an increase in dividend liabilities that resulted from the payment during 1997 of a portion of the dividend declared for 1997. In 1998, the Company elected to distribute interest on capital of R\$136.2 million, rather than pay dividends. Such amount was R\$36.8 million higher than the amount of the Company would have been required to pay as dividends. See Note 23d to the Financial Statements.

COPEL plans to make capital expenditures aggregating approximately R\$500 million in 1999 and R\$435 million in 2000, as part of its R\$2.1 billion capital expenditure program for the years 1998 through 2003. Of total budgeted capital expenditures, R\$830 million is budgeted for generation, R\$615 million is budgeted for transmission and R\$505 million is budgeted for distribution. The Company's capital expenditure program includes actual and planned expenditures for the completion of Salto Caxias of approximately R\$1,353 million.

Of the R\$500 million the Company is projected to spend in 1999, management estimates that approximately 56% will be financed by cash flow from operating activities and 44% from third party sources. Of the 44% the Company expects to finance from third party sources, management expects to finance approximately 16% with FINEL/Eletrobrás, 20% through the issuance of commercial paper and

8% through others. The ability of the Company to generate cash sufficient to meet its planned expenditures is dependent upon a variety of factors, including the ability of the Company to maintain adequate tariff levels, to obtain regulatory and environmental authorizations, to access domestic and international capital markets, to arrange for private sector partnerships on satisfactory terms and to a variety of operating and other contingencies. In addition, COPEL may seek to invest in controlling or noncontrolling interests in other existing electric utilities, in communications services or in other areas, each of which may require additional domestic and international financing.

#### U.S. GAAP Reconciliation

The Company prepares its financial statements in accordance with Brazilian GAAP, which differs in significant respects from U.S. GAAP. The differences are described in Note 34 to the Financial Statements. For 1998, U.S. GAAP net income is R\$232.3 million, compared to R\$374.5 million net income under Brazilian GAAP. Shareholders' equity at December 31, 1998 is R\$5,725.6 million under U.S. GAAP compared to R\$4,892.3 million under Brazilian GAAP.

The differences between Brazilian GAAP and U.S. GAAP that have the most significant effects on net income and shareholders' equity include: (i) differences in inflation accounting methodology and indices, (ii) certain differences that arise because of the Company's use of nonregulated accounting policies resulting in differences in the treatment of capitalized interest, differences in the accounting for consumers' contributions to the cost of expanding the power supply systems and differences in the accounting for rate shortfalls, (iii) differences in the accounting for pensions and other post-retirement benefits, (iv) differences in the timing for the accrual of dividends, (v) differences in the extent of prior period adjustments, and (vi) differences in the calculation of earnings (loss) per share. See Note 34 to the Financial Statements.

#### Item 9A. Quantitative and Qualitative Disclosures about Market Risk

COPEL is exposed to market risk from changes in both foreign currency exchange rates and interest rates. Foreign exchange rate risk exists to the extent the Company's costs are denominated in currencies other than those in which it earns revenues. Similarly, the Company is subject to market risk deriving from changes in interest rates which may affect the cost of its financing. COPEL does not use financial instruments, such as foreign exchange forward contracts, foreign currency options, interest rate swaps and forward rate agreements, to manage these market risks since, in the view of management, these risks are not material at present, and the Company does not hold or issue derivative or other financial instruments for trading purposes.

#### **Exchange Rate Risk**

At December 31, 1998, the Company had outstanding approximately R\$340.4 million of indebt-edness denominated in U.S. dollars and approximately R\$143.2 million of indebtedness indexed to a basket of foreign currencies that comprised Deutsche marks, Japanese yen, Dutch guilders, Swiss francs and U.S. dollars. In addition, the Company's payments for purchases of energy from Itaipu are denominated in U.S. dollars. The Company does not have substantial revenues denominated in any of the above foreign currencies and, due to applicable regulations that require the Company to keep excess cash on deposit in *real*-denominated deposits with Brazilian banks, the Company does not have monetary assets denominated in such currencies. The potential loss to COPEL that would result from a hypothetical 40% change in foreign currency exchange rates would be approximately R\$250 million, primarily due to the increase in the Company's *real*-denominated financial statements in the principal amount of the foreign currency indebtedness described above (which increase would be reflected as an expense in the Company's income statement). A hypothetical and instantaneous change of 40% in foreign currency exchange rates would result in an additional annual cash outflow of approximately R\$130 million, reflecting the increased cost in *reais* of servicing foreign-currency indebtedness and purchasing energy from Itaipu. The above sensitivity analyses assume a simultaneous unfavorable 40% fluctuation in each of the exchange rates affecting

the foreign currencies in which the foreign-currency indebtedness described above, the related interest expense and the expenses relating to purchase of energy described above are denominated.

#### **Interest Rate Risk**

At December 31, 1998, the Company had outstanding approximately R\$1.1 billion in loans and financing, of which approximately R\$410 million bore interest at fixed interest rates and approximately R\$668 million bore interest at floating rates of interest (primarily the *Taxa de Juros de Longo Prazo*, a long-term interest rate reported by the Central Bank). Pursuant to applicable regulations, COPEL invests excess cash primarily in short-term instruments. A hypothetical, instantaneous and unfavorable change of 100 basis points in interest rates applicable to floating rate financial assets and liabilities held at December 31, 1998, would result in an additional cash outflow of approximately R\$6.7 million. The above sensitivity analyses are based on the assumption of an unfavorable 100 basis point movement of the interest rates applicable to each homogeneous category of financial assets and liabilities. A homogeneous category is defined according to the currency in which financial assets and liabilities are denominated and assumes the same interest rate movement within each homogeneous category (e.g. U.S. dollars; currencies in the currency basket). As a result, the Company's interest rate risk sensitivity model may overstate the impact of interest rate fluctuations for such financial instruments as consistently unfavorable movements of all interest rates are unlikely.

#### Item 10. Directors and Officers of Registrant

COPEL is managed by the Board of Directors, which consists of seven to nine members, and the Board of Executive Officers, which consists of seven members (each, an "Executive Officer"). The State Government has the ability to control the election of the Board of Directors and, therefore, the direction and future operations of the Company.

#### **Board of Directors**

The Company's Board of Directors ordinarily meets once every three months. Its responsibilities include the establishment of corporate strategy, the general orientation of the Company's business and the election and supervision of the Company's Executive Officers.

The members of the Board of Directors are elected to serve for two-year terms and may be reelected. Of the nine members of the Board of Directors, eight are elected by the holders of the Common Shares (as a result of which, at present, seven are chosen by the State Government and one is chosen by Eletrobrás). In addition, pursuant to state law, one member is elected by the Company's employees. The terms of the current members of the Board of Directors expire in April 2001. The current members are as follows:

Name	Position	Since
Ney Aminthas de Barros Braga	Chairman	1991
Ingo Henrique Hübert	Director	1995
Alexandre Fontana Beltrão	Director	1995
Benedito Aparecido Carraro	Director	1995
Fabiano Braga Côrtes	Director	1995
Eduardo Guy de Manuel	Director	1995
Lubomir Antônio Ficinski Dunin	Director	1996
Nicolau Imthon Klüppel	Director	1998
Carlos José de Carvalho	Director	1999

Set forth below is brief biographical information for each of the members of the Board of Directors:

*Ney Aminthas de Barros Braga*. Mr. Barros Braga pursued a career in the military, where he attained the rank of general. He has served on the Board of Directors since 1991 and is now its Chairman.

Mr. Barros Braga served as President of Itaipu from 1985 until 1990, as Governor of the State of Paraná from 1961 to 1966 and from 1979 to 1982, as the Federal Minister of Education from 1974 to 1978, as a Federal Senator from 1967 to 1974, as Federal Minister of Agriculture in 1965 and 1966, and as a Federal Congressman from 1959 to 1961.

Ingo Henrique Hübert. Mr. Hübert received an electrical engineering degree from the Federal University of Paraná. He is the Chief Executive Officer of the Company. He has been a member and Secretary of the Board of Directors since 1995. Mr. Hübert served as the Chief Executive Officer of ABS – Indústria de Bombas Centrífugas Ltda. from 1991 to 1995, and as an executive officer of INCEPA – Indústria Cerâmica do Paraná S.A. from 1988 to 1991.

Alexandre Fontana Beltrão. Mr. Fontana Beltrão received a civil engineering degree from the Federal University of Paraná and a Master's degree in Regional Economics and Development from the Polytechnic School of São Paulo. Previously, Mr. Fontana Beltrão served as the Secretary of Science, Technology and Higher Education for Paraná and as the Chief Executive Officer of the Technology Institute of Paraná – TECPAR.

*Benedito Aparecido Carraro*. Mr. Carraro received an electrical engineering degree from the Federal University of Santa Catarina. He is the Manager of Planning and Engineering of Eletrobrás.

Fabiano Braga Côrtes. Mr. Côrtes received a law degree from the Law School of Curitiba. Mr. Côrtes served as the Chief Operating Officer of Itaipu in 1988, and he was a Federal Congressman from 1983 to 1986, Chief of Staff of the Governor of the State of Paraná from 1979 to 1983 and President of the House of Representatives of the State of Paraná from 1979 to 1980.

Eduardo Guy de Manuel. Mr. Manuel received an electrical engineering degree from the Technological Institute of Aeronautics – ITA. He is Chief Executive Officer of SIGMA DATSERV, President of the Commercial Association of Paraná and a member of the Boards of Directors of the Higher Institute of Business Administration Studies – ISAD and of the Brazilian Institute for Quality and Productivity in Paraná.

Lubomir Antônio Ficinski Dunin. Mr. Dunin received an degree in urban architecture from the Federal University of Paraná and a degree in civil engineering from the Federal University of Paraná. He is Secretary of the State of Paraná for Planning and General Coordination and Secretary of State of Paraná for Urban Development.

Nicolau Imthon Klüppel. Mr. Klüppel has a degree in civil engineering from the Federal University of Paraná. He was the Assistant to the Mayor of Curitiba for Recycling Solid Waste and the Environment from 1989 to 1992 and Secretary of the Water Treatment and Sewage Municipal Department of Curitiba from 1993 to 1996. Mr. Klüppel is currently the head of the Paraná Agency for the Development of Water Resources and Management of the Environment.

Carlos José de Carvalho. Mr. Carvalho received an electrical engineering degree from Pontifícia Universidade de Católica de Minas Gerais in 1971. He currently serves as a manager in the Company's distribution area.

#### **Board of Executive Officers**

The Company's Board of Executive Officers meets weekly and is responsible for the day-to-day management of the Company. Each Executive Officer also has individual responsibilities established by the shareholders.

The Executive Officers are elected by the Board of Directors for three-year terms but may be removed by the Board of Directors at any time. The terms of the current members of the Board of Executive Officers expire in March 2000. The current members are as follows:

Name	Position	Since
Ingo Henrique Hübert	Chief Executive Officer	1995
Ferdinando Schauenburg	Chief Financial Officer	1996
Mario Roberto Bertoni	Chief Officer of Corporate	1995
	Partne rships	
Lindolfo Zimmer	Chief Marketing Officer	1995
José Maria Araque Ruiz	Chief Planning Officer	1997
Miguel Augusto Queiroz Schünemann	Chief Administrative Offi-	1995
	cer	
Deni Lineu Schwartz	Chief Officer of Govern-	1997
	mental Relations	

Set forth below is brief biographical information for each of the Executive Officers:

Ferdinando Schauenburg. Mr. Schauenburg received an economics degree from the Federal University of Paraná. Previously, he served as consultant to the Chief Executive Officer of the Company, and as Director of the Secretariat of Planning and General Coordination of the State of Paraná from 1991 until 1994.

*Mario Roberto Bertoni.* Mr. Bertoni received an electrical engineering degree from the Federal University of Paraná. Previously, Mr. Bertoni served as Chief Distribution Officer and Technical Superintendent of Distribution of the Company. He has been employed by the Company since 1973.

Lindolfo Zimmer. Mr. Zimmer received degrees in economics and mechanical engineering from the Federal University of Paraná and a Master's degree in economic engineering and industrial business administration from the Federal University of Rio de Janeiro. Previously, Mr. Zimmer served as Manager of COPEL's Division of Mechanical Maintenance of the Operations Department. He has been employed by the Company for more than 17 years.

*José Maria Araque Ruiz.* Mr. Ruiz received an electrical engineering degree from the Federal University of Paraná. Previously Mr. Ruiz served as Assistant Manager of Distribution at COPEL. He has been employed by the Company since 1972.

*Miguel Augusto Queiroz Schünemann*. Mr. Schünemann received a civil engineering degree from the University of Paraná. Previously, he served as head of the Department of Coordination of Planning and Energy Studies at COPEL. He has been employed by the Company since 1969.

Deni Lineu Schwartz. Mr. Schwartz received a civil engineering degree from the Federal University of Paraná. Mr. Schwartz has served as Secretary of Transportation for the State of Paraná (1983-1985 and 1995-1997), as a member of the Brazilian Federal Congress from 1993 to 1994, and as Brazilian Federal Minister for Urban Development and Environment from 1986 to 1987, in addition to several terms as a member of the House of Representatives of the State of Paraná.

#### **Audit Committee**

The Company's Audit Committee, which generally meets every three months, consists of five members and five alternates (deputy members) elected by the shareholders at the annual meeting for one-year terms. The primary responsibility of the Audit Committee, which is independent of management and of the external auditors appointed by the Board of Directors, is to review the Company's financial statements and report on them to the shareholders. The Audit Committee is also charged with issuing special reports on proposed changes in capitalization, corporate budgets and proposed dividend distributions and any corporate reorganization. The Audit Committee has general responsibility for supervising the activities of management and reporting on them to the shareholders.

The current members and alternates of the Audit Committee, whose terms expire in 1999, are as follows:

Name	Since
Eduardo Marques Dias (Chairman)	1995
Dirceu Pires de Araújo	1995
Norton José Siqueira Silva	1995
Fric Kerin	1995
Rogério Ferreira Morgado	1997
Alternates	
César Ribeiro Ferreira	1992
Miguel Arão Ribas Droppa	1995
Rosangela Heinz Gavinho Ferraz	1995
Getulio Miranda de Paula Garcia	1995
Carlos Alberto de Carvalho Afonso	1992

#### Item 11. Compensation of Directors and Officers

For the year ended December 31, 1998, the aggregate amount of compensation paid by the Company to all directors and executive officers was approximately R\$2.7 million.

#### Item 12. Options to Purchase Securities from Registrant or Subsidiaries

There were no outstanding options to purchase Class B Shares of the Company from the Company at December 31, 1998.

#### Item 13. Interest of Management in Certain Transactions

See "Description of Business—Relationship with the State Government," "Management's Discussion and Analysis of Financial Condition and Results of Operations—Impact of CRC Account" and Notes 10 to the Financial Statements for a description of certain transactions between the Company and the State Government.

#### **PART II**

#### Item 14. Description of Securities to be Registered

Not applicable.

#### **PART III**

#### Item 15. Defaults upon Senior Securities

Not applicable.

# Item 16. Changes in Securities, Changes in Security for Registered Securities and Use of Proceeds Not applicable.

#### **PART IV**

#### Item 17. Financial Statements

Not applicable.

#### Item 18. Financial Statements

Reference is made to pages F-1 through F-57.

#### Item 19. Financial Statements and Exhibits

(a) The following Financial Statements are filed as part of this Form 20-F:

Independent Auditors' Report

**Balance Sheet** 

Statement of Income

Statement of Changes in Shareholders' Equity

Statement of Changes in Financial Position

Notes to the Financial Statements

#### (b) List of Exhibits

*Estatutos sociais* of the Company, as amended to the date of filing (filed by incorporation by reference to the Company's Form 6-K filed on February 3<sup>rd</sup>, 1999).

CRC Account Agreement, dated August 4, 1994, by and between the Company and the State Government (filed by incorporation by reference to Exhibit 10.1 to Form F-1 dated June 30, 1997, file no. 333-7148).

Amendment to CRC Account Agreement, dated October 1, 1997, by and between the Company and the State Government (filed by incorporation by reference to Item 19(b) to Form 20-F dated June 30, 1998, file number 1–14668).

Agreement, dated December 21, 1998, by and between the Company and the State Government relating to the prepayment of ICMS Tax.

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CEHPAR		non-U.S. holder	
Charter		NSO	
CHESF		NYSE	
Class A Shares		optimization rate	
Class B Shares		Option Agreement	
Code		Paraná	
Commercial Market		Paraná Stock Exchange	
Common Shares		R\$	
Company		reais	
COPEL		real	
CPMF tax		Real Plan	
CRC Account		Registered Capital	
CRC Account Agreement		RGR Fund	
Cruzado Period		Rio de Janeiro Stock Exchange	
Custodian		Sanepar	
Deposit Agreement		São Paulo Stock Exchange	
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Depositary DNAEE		Sercomtel	
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#### TECHNICAL GLOSSARY

Average Tariff or Rate: Total sales revenue divided by total megawatt hours (MWh) sold for each relevant period, including in the case of the Company, unbilled electricity. Total sales revenue, for the purpose of computing average tariff or rate, includes both gross billings before deducting value-added tax and unbilled electricity sales upon which such taxes have not yet accrued.

BNDES: Banco Nacional de Desenvolvimento Econômico e Social, the National Bank for Economic and Social Development, the government-owned national development bank of Brazil.

Capacity Charge: A charge for sales of energy that is based on the amount of firm capacity contracted by a customer and that is independent of the amount of energy actually consumed by that customer.

COMASE: Comitê Coordenador das Atividades do Setor Elétrico, the Coordinating Committee for Activities of The Electric Sector.

Distribution: the transfer of electricity from the transmission lines at grid supply points and its delivery to customers through distribution lines at voltages between 13.8 kV and 44 kV.

Distributor: An entity supplying electrical energy to a group of customers by means of a distribution network.

Energy Charge: A charge for sales of energy to a customer that is dependent upon the amount of energy actually consumed by that customer.

Final Customer: A party that uses electricity for its own needs.

Firm Capacity: The level of electricity which COPEL can deliver from a specified power plant with a 95.0% degree of certainty, determined in accordance with certain prescribed statistical models.

Generating Unit: An electric generator together with the turbine or other device that drives it.

Gigawatt (GW): one billion watts.

Gigawatt hour (GWh): One gigawatt of power supplied or demanded for one hour, or one billion watt hours.

GCOI: Grupo Coordenador para Operação Interligada, the Coordinating Committee for Interconnected Operation.

GCPS: Grupo Coordenador de Planejamento dos Sistemas Elétricas, the Coordinating Committee for the Planning of Electric Systems.

High Voltage or Tension: A class of nominal system voltages equal to or greater than 100,000 volts and less than 230,000 volts.

Hydroelectric Plant: A generating unit that uses water power to drive the electric generator.

Installed Capacity: The level of electricity which can be delivered from a particular generating unit on a full-load continuous basis under specified conditions as designated by the manufacturer.

Interconnected Power System: Systems or networks for the transmission of energy, connected together by means of one or more links (lines and/or transformers).

Interconnected Power System—South/Southeast: The Interconnected Power System that links the distribution and transmission lines of the South, Southeast and Midwest.

IPP: Independent Power Producer, a legal entity or consortium holding a concession or authorization for power generation for sale for its own account to public utility concessionaires or Unregulated Customers.

Itaipu: Itaipu Binacional, a hydroelectric facility owned equally by Brazil and Paraguay.

Kilovolt (kV): one thousand volts.

Kilowatt (KW): one thousand watts.

Kilowatt hour (KWh): One kilowatt of power supplied or demanded for one hour, or one thousand watt hours.

Megawatt (MW): one million watts.

Megawatt hour (MWh): One megawatt of power supplied or demanded for one hour, or one million watt hours.

Megavolt Ampere (MVA): One thousand Volt Amperes.

NSO: National System Operator, an entity responsible for operational planning, administration of generation and transmission and planning of transmission investments in the electricity sector.

Optimization Rate: A subsidized rate for the sale of energy to the Interconnected Power Systems that reflects only the operating cost associated with such energy (and does not include profit or return on investment for the seller).

Self-producer: an electric-intensive user that holds a concession, permission or authorization to produce energy for its own consumption.

South Region: The States of Paraná, Rio Grande do Sul and Santa Catarina.

Southeast Region: The States of São Paulo, Rio de Janeiro, Minas Gerais and Espírito Santo.

State Government: The government of the Brazilian State of Paraná.

Substation: An assemblage of equipment which switches and/or changes or regulates the voltage of electricity in a transmission and distribution system.

Thermoelectric Plant: A generating unit which uses combustible fuel, such as coal, oil, diesel natural gas or other hydrocarbon as the source of energy to drive the electric generator.

Transmission: The bulk transfer of electricity (in lines with capacity between 500 kV and 34.5 kV) from generating facilities to the distribution system at load center station by means of the transmission grid.

UFIR: Unidade Fiscal de Referência-UFIR, a measure of inflation.

Unbilled electricity: Electricity which has been delivered to a customer, but for which the utility has yet to deliver a bill.

Unregulated Customers: (i) existing customers with demand of at least 10 MW and supplied at voltage level equal to or greater than 69 kV; (ii) new customers with demand of at least 3 MW at any voltage; (iii) groups of customers subject to agreement with the local distribution concessionaire; (iv) customers who do not receive supply for more than 180 days from a local distribution concessionaire; and (v) certain others.

URV: Unidade Real do Valor, the inflation index introduced during the implementation of the *Real* Plan.

Utility: An entity which is the holder of a concession or authorization to engage in the generation, transmission or distribution of electric energy in Brazil.

Volt: The basic unit of electric force analogous to water pressure in pounds per square inch.

Watt: The basic unit of electrical power.

Wheeling: A transportation charge expressed in reais.

#### **SIGNATURES**

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the Company certifies that it meets all of the requirements for filing on Form 20-F and has duly caused this Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized.

COMPANHIA PARANAENSE DE ENERGIA – COPEL

By: /s/ Ingo Henrique Hübert

Name: Ingo Henrique Hübert Title: Chief Executive Officer

By: \_\_\_\_\_/s/ Ferdinando Schauenburg

Name: Ferdinando Schauenburg Title: Chief Financial Officer

Date: June 30, 1999

# Financial Statements As of and For the Years Ended December 31, 1998, 1997 and 1996

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#### REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To the Board of Directors and Shareholders

Companhia Paranaense de Energia - COPEL

We have audited the accompanying balance sheets of COMPANHIA PARANAENSE DE ENERGIA - COPEL (a Brazilian corporation) as of December 31, 1998 and 1997, and the related statements of income, changes in shareholders' equity and changes in financial position for each of the three years in the period ended December 31, 1998. The financial statements of December 31, 1997 and 1996 have been restated for price-level changes as of December 31, 1997. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We have conducted our audits in accordance with generally accepted auditing standards in Brazil, which are substantially the same as those followed in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Companhia Paranaense de Energia - COPEL as of December 31, 1998, and 1997, and the results of its operations, changes in its shareholders' equity and changes in its financial position for each of the three years in the period ended December 31, 1998 in conformity with generally accepted accounting principles in Brazil (Notes 2 and 3).

During the year ended December 31, 1998, the Company reversed the special monetary restatement (Law No. 8,200/91), as explained in Note 4.

Accounting practices of the Company used in preparing the accompanying financial statements conform with generally accepted accounting principles in Brazil, but do not conform with accounting principles generally accepted in the United States of America (US GAAP). A description of the significant differences between Brazilian GAAP and US. GAAP, and the approximate effect of those differences on shareholders' equity and net income, are set forth in Note 34 of the Notes to the financial statements.

Curitiba, Brazil

February 22, 1999 (except for Note 33 As to which the date is May 12, 1999)

#### **BALANCE SHEET**

(Expressed in thousands of Brazilian Reais.)

# **ASSETS**

	Decem	ıber 31,
	1998	1997
CURRENT ASSETS		-
Cash and cash equivalents	212,628	670,119
Accounts receivable	221,303	201,509
Services in progress	17,954	30,350
Allowance for doubtful accounts	(11,671)	(4,427)
Materials and supplies	10,449	5,521
Recoverable Rate Deficit (CRC)	7,719	7,059
Prepayment of value-added tax (ICMS)	123,007	156,691
Other accounts receivables	44,941	37,871
Prepaid expenses	3,170	9,639
	629,500	1,114,332
LONG-TERM ASSETS:		
Deferred income tax	171,913	47,225
Judicial deposits	78,240	116,628
Recoverable Rate Deficit (CRC)	508,195	507,316
Long-term receivables and other	55,275	33,143
	813,623	704,312
INVESTMENTS	264,977	94,223
PROPERTY, PLANT AND EQUIPMENT:		
In service	6,515,784	8,237,401
Accumulated depreciation	(2,142,665)	(2,912,000)
	4,373,119	5,325,401
Construction work in progress	1,716,479	1,096,727
-	6,089,598	6,422,128
Total assets	7,797,698	8,334,995

The accompanying notes are an integral part of these financial statements.

#### **BALANCE SHEET**

(Expressed in thousands of Brazilian Reais.)

# **LIABILITIES AND SHAREHOLDERS' EQUITY**

	December 31,	
	1998	1997
CURRENT LIABILITIES:		
Suppliers	53,724	48,988
Loans and financing	173,139	375,723
Advance billings of electric power	12,364	13,273
Taxes, other than income tax	68,509	61,397
Dividends proposed	122,422	70,592
Accrued payroll costs	55,813	70,367
Pension plan	26,906	11,833
Regulatory charges	23,513	14,025
Other accrued liabilities	25,921	20,947
	562,311	687,145
LONG-TERM LIABILITIES:		
Loans and financing	917,140	744,114
Special liabilities	586,732	747,274
Deferred income taxes	213,439	462,117
Other taxes	55,826	158,991
Advance billings of electric power	35,108	43,535
Pension plan	456,613	28,186
Other liabilities	78,136	66,143
	2,342,994	2,250,360
SHAREHOLDERS' EQUITY:		
Capital stock	1,339,732	1,283,507
Capital reserves	2,261,944	2,985,307
Income reserves	1,276,146	1,114,105
	4,877,822	5,382,919
Credits for capital increase	14,571	14,571
1	4,892,393	5,397,490
Total liabilities and shareholders' equity	7,797,698	8,334,995
20th Mashiros and situronoidors equity miniminim	-,,,,,,,,,	5,001,000

The accompanying notes are an integral part of these financial statements.

# STATEMENT OF INCOME

 $(Expressed\ in\ thousands\ of\ Brazilian\ Reais.)$ 

	Year Ended December 31,			
	1998	1997	1996	
OPERATING REVENUES:				
Electricity sales to final customers	1,759,652	1,628,779	1,513,248	
Value-added taxes on sales to final customers	(427, 267)	(429,072)	(394,922)	
Electricity sales to distributors	57,849	80,409	99,943	
Use of transmission plant	9,970	-	-	
Other revenues	34,559	30,087	40,479	
Net operating revenues	1,434,763	1,310,203	1,258,748	
OPERATING EXPENSES:				
Electricity purchased for resale	(197,081)	(184, 362)	(175,595)	
Use of transmission plant	(26,686)	-	-	
Depreciation and amortization	(244,783)	(264,650)	(236,741)	
Personnel	(314,049)	(308, 236)	(282,918)	
Regulatory charges	(107, 376)	(88,174)	(85,707)	
Third party services	(82,177)	(95,842)	(83,167)	
Materials and supplies	(32,819)	(26,722)	(22,585)	
Pension and other benefits	(62,108)	(30,855)	(28,920)	
Other expenses	(25,242)	(16,254)	(62,340)	
Total operating expenses	(1,092,321)	(1,015,095)	(977,973)	
OPERATING INCOME	342,442	295,108	280,775	
EQUITY IN RESULTS OF INVESTEES	(8,631)	-	-	
OTHER INCOME (EXPENSE):				
Financial income (expense), net	93,057	133,619	72,701	
Non-operating income (expenses), net	51,616	(24,205)	(23,447)	
Total other income (expense)	144,673	109,414	49,254	
INCOME BEFORE TAXES	478,484	404,522	330,029	
Provision for income taxes	(89,994)	(73,334)	(58,646)	
INCOME BEFORE EMPLOYEE PARTICIPATION	388,490	331,188	271,383	
Employee Participation	(14,000)	(24,500)	(20,189)	
NET INCOME	374,490	306,688	251,194	
Earnings per Thousand Outstanding				
Shares at Year end, in Units of Brazilian Reais	1.37	1.12	1.04	

# STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

(Expressed in thousands of Brazilian Reais.)

	Capital Stock	Capital Reserves	Income Reserves	Retained Earnings	Subtotal	Credits for Capital Increase	Total
BALANCE AS OF DECEMBER 31, 1995	645,962	2,921,802	982,661	94,725	4,645,150	4,227	4,649,377
DALANCE AS OF DECEMBER 31, 1993	043,302	2,321,002	-	34,723	-	10,344	10,344
		-	-	-	-	10,344	10,344
Credits for capital increase		-	=	-	-	=	-
Remuneration of construction work in progress		51,474	-	-	51,474	-	51,474
Tax incentive		1,435	-	-	1,435	-	1,435
Income tax adjustment on monetary restatements - Law 8200							
	-	(19,674)	-	-	(19,674)	-	(19,674)
Realization of income reserve		=	(38,851)	38,851	=	=	=
Net income for the year		-	-	251,194	251,194	-	251,194
Distribution of net income:		-	-	-	-	-	-
Legal reserve		-	10,422	(10,422)	-	-	-
Dividends proposed		=	=	(125,593)	(125,593)	-	(125,593)
Deferred income tax on price level adjustments on property,							
plant and equipment and inventories		=	=	(128,956)	(128,956)	=	(128,956)
BALANCE AS OF DECEMBER 31, 1996	645,962	2,955,037	954,232	119,799	4,675,030	14,571	4,689,601
Capital paid in	637,545	-	_	-	637,545	-	637,545
Remuneration of construction work in progress		30,270	-	-	30,270	-	30,270
Realization of income reserve			(238,985)	238,985	-	_	-
Net income for the year		-	(,,	306,688	306,688	-	306,688
Distribution of net income:				,	,		,
Legal reserve		_	15.128	(15,128)	-	_	_
Dividends proposed		_	-	(150,000)	(150,000)	_	(150,000)
Deferred income tax on price level adjustments on property,	••			(100,000)	(100,000)		(100,000)
plant and equipment and inventories		-	-	(116,614)	(116,614)	-	(116,614)
BALANCE AS OF DECEMBER 31, 1997	1,283,507	2,985,307	730,375	383,730	5,382,919	14,571	5,397,490
D: (A) (A) (A)				(000 005)	(000 005)		(000 005)
Prior year adjustments (Note 29)		- (700.050)	-	(302,395)	(302,395)	-	(302,395)
Reversion of Special Monetary Correction (Note 4)		(763,056)	-	281,781	(481,275)	=	(481,275)
Capitalization of reserves		(590)	(55,635)	-	-	-	-
Remuneration of construction work in progress		25,686	-	-	25,686	-	25,686
Tax incentive		14,597	-	-	14,597	-	14,597
Realization of income reserve		=	(64,400)	64,400	=	=	=
Net income for the year		-	-	374,490	374,490	-	374,490
Distribution of net income:							
Legal reserve		-	20,163	(20,163)	-	-	-
Dividends proposed		-	-	(136,200)	(136,200)	=	(136,200)
Income reserves			645,643	(645,643)	-		-
BALANCE AS OF DECEMBER 31, 1998	1,339,732	2,261,944	1,276,146	-	4,877,822	14,571	4,892,393

The accompanying notes are an integral part of these financial statements.

# COMPANHIA PARANAENSE DE ENERGIA - COPEL

# STATEMENT OF CHANGES IN FINANCIAL POSITION

(Expressed in thousands of Brazilian Reais.)

	Year ended December 31,		
	1998	1997	1996
SOURCES OF FUNDS:			
Funds generated from operations			
Net income for the yearItems not requiring working capital -	374,490	306,688	251,194
Depreciation and amortization	244,783	264,650	236,741
Long-term monetary variations	40,341	(33,785)	(61,898)
Equity in results of investees	8,631	-	-
Disposal of property, plant and equipment and other	36,302	38,861	30,245
Long-term liabilities provisions	10,267	10,151	39,464
Deferred income tax	29,692	26,815	12,256
<u> </u>	744,506	613,380	508,002
FUNDS FROM SHAREHOLDERS:			
Capital paid in and credits for capital increase	-	637,545	10,344
Funds from third-parties:			
Long-term loans and financing	221,409	523,942	118,765
Consumers' contribution - special liabilities	26,272	28,519	28,692
Transfer from long-term to current assets	18,739	40,452	46,002
Advance billing of electric power and other	-	49,851	27,452
Total sources	1,010,926	1,893,689	739,257
APPLICATION OF FUNDS:			
Property, plant and equipment	763,194	610,347	546,520
Investments	240,811	17,012	8,387
Transfer from long-term to current liabilities:			
Long-term loans and financing	98,393	239,901	55,641
Taxes	26,042	42,007	56,001
Pension plan	28,186	91,594	34,086
Advance billings of electric power and other	14,427	24,345	3,758
. Dividends proposed	136,200	150,000	125,593
Judicial deposits and other	63,671	47,249	35,270
Total applications	1,370,924	1,222,455	865,256
INCREASE (DECREASE) IN WORKING CAPITAL	(359,998)	671,234	(125,999)
REPRESENTED BY:			
Current assets			
Beginning of the period	1,114,332	422,049	335,064
End of the period	629,500	1,114,332	422,049
Increase (decrease) in current assets	(484,832)	692,283	86,985
Current liabilities			
Beginning of the period	687,145	666,096	453,112
End of the period	562,311	687,145	666,096
(Increase) decrease in current liabilities	124,834	(21,049)	(212,984)
Total increase (decrease) in working capital	(359,998)	671,234	(125,999)

#### COMPANHIA PARANAENSE DE ENERGIA - COPEL

### NOTES TO THE FINANCIAL STATEMENTS

(In thousands of Brazilian reais, unless otherwise indicated)

#### 1. THE COMPANY AND ITS OPERATIONS

Companhia Paranaense de Energia - COPEL ("COPEL" or the "Company") is a mixed-capital corporation (sociedade de economia mista) with limited liability, organized under the laws of Brazil and controlled by the Paraná State Government.

The Company's principal business is the researching, planning, construction and operation of electricity generation plants and the transmission and distribution of electric energy in the State of Paraná. In addition Copel is authorized to participate in other companies, in the energy and telecommunications areas.

As concessionaire of electric utility services, the Company is subject to regulations set by *Agência Nacional de Energia Elétrica* – *ANEEL* ("the Department of Energy", formerly DNAEE – Departmento Nacional de Energia Elétrica), an agency of the Federal Government.

In March 1994, the Company obtained its registration with Comissão de Valores Mobiliários – CVM (the "CVM"), the Brazilian Securities Commission (equivalent to U.S. SEC) as a publicly held company and its shares are now traded on all of the Brazilian stock exchanges, mainly São Paulo, Rio de Janeiro and the Paraná stock exchanges.

In July 1997, the Company registered with the United States Securities Exchange Commission (the "SEC") and its shares were listed on the New York Stock Exchange ("NYSE"), through an American Depositary Shares (ADS) program.

COPEL has 19 power plants in operation, 16 hydroelectric and 3 thermoelectric, with an installed capacity of 3,306 MW and has investments in the Salto Caxias hydroelectric power plant presently under construction, which is expected to increase installed capacity by 1,240 MW in the future. The first generator began operating in February 1999.

#### 2. BASIS FOR PRESENTATION OF FINANCIAL STATEMENTS

a. Presentation of Financial Statements and Requirements of Brazilian Legislation

Until December 31, 1995, publicly-traded companies were required to prepare financial statements pursuant to two methods: (i) the corporate law method, which was and remains valid for all legal purposes; and (ii) the constant currency method, to present supplementary price-level adjusted financial statements, pursuant to the standards prescribed by the CVM.

On December 26, 1995, the Brazilian Government enacted Law No. 9,249 which, among several changes in tax legislation and corporate law, eliminated accounting for the effects of inflation as from January 1<sup>st</sup>, 1996, for tax and financial reporting purposes.

On March 19, 1996, the CVM issued the Instruction No. 248 stating that quarterly and annual financial statements should be prepared in accordance with the corporate law method (which no longer accounts for the effects of inflation). However, companies are allowed to present supplementary price-level adjusted financial information, following the standards previously adopted.

For Brazilian official financial reporting purposes, the Company prepared its 1998, 1997 and 1996 financial statements under both the corporate law and constant currency methods. However, the corporate law financial statements are not presented herein because of the nonrecognition of the effects of inflation. The reconciliation of shareholders' equity and net income under both methods is presented in Note 32.

If a company elects to present the price level adjusted financial statements for use outside Brazil, such statements must also be disclosed in Brazil.

In accordance with Resolution ANEEL No. 001, of December 24, 1997, Copel started recording its transactions in accordance with the new chart of accounts of the electric energy sector, ("Plano de Contas do Setor Público de Energia Elétrica"). Additionally, as stated in the ANEEL Letter No. 004, of January 11, 1999, certain additional information and explanatory notes and supplementary attachments are included in these financial statements.

The accompanying financial statements are a translation and adaptation from those originally issued under the constant currency method. The principal change refers to the updating of all historical amounts of 1996 and 1997 to reflect the purchasing power of the currency as of December 31, 1997. Also, certain reclassifications and changes in terminology have been made and these notes have been expanded, in order to conform more closely to reporting practices prevailing pursuant to generally accepted accounting principles in the United States of America ("U.S. GAAP").

#### a (i). The Corporate Law method

The corporate law method provided for a simplified methodology of accounting for the effects of inflation. It consisted of restating permanent assets (property, plant and equipment, investments and deferred charges), special liabilities and shareholders' equity accounts using the indices mandated by the Federal Government. The net effects represented the inflation gain or loss credited or charged to income in a single account ("Inflation Adjustments") in the income statement. However, it failed to fully recognize the effects of inflation in certain balance sheet accounts and in substantially all components in the statement of income, changes in shareholders' equity and changes in financial position.

The corporate law method did not require monetary restatement of the accounts from prior year being presented and under inflationary conditions which prevailed in Brazil, the financial statements prepared according to the corporate law method did not present useful information to their readers, and did not permit meaningful period-to-period comparisons of financial information. However, they were and remain the basis for determining income taxes and shareholders' rights, such as the computation of cash dividends and distribution of share dividends.

# a (ii). Constant currency method

Under the constant currency method, up to December 31, 1997, all historical Brazilian real amounts in the financial statements and notes were expressed in the constant purchasing power of that currency at the latest balance sheet date, in accordance with standards prescribed by the CVM for publicly-traded entities. These standards required that all transactions and balances recorded in a company's statutory accounts

under the corporate law method be monetarily restated to reflect the changes caused by inflation (as measured by a specific inflation index) from the date they occurred or were generated to the latest balance sheet date. Accordingly, all relevant nonmonetary assets and liabilities and shareholders' equity accounts, all components of the statements of income, changes in shareholders' equity and changes in financial position and the notes thereto related to 1997 and 1996 were monetarily restated to reflect the changes in the inflation index to December 31, 1997.

Also, up to December 31, 1997, significant monetary assets and liabilities which included anticipated inflation and prefixed interest were adjusted to their present values at the balance sheet date based on the average National Association on Investment and Development Banks ("ANBID") interest rates. The gains and losses on monetary assets and liabilities attributable to changes in index, calculated on a monthly basis, were allocated to the corresponding income or expense components in the statement of income.

With the change in legislation mentioned above, the CVM did not define a specific index to be used for the preparation of optional price-level adjusted financial statements. The Brazilian Institute of Accountants (the "IBRACON") has recommended the General Market Price Index ("IGP-M") as the index to be used for this purpose, prospectively, as from January 1, 1996.

The Company's Management believed that the General Price Index computed by Fundação Getúlio Vargas was the most appropriate and consistent measure of the general price inflation in Brazil and elected IGP-M (which differs from IGP-DI only with regard to the cut off date for price data collection) for purposes of remeasurement of its financial statements under the constant currency method, from January 1, 1996 up to December 31, 1997. Had the Company used the IGP-DI for this purpose, the impact on the financial statements for the year ended December 31, 1996 would not have been material.

However, from January 1, 1997 to December 31, 1997, the Company began using the IGP-DI index, which the Company had used for purposes of preparing its U.S. GAAP reconciliation for 1996 and prior periods, to restate its Brazilian GAAP financial statements. The use of IGP-DI for all purposes avoids minor adjustments in the reconciliation of Brazilian GAAP to U.S. GAAP that would otherwise be necessitated by the use of two different indices.

The price-level adjustments to reflect the currency purchasing power at December 31, 1997 did not purport to change the financial statements from prior-periods in any way, but only to update the amounts to a constant currency measurement unit.

Based on the fact that, effective January 1st, 1998, according to SFAS 52 and international accounting standards, the Brazilian economy ceased to be "hyper-inflationary", the Company's financial statements have not been price-level adjusted as from that date, but the restated balances as of December 31, 1997 became the new basis of accounting from January 1st, 1998.

Generally accepted accounting principles in the United States of America ("U.S. GAAP") allows enterprises located in countries with highly inflationary economies to prepare financial statements restated for general price-level changes pursuant to standards substantially equivalent to those established by the CVM, with the use of an appropriate index.

#### b. Price-Level Indices

The Tax Reference Unit – UFIR (the "UFIR") was the index defined by the government for purposes of computing inflation adjustments in the financial statements under the corporate law method. It was also the index selected by the CVM for constant currency financial statements. The UFIR has at times differed from the inflation reflected in the National Consumer Price Index (INPC) and in the General Price Index (IGP-DI and IGP-M). The following table compares the variation in these indices for the periods indicated.

	Year Ended December 31,		
	1998	1997	1996
Government/Tax indices:	(Perce	ntage var	iation)
Unidade Fiscal de Referência – UFIR			
(Tax Reference Unit)	1.6	5.5	9.9
Índice Nacional de Preços ao Consumidor –			
INPC (National Consumer Price Index)	2.5	4.3	9.1
Independent Inflation Index:			
Índice Geral de Preços de Mercado – IGP-M			
(General Market Price Index)	1.8	7.7	9.2
Índice Geral de Preços de Disponibilidade Interna –			
IGP-DI (General Prices Index - DI)	1.7	7.5	11.0
Devaluation:			
Brazilian real vs. U.S. dollar	8.3	7.4	6.9

#### c. Translation of Balances in Brazilian Reais into U.S. Dollars

The financial statements and the amounts included in the notes are stated in constant Brazilian reais. Certain amounts in such notes have been translated into U.S. dollar at the rate of R\$1.2087 to US\$1.00, the exchange rate reported by the Central Bank of Brazil as of December 31, 1998. Such translation has been made solely for the convenience of readers outside Brazil and should not be construed as a representation that the Brazilian real amounts could have been converted into U.S. dollars at this or any other rate.

#### 3. SUMMARY OF ACCOUNTING POLICIES

The Company's accounting policies comply with generally accepted accounting principles in Brazil ("Brazilian GAAP"), which include the accounting principles specifically applicable to electric utility companies in Brazil as required by the Department of Energy. Certain accounting policies differ from those adopted in the United States of America (U.S. GAAP). See Note 34 for further discussions of the differences and the reconciliations of shareholders' equity and net income to U.S. GAAP.

- a. Regulated accounting policies
- a(i) Property, plant and equipment

These assets are stated at price-level adjusted acquisition or construction cost, adjusted by special monetary restatement under Law 8,200/91 for the period ended in December 31, 1997.

As from January 1<sup>st</sup>, 1998, the Company had reverted the effects of the special monetary restatement Law 8.200/91 (see Note 4).

Depreciation is computed on the straight-line method. The annual rates of depreciation are calculated based on ANEEL Instruction No. 002, of December 24, 1997, and are presented in Note 14.

# a(i.1.). Construction work in progress

Construction work in progress financed by the Company's own resources is remunerated as established by present legislation based on the long-term interest rate ("TJLP"), limited to the variation of the TJLP. This remuneration is added to the respective construction work in progress, and credited to a capital reserve, which amortization begins when the asset is placed in operation.

Starting i n January 1996, the interest and other financial charges on third-party loans applied to construction work in progress are capitalized and considered as part of the cost of the respective construction work in progress.

Remuneration on construction work in progress related to projects not completed by the periods established and approved by the Department of Energy, will be suspended as of the date estimated for the project's conclusion. The related financial charges and inflationary effects will not be allowed to be added to the recoverable cost of such projects after that date.

# a(ii) Special Liabilities

The balance is represented by contributions received from customers exclusively for investment in the electric energy distribution network to facilitate connection and by the reserve for reversion of concessionaire assets directly related to the concession granted to the Company. Eventual liquidation of these special liabilities is dependent upon future determination by the Department of Energy. These balances are restated by the same index that is used to restate property, plant and equipment.

### a(iii) Materials and Supplies

Materials and supplies are stated at price-level adjusted acquisition cost. Materials and supplies to be used in construction are included in property, plant and equipment.

# b. General accounting policies

# b(i) Cash and Cash Equivalents

This account includes highly liquid temporary cash investments (with original maturity dates of three months or less), which are stated at cost plus income accrued to the balance sheet date and are denominated in Brazilian reais.

### b(ii). Accounts Receivable

Accounts receivable includes both amounts billed to customers and accrued revenue relating to unbilled energy supplied to customers as of the balance sheet date. Charges arising from late payments are also accrued.

#### b(iii). Allowance for Doubtful Accounts

The allowance for doubtful accounts is recognized in an amount considered sufficient to cover potential losses on the realization of accounts receivable.

#### b(iv) Investments

The investments in controlled and associated companies are accounted for under the equity method of accounting. Other investments are stated at price-level adjusted cost, less valuation reserves when applicable.

#### b(v). Income and Social Contribution Taxes

Income tax is accrued on its taxable results at the applicable income tax rates (25% for 1998, 1997 and 1996). Social contribution tax (8% for 1998 and 1997 and 7,41% for 1996), that is computed based on income before income tax, is accrued and charged to income as provision for income tax. Deferred tax arising from temporary differences is accounted for under the liability method.

## b(vi). Pension Plans and Other Payroll Accruals

The Company maintains a separate entity ("Fundação COPEL") to administer pension funds for its employees (See Note 29). The costs associated with pension plans are accrued based on mathematical reserves determined by independent actuaries and are accounted for on the cash basis. Compensated absences and bonuses payable to employees are accrued as earned during the vesting periods.

b(vii) Income Statement

Revenues and expenses are recognized when earned or incurred.

b(viii). Assets and Liabilities Denominated in Foreign Currencies or Subject to Indexation

Assets and liabilities denominated in foreign currencies are translated into reais at the exchange rate reported by the Central Bank of Brazil at each balance sheet date. Those denominated in reais, and contractually or legally subject to indexation are restated to the balance sheet date applying the corresponding index.

Exchange gains and losses and monetary variation gains and losses are recognized in income on a current basis, except those related to construction work in progress, which are capitalized in the respective property, plant and equipment accounts.

b(ix). Earnings per Share

These amounts are calculated based on the number of shares outstanding at the balance sheet date.

b(x). Use of estimates

In preparing financial statements in accordance with generally accepted accounting principles, company management is required to make certain assumptions and estimates with respect to the recording of assets, liabilities and transactions. Actual results in the future may differ from the estimates included in these financial statements.

#### c. Constant currency presentation

In addition to the accounting practices described above, the following practices under Brazilian GAAP were adopted in the preparation of constant currency financial statements.

c(i). Index used for recognition of the effects of inflation

From January 1, 1996 to December 31, 1996, the monetary restatement of the financial statements under the constant currency method was based on the variation of IGP-M and from January 1, 1997 to December 31, 1997 this monetary restatement was based on IGP-DI (see Note 2).

c(ii). Nonmonetary assets and liabilities

Investments, property, plant and equipment, deferred charges, special liabilities and shareholders' equity accounts were restated up to December 31, 1997 based on the index described in c(i)) above. Income and social contribution taxes were accrued in respect to the increase in shareholders' equity due to the recognition of the effects of inflation.

c(iii). Statements of income, changes in shareholders' equity and changes in financial position for the years ended December 31, 1997 and 1996

All components of these statements were price level adjusted from the date or month they were first recorded through December 31, 1997. Gains/losses on monetary items attributed to the variation in index, calculated on a monthly average basis, were allocated to the corresponding income or expense components in the statement of income.

# 4. LAW No. 8,200/91 - OPTIONAL MONETARY RESTATEMENT AND EFFECTS OF NEW RATE LEGISLATION

a. Optional Special Monetary Restatement

Due to the existence, until 1990, of a significant difference between the generally recognized level of inflation and the official inflation indices established by the Federal Government to calculate the monetary restatement of financial statements, Article 2 of Law 8,200/91, as interpreted by Decree No. 332 of November 4, 1991 and CVM Instruction No. 167 of December 17, 1991, gave companies the option of recording a special monetary restatement of property, plant and equipment, deferred charges, investments and special liabilities accounts.

In 1991, COPEL elected to record this special monetary restatement which resulted in a write-up of the above-mentioned asset accounts, in the belief that this restatement would more realistically reflect the Company's equity and the related depreciation and amortization, and on the grounds that these costs would be allowed by the Department of Energy as components of the costs to determine electricity rates charged by the Company. The effects were recorded in 1991, increasing previously reported shareholders' equity by R\$1,122,410.

b. The effects of New Rate Legislation on the Recoverability of the Optional Special Monetary Restatement

Law No. 8,631 of March 4, 1993, modified by Law No. 8,724 of October 28, 1993, and related regulations, introduced significant changes to the regulatory structure governing electricity rates in Brazil (See Note 5 for further details).

As previously mentioned, COPEL recorded the optional special monetary restatement of property, plant and equipment and deferred charges on the grounds that its effects would be allowed by the Department of Energy as components of the rate base. Although COPEL had ongoing discussions with the Department of Energy regarding the inclusion of the related effects of optional special monetary restatement in the rate base, the Department of Energy disallowed such inclusion.

The 1993 legislation specifically disallowed the inclusion of the effects of the optional special monetary restatement in the determination of the balances of the Company's CRC Account. Also, in the implementation of the regulation on the rate structure under the new system, the Department of Energy has disallowed inclusion of depreciation charges related to the optional special monetary restatement as components of cost of service.

c. The reversion of Special Monetary Restatement (Law 8200/91)

Up to December 31, 1997, despite the Department of Energy's position mentioned in (a) above, the Company had not reversed the optional special monetary restatement since the results of its operations have been sufficient to cover the realization of the related assets restated by the optional special monetary restatement.

However, based on the Resolution CVM No. 235 of December 30, 1997 and on the specific communication from the Department of Energy regarding Copel, through the Fax No. 28 of April 1998, on April 30, 1998, the Board of Directors, the Audit Committee and the Shareholders' Meeting approved the reversion of Special Monetary Restatement effects (Law 8,200/91), retroactively to January  $1^{st}$ , 1998, as follows:

	R\$
Assets	
Current assets	1,903
Investments	3,125
Property, plant and equipment	1,892,651
Accumulated depreciation	(1,001,152)
Construction work in progress	8,915
	905,442
Liabilities and shareholders' equity	
Deferred income taxes	237,353
Special liabilities	186,814
Shareholders' equity	763,056
	1,187,223
Retained earnings	281,781

# 5. RATE LEGISLATION AND RECOVERABLE RATE DEFICIT (CRC ACCOUNT)

Until 1993, two important principles dominated the rate setting process in Brazil:

- (i) That electric utilities should be guaranteed an annual real rate of return on service-related assets included in the rate base; and
- (ii) That the rates charged to each class of customer for electric power should be uniform throughout Brazil, notwithstanding the high cost of distributing electricity to remote areas of the country.

Under the previous rate structure, the guaranteed return was set by the regulatory agency at a level between 10% and 12%, depending on the particular circumstances of each concessionaire.

In order to compensate concessionaire companies experiencing a rate of return below the national average of the sector, the Federal Government created the National Reserve for Compensation of Remuneration - RENCOR, through which profits from more profitable companies were to be reallocated to less profitable companies, so that the rate of return realized by all companies would be equal to the national average of the sector.

The shortfall experienced by most concessionaire companies between the guaranteed return and the actual realized rate of return was accounted for by an increase in each company's recoverable rate deficit (CRC Account), equal to such shortfall. This account was recorded, until 1992, in a memorandum account, not as an asset in the balance sheet.

Law No. 8,631 of March 4, 1993, modified by Law No. 8,724, of October 28, 1993, and related regulations, introduced significant changes to the regulatory structure governing electricity rates in Brazil, as follows:

- a. The CRC account was abolished and concessionaires with positive CRC Account balances were permitted to offset such balances against any liabilities such concessionaires had to the other concessionaires, to Federal financial institutions and to the Federal Government. Additionally, the Company was permitted to transfer CRC Account balances to the State of Paraná.
- b. Under the new system, the guaranteed return concept was abolished. Rather, under the new system, each concessionaire is required to propose a rate structure, based on its particular circumstances, for approval by the Federal regulatory authorities. Each concessionaire is required to submit a rate proposal to the Department of Energy for the period and for each subsequent three-year period, based on the individual company's cost structure.

The proposed rate is to be calculated taking into account the concessionaire's desired level of remuneration as well as the following costs: operating expenditures, including personnel, materials and third party service costs; costs of Itaipu electricity and electricity purchased from other concessionaire companies; depreciation and amortization charges, RGR Fund contributions and other regulatory charges and taxes other than income taxes.

On June 30, 1994, the Federal Government enacted certain provisional regulations in connection with its economic stabilization plan. These regulations, among other measures, suspended the rate-setting process established by Law No. 8,631, and provided that rates are to be fixed on an annual basis commencing July 1st, 1995.

# **6. LAW FOR PUBLIC SERVICE CONCESSIONS**

The concessions to provide public services for electric energy granted to COPEL are as shown below:

# a. Power Generating Plants

River	Power Plant	Installed Capacity (MW)	Date Concession was Issued	Year of Expiration
Hydroelectric plants:				
Iguaçu	Governador Bento Munhoz da Rocha Neto	1.676,00	May 25, 73	2023
Iguaçu	Segredo	1.260,00	Nov 16, 79	2029
Iguaçu	Salto Caxias - under construction - (See note 14.a)	1.240,00	Feb 05, 80	2010
Capivari	Governador Parigot de Souza	252,00	Nov 05, 71	2021
Chopin	Júlio de Mesquita Filho (discontinued on August, 1998)	50,00	Mar 11, 66	2026
Arraial	Guaricana	36,00	Aug 16, 78	2026
São João	Chaminé	18,00	Aug 16, 78	2026
Ipiranga	Marumbi	9,60	Mar 14, 56	2015
Apucaraninha	Apucaraninha	9,50	Oct 14, 75	2025
Mourão	Mourão I	7,50	Jan 27, 64	2014
Jordão	Derivação do Rio Jordão	6,50	Nov 14, 79	2009
Pitangui/Tibagi	São Jorge	2,30	Dec 05, 74	2024
Chopin	Chopim I	1,80	Mar 25, 64	2014
Rio dos Patos/Ivaí	Rio dos Patos	1,60	Feb 15, 84	2034
Cavernoso/Iguaçu	Cavernoso	1,20	Jan 08, 81	2031
Palmital	Salto do Vau	1,00	Jan 27, 54	2004
Pitangui	Pitangui	0,80	Dec 05, 54	2004
Melissa	Melissa	0,80	Oct 08, 93	2015
Thermoelectric plants:				
*	Figueira	20,00	Mar 27, 69	2019
*	Ilha do Mel	0,78	-	2018
*	Vila Ilha das Peças	0,24	-	2024

# b. Distribution

As of December 31, 1998 COPEL distributed electricity to 393 municipalities, primarily in the State of Paraná, representing 98% of the consumers in the State of Paraná (unaudited). The Company has distribution concessions for all those municipalities valid until 2016.

# 7. CASH AND CASH EQUIVALENTS

Financial institution	Interest rates December 31,		ber 31,
		1998	1997
Banco do Estado do Paraná S/A	101% CDI (1) variation	123,385	546,231
Banco do Brasil S/A	99% CDI(1) variation	49,913	81,056
Caixa Econômica Federal	99% CDI(1) variation	19,533	21,209
Banco Brasileiro de Descontos S/A			
- BRADESCO	99% CDI(1) variation	8,470	7,279
		201,301	655,775
Cash balances deposited in commerci	al banks	11,327	14,344
-		212,628	670,119

<sup>(1)</sup> Interbank Certificate of Deposit (CDI – Certificado de Depósito Interbancário) : CDI are notes negotiated among financial institutions in the Brazilian Financial Market

#### 8. ACCOUNTS RECEIVABLE

	December 31,		
	1998	1997	
Consumers-			
Billed	169,929	149,505	
Unbilled	42,035	40,135	
	211,964	189,640	
Electricity companies	9,339	11,869	
	221,303	201,509	

# 9. PREPAYMENT OF VALUE-ADDED TAX

On December 1998 and 1997, the Company prepaid to the Government of Paraná, the amounts of R\$122 million and R\$155 million, respectively, earning interest at the Interfinancial Deposit rate (DI) (2.4% monthly and 2.9% monthly at December 31, 1998 and 1997, respectively) plus an additional spread of 2% per month. The 1998 prepayment will be applied against the value-added tax (ICMS) due, related to 1999 sales revenues, in eight equal monthly installments from January 1999. The 1997 prepayment was applied against 1998 sales revenues in ten equal monthly installments.

#### 10. OTHER ACCOUNTS RECEIVABLE

	December 31,	
	1998 1997	
Debts receivable – SANEPAR (See note 12)	9,596	9,330
Income tax and social contribution		
tax paid in advance	14,609	12,108
Advances to suppliers and employees	14,329	12,783
Other	6,407	3,650
	44,941	37,871

#### 11. RECOVERABLE RATE DEFICIT (CRC)

By means of an agreement on August 4, 1994, the remaining balance of the CRC account (as discussed in Note 5) was negotiated with the Paraná State Government to be reimbursed in 240 monthly installments, updated by the variation of IGP-DI and interest of 6.65% annually. On October 1, 1997 the balance of R\$ 506,692 was renegotiated extending the term to 330 equal monthly installments, which include interest and principal amortization, with the last monthly installment to be due on October 30, 2025. The remaining clauses of the original contract, including interest rates, were maintained.

#### 12. LONG-TERM RECEIVABLES AND OTHER

December 31,	
1998	1997
13,621	22,846
23,736	1,180
8,089	4,985
4,174	3,627
5,655	505
55,275	33,143
	1998 13,621 23,736 8,089 4,174 5,655

The Company had a past-due receivable related to energy supplied in 1993 and 1994, to Companhia de Saneamento do Paraná-SANEPAR (a company controlled by the State of Paraná Government). On January 30, 1996 COPEL and SANEPAR signed an agreement renegotiating the amounts past due to be paid, monetarily restated by IGP-DI plus 6.65% annually, in 60 monthly installments, starting on June 30, 1996. The current portion of this receivable, in the amount of R\$9,596 as of December 31, 1998 (R\$9,330 as of December 31, 1997), is included in current assets as other accounts receivable.

The tax incentives refer to credits originated from 1996 to 1998, net of provision for market value, when applicable.

#### 13. INVESTMENTS

	December 31,	
	1998	1997
Investments in other companies:		
Companhia Paranaense de Gás - Compagás	9,199	735
Sercomtel S/A – Telecomunicações	153,447	-
Sercomtel Celular S/A	21,369	-
Dominó Holdings S/A	37,662	-
	221,677	735
Assets for future use	16,985	16,904
Initial costs related to new generating plants	-	52,718
Tax incentive investments and other	26,315	23,866
	264,977	94,223

#### a. Investments in Other Companies

On May 15, 1998, Copel acquired 45% of Sercomtel S/A - Telecomunicações total shares and 45% of Sercomtel Celular S/A total shares, both public telecommunication companies for the municipalities of Londrina and Tamarana, in the state of Paraná. The total amount paid for both companies was R\$186,486, resulting in total goodwill of R\$48,103, which will be amortized over 10 years, based on the expected future return generated by the investments.

In December, 31, 1998 the relevant investments in other companies accounted for under the equity method of accounting, were as follow:

		Sercomtel S/A	Sercomtel
	Compagás	Telecom	Celular S/A
Investees' shareholders' equity	18,038	253,009	35,331
% of participation	51%	45%	45%
	9,199	113,854	15,899
Total goodwill paid	-	42,289	5,814
Goodwill amortization	-	(2,696)	(344)
Total investment balances	9,199	153,447	21,369
Investees' net income (loss) for the year	-	(20,471)	1,292
% of participation	-	45%	45%
Equity in results of investees	-	(9,212)	581

Additionally, as of December 1<sup>st</sup>, 1998 Copel had 15% of Domino Holdings S/A, which is recorded at acquisition cost. On June 8, 1998, Dominó Holdings S/A acquired 39.71% of total shareholders' equity of the Companhia de Saneamento do Paraná - SANEPAR.

# b. Initial Costs Related to New Generating Plants

On January 1<sup>st</sup> 1998, in accordance with Resolution ANEEL No. 001/97, the initial costs related to new generating plants were reclassified from investment to construction work in progress. The Company believes the projects for new generating plants, for which initial costs were incurred on studies, will be transferred to construction work in progress after approval by the Department of Energy.

# 14. PROPERTY, PLANT AND EQUIPMENT

		1998		1997
	Monetarily Restated	Accumulated		
	Cost	<b>Depreciation</b>	Net	Net
In service:				
Restated cost-				
Generation	3,120,921	(979,288)	2,141,633	2,566,958
Transmission	717,544	(243,216)	474,328	512,032
Distribution	2,458,652	(857,081)	1,601,571	1,873,852
Administration	218,667	(63,080)	155,587	372,559
	6,515,784	(2,142,665)	4,373,119	5,325,401
Construction work in		· -		
progress:				
Generation	1,353,711	-	1,353,711	838,481
Transmission	155,291	-	155,291	46,261
Distribution	152,719	-	152,719	172,712
Administration	54,758	-	54,758	39,273
	1,716,479	-	1,716,479	1,096,727
	8,232,263	(2,142,665)	6,089,598	6,422,128

As from January,  $1^{\rm st}$ , 1998, Copel adopted the new depreciation rates in accordance with Resolution ANEEL No. 002, of December 24, 1997. The main new depreciation rates are as follow:

Gener	ation
Gener	ation

Equipment	10.0%
Water intake equipment	3.7%
Water intake structure	4.0%
Reservoirs, dams and water mains	2.0%
Hydraulic engines	2.5%
Transmission	
Conductor system	3.3%
Equipment	10.0%
System structure	3.3%
Re-connectors	4.3%
Distribution	
Capacitors	6.7%
Distribution switches	6.7%
Conductor system	5.0%
System structure	5.0%
Voltage regulators	4.8%
Voltage transformers	5.0%

In 1997, the depreciation rates were: thermoelectric generation - 5%, hydroelectric generation - 3%, transmission - 3% and distribution - 4%.

In 1998, the Company reverted the special monetary restatement (Law  $n^{\circ}$  8,200/91) retroactively to January  $1^{st}$ , 1998 (see Note 4.c), for which annual depreciation was R\$54,335in 1997.

#### a. Construction Work in Progress - Hydroelectric Plant

Presently, COPEL has the project of Salto Caxias under construction to increase its installed generation capacity, as follows:

Location - river	Iguaçu
Planned capacity	1,240 MW
Number of generating units	4 engines
Construction began in	Apr/94
First unit in operation	Feb/99
Estimated last unit in operation	Nov/99

	December 31,	
	1998	1997
Accumulated cost	1,202,088	751,352
Remuneration of own capital	(63,878)	(48,710)
Remuneration of third- party loans applied to		
construction (see Note 3.a (i.1))	(127,086)	(61,795)
Accumulated cost, net	1,011,124	640,847

#### b. Assets related with the concessions

In accordance with Articles 63 and 64 of the Decree No. 41.019, of February 26, 1957, the assets used in the generation, transmission, distribution and selling of electric energy cannot be retired, disposed of, transferred, sold or given by mortgage guarantee without ANEEL's authorization.

#### c. Expropriation

Certain properties required for the implementation of the Company's projects, specifically those necessary for the construction of dams and transmission lines, have been expropriated pursuant to specific legislation and are subject to compensation, negotiations and settlement with their prior owners. Because of the difficulty in arriving at precise cost estimates and the time required to obtain court decisions when out-of-court negotiations are unsuccessful, the cost of each is determined only at the end of the expropriation process and is then capitalized as part of property, plant and equipment.

# 15. SUPPLIERS

	December 31,		
	1998	1997	
Electricity suppliers:			
Eletrosul – Billed	40,486	29,281	
Supplies and services			
Billed	5,767	11,057	
Unbilled	7,471	8,650	
•	13,238	19,707	
•	53,724	48,988	

#### 16. LOANS AND FINANCING

	December 31,				
	1998			1997	
	Current	portion			
	D. t t l	Accrued Interest	Long Term	T-4-1	T-4-1
EODELCAL CURRENCY.	Principal	and fees	Principal	Total	Total
FOREIGN CURRENCY:		9 005	101 205	104 200	170 997
Eurobonds (1)	11.070	2,995	181,305	184,300	170,227
IDB (2)	11,070	4,101	127,997	143,168	135,630
Euro-Commercial Paper Program (3)	60,435	437	70.051	60,872	125,144
National Treasury Department	163	3,258	76,051	79,472	73,144
(see note16.e)	_	_	_	_	18,537
Banco do Brasil S.A (5)	1,693	483	27,503	29,679	16,168
Eletrobrás (6)	2,872	-	12,054	14,926	4,470
Subtotal	76,233	11,274	424,910	512,417	543,320
LOCAL CURRENCY:		<del></del>	·		<u> </u>
Eletrobrás (6)	23,483	250	360,664	384,397	277,110
Debentures (7)	-	_	-	_	160,578
BNDES (8)	4,095	145	24,568	28,808	31,176
Banco do Estado do Paraná S.A					
Turnkey (9)	8,153	154	23,713	32,020	27,285
Banco do Brasil S.A. (10)	8,270	110	8,960	17,340	25,177
HSBC Bamerindus S.A. (11)	7,525	110	9,861	17,496	23,783
FINEP (12)	1,164	37	13,092	14,293	7,476
Other commercial banks (13)	5,872	74	12,086	18,032	23,932
Subtotal	58,562	880	452,944	512,386	576,517
Turnkey suppliers - Transmission	_				-
plant (14)	26,190	-	39,286	65,476	-
	160,985	12,154	917,140	1,090,279	1,119,837

- (1) EUROBONDS Consists of Eurobonds Notes issued on May 2, 1997, with maturity in May 2, 2005. The equivalent value is US\$150 million, with interest of 9.75% annually paid semi-annually, starting on November 2, 1997. The amount is subject to early settlement in 2002, at the option of COPEL or of the investors.
- (2) IDB (Inter-American Development Bank) Consists of a loan for the Segredo hydroelectric power plant and Rio Jordão deviation project, guaranteed by the Federal Government which as of January 15, 1991 amounted to US\$135 million (R\$140 million). The first payment of principal was due in January 15, 1997, interest and principal payments are due semi-annually up to 2011 and interest is calculated according to a rate determined by the institution each year. On December 31, 1998 such rate was 6.68% per annum (6.59% in December 31, 1997).
- (3) Euro-Commercial Paper Program short term (up to 365 days) non-guaranteed bearer notes issued outside Brazil to finance working capital. COPEL established this Euro-Commercial Paper Program on March 16, 1995, under which it currently has one tranch outstanding which was renegotiated to mature in June 7, 1999, with interest of 9.5% annually.

- (4) Unibanco Consists of a US\$15 million loan as of January 25, 1995 through Resolution 63 for financing working capital with a 22% per annum interest rate and semi-annual payments. The principal was paid in one installment on January 9, 1998.
- (5) Banco do Brasil S.A. Consists of a loan in Japanese Yen for the gas thermoelectric substation of the Salto Caxias plant, with amortization in 20 semi-annual installments, beginning on March 7, 2000 and interest of 2.8% per annum.
- (6) Eletrobrás Consists of loans from Eletrobrás originating from resources obtained from the FINEL, for the expansion of generation, transmission and distribution lines. Amortization started on June 30, 1996 and will end in August, 2021. Interest and principal are due on a monthly basis and interest is based upon the FINEL (Eletrobrás financing rate), which was 6.5% in 1998 and 1997. These loans are guaranteed by COPEL's own revenues.
- (7) DEBENTURES Consists of issuance of 15,000 non-convertible debentures with a face value of R\$10,000 each, at the publication date in November 1, 1997. The public issuance occurred on January 17, 1997 and was paid in one installment in May 1, 1998, with interest based on TJLP plus 6% annually.
- (8) BNDES Consists of a loan with 99 installments, starting on October 15, 1997, with TJLP plus 6% annual interest rate, used to finance the Rio Jordão deviation project (Segredo Electric Power Plant).
- (9) Banco do Estado do Paraná S.A Turnkey Suppliers Consists of several contracts (18) from September 2, 1996 with 48 monthly installments (principal + interest) starting on July 15, 1997. The interest rate is based upon the TJLP (long-term interest rate) plus a floating spread between 3.5% to 6% per annum. The loan was used to finance the electricity distribution network and is guaranteed by COPEL's own revenues.
- (10) Banco do Brasil Consists primarily of FINAME (machinery and equipment financing) as of November 26, 1991 for a 7-year period with payments starting on February 9, 1994 and interest at 11% and 12% per annum, depending on the contract, all collateralized by chattel mortgages. The remaining balance consists of a "Debt Refinancing Agreement" with Banco do Brasil S.A., as the financial agent for the Federal Government.
- (11) HSBC Bamerindus S/A Consists of a loan through FINAME (machinery and equipment financing) to build the Segredo Hydroelectric Power Plant dated October 10, 1991 with 84 monthly installments starting on December 9, 1993. Interest ranges between TJLP plus 11% and 12% per annum.
- (12) FINEP Consists of a loan dated September 13, 1996, to finance the Company's laboratory equipment. Interest and principal payments are due in 49 monthly installments, beginning on September 15, 1998, with interests of TJLP plus 12% per annum.
- (13) Other commercial banks Consists of several Brazilian financing institutions; all loans were used to finance the acquisition of electrical components. The interest is based on TJLP plus 6% and 8.5% per annum, with monthly payments.
- (14) Suppliers Turnkey Transmission Consists of agreements with suppliers, amortized in 5 semi-annual installments beginning on February 11, 1999, without interest and restated by the variation of the U.S. dollar, to expand the transmission system.
  - a. Composition of Foreign Currency Loans by Currency:

Equivalent in R\$		
1998	1997	
340,393	404,300	
28,856	3,390	
143,168	135,630	
512,417	543,320	
	1998 340,393 28,856 143,168	

b. Variations in the principal currencies used in the Company's loans and financing in relation to the Brazilian currency were as follows:

_	Year Ended December 31,			
	% change (rounded)			
	1998	1997		
U.S. dollars	8.27	7.41		
Japanese Yen	25.27	(4.18)		
Currency pool	4.74	(5.28)		

See Note 33 for discussion of the devaluation of the Brazilian real subsequent to December 31, 1998.

c. Main Index Loan Rates Applied to Local Currency Debt

Rates as of December 31, (annual %)	
1998	1997
7.76	9.31
11.84	10.27
1.78	7.74
1.70	7.48
1.65	5.52
	(annual 1998 7.76 11.84 1.78 1.70

# d. Maturity of the Principal of Long-term Loans and Financing

December 31,

		1997			
	Turnkey		Foreign	·	
	Suppliers	Total	Currency	Total	Total
1999	-	-	-	-	66,584
2000	26,190	63,523	18,394	108,107	66,436
2001	13,096	49,753	19,113	81,962	51,247
2002	-	44,919	19,186	64,105	44,045
2003	-	34,652	17,960	52,612	36,238
2004	-	27,502	19,119	46,621	34,522
2005	-	26,951	200,424	227,375	201,774
2006	-	22,130	18,469	40,599	29,173
2007	-	22,092	17,818	39,910	28,572
After 2007	-	161,422	94,427	255,849	185,523
	39,286	452,944	424,910	917,140	744,114

# e. National Treasury Department

The loans and financing debt, identified as National Treasury Department, which terms and payment conditions were restructured as part of the Brazilian foreign debt, according to Law 4.131/62, in the context of the Brady Plan, are as follows:

	Maturity	Year in which amortization	Amortization	Decen	aber, 31
Bond type	(years)	begins	(in installments)	1998	1997
Par Bond (1)	30	-	One payment at maturity	19,261	17,779
Capitalization Bond (2)	20	2.004	21 semi-annual	15,882	14,270
Debt Conversion Bond (3)	18	2.004	17 semi-annual	15,629	14,435
Discount Bond (4)	30	-	One payment at maturity	13,474	12,445
EI-Bond (Interest Bonds) (4)	12	1.997	19 semi-annual	7,918	7,467
New Money Bonds (3)	15	2.001	17 semi-annual	4,121	3,807
FLIRB (5)	15	2.003	13 semi-annual	3,187	2,941
Total				79,472	73,144

The annual interest rates are as follows:

- (1). From 4% in the first year to 6% at the end of period.
- (2). From 4% in the first year to 8% at the end of period.
- (3).Libor + 7/8%
- (4).Libor + 13/16%
- (5). From 4% in the first year to Libor +13/16% until the maturity.

"Discount Bond" and "Par Bond" are guaranteed by collateral deposits in the amounts of R\$3,335 and R\$4,754, respectively, totaling R\$8,089 as of December 31, 1998 (see Note 12).

#### 17. REGULATORY CHARGES

	December 31,		
	1998	1997	
Global reserve for reversion quota - RGR	18,259	7,677	
Fuel usage quota – CCC	1,923	2,866	
Compensation for land usage	2,888	3,482	
ANEEL inspection fare	443	-	
	23,513	14,025	

#### a. Global Reserve for Reversion Quota - RGR

The global reserve for reversion quota (the "RGR Fund") was established as a fund managed by Eletrobrás, as an agent for the Federal Government, for the purposes of reversion of electricity companies' investments when their concession periods expire. It was calculated, after January 3, 1996, as 2.5% of assets in service, limited to 3% of total operating revenues net of value-added tax on sales to final customers. ELETROBRÁS is authorized to provide financing to concessionaires based on the amount contributed to the reserve.

# b. Fuel Usage Quota - CCC

The fuel usage quota represents contributions made by the electric concessionaires to finance the cost of fuel used in the thermoelectric energy generating process in the Brazilian energy system.

# c. Compensation for Land Usage

Compensation for land usage represents payment to states and municipalities for expropriation of land for plant construction.

#### 18. ADVANCE BILLING OF ELECTRIC POWER

Refers to pre-sale of energy to industrial consumers in accordance with Portaria DNAEE No. 173, of September 1989. These obligations are subject to monetary restatement based on the highest of TR (Brazilian Reference Interest Rate) or the average Company's tariff variation. The repayment is due in periods from 18 to 120 months and is offset against the monthly customers' bills.

#### 19. OTHER TAXES

	December 31,	
	1998	1997
Financing of taxes	9,946	20,146
COFINS	-	28,632
Judicial deposits-		
COFINS	-	60,775
PASEP	45,880	30,873
Social contribution for third parties (INSS)	-	588
Social contribution – 1989	-	17,977
	55,826	158,991

The Company is party to lawsuits in which it is questioning the legality or constitutionality of certain taxes and contributions assessed against it. The Company has suspended making payments of these taxes and contributions, but it has fully accrued the amounts as contingent liabilities at each balance sheet date as follows:

- (i) PIS/PASEP According to legislation, Brazilian companies are required to pay contributions either to the PIS Program (Program for Social Integration) or to the PASEP Program (Program for the Establishment of Public Employee's Patrimony), depending on its classification as privately or Government-owned, respectively. Being a mixed-capital corporation, and based on the Brazilian Constitution, which provides that public service concessionaires should be treated as private sector companies for tax purposes, the Company believes that it should contribute to the PIS Program, although the Federal Government has stated that it should contribute to the PASEP Program. The rates and basis for calculation of such contributions have changed over time and differ from one another, resulting in significant differences in the final amounts due. The matter is pending before a Federal trial court and an accrual has been recorded, amounting to R\$ 45,880 as of December 31, 1998 (R\$30,873 as of December 31, 1997).
- (ii) FINSOCIAL and COFINS Contributions The contributions to the FINSOCIAL Program (a program for financing of public assistance activities) were calculated based on the Company's operating revenues. Its rate increased over time from 0.5% to 2.0% until such contribution was terminated in 1991. The COFINS contribution was introduced immediately after the discontinuation of the FINSOCIAL contribution and has the purpose of financing social security. The Company claims that these contributions violate the Brazilian Constitution, which provides that electric utility companies are subject only to income tax, value-added tax and taxes on imports and exports. For its exposure in these matters, as of December 31, 1997, the Company had provided the amount of R\$89,407 for both programs, classified as a long-term liability other taxes. Also, the Company had made a partial judicial deposit to an escrow account of R\$60,775 in relation to this matter.

In 1998, the Company won its claim related to COFINS. The effect in the income statement, due to the reversion of the provision, was R\$95,084, with R\$89,407, related to prior years, classified as non-operating expenses and R\$5,667, related to judicial deposit monetary variation, classified as financial income.

(iii) Social Contribution Tax due in 1989 – Until 1992, the Social Contribution law did not recognize the negative tax basis accumulated since 1989, when the law was enacted. The Company has offset the negative tax basis computed in 1989 with social contribution payable in subsequent years, which was under legal dispute with tax authorities. The Company had estimated that its maximum exposure in this matter would be approximately R\$17,977, which in December 31, 1997, was provided on the balance sheet, classified as long-term liability other taxes, and also the Company had judicial deposits in an escrow account for this amount. In 1998, the claim was ruled against the Company, and the provision was offset against the judicial deposit balance.

# 20. DEFERRED INCOME TAXES AND PROVISION FOR INCOME TAX AND SOCIAL CONTRIBUTION TAX

#### a. Deferred Income Taxes

The tax effect of temporary differences that generated deferred tax assets (liabilities) was as follows:

	December 31,		
	1998	1997	
Deferred tax assets:			
Allowance for doubtful accounts	3,603	1,461	
Provision for slow moving inventories	898	939	
Provision for pension plan deficit	150,682	9,453	
Provision for tax contingencies	11,622	31,340	
Provision for other contingencies	5,108	4,032	
- -	171,913	47,225	
Deferred tax liability - long-term:			
Income and social contribution taxes on			
Special Monetary Correction (Law 8200/91)			
•	-	216,544	
Provision for income tax on price-level effects			
•	213,439	245,573	
_	213,439	462,117	

Beginning in 1996, due to Law No. 9, 249/95, the tax law no longer recognizes the effects of inflation in the statutory financial statements. The provision for deferred income tax on price-level effects was computed by comparing the increases in assets and liabilities due to restatement for accounting purposes to tax bases, which are no longer indexed for inflation under that tax law.

The special monetary restatement, which was recorded as an increase in fixed assets and equity, is not tax deductible. The deferred tax liability related to this item was recorded as an offset to equity. Since the Company reverted the Special Monetary Correction (Law 8,200/91), the deferred income tax and social contribution taxes on such item was also reverted.

# b. Provision for Income Tax and Social Contribution Tax:

Income taxes at statutory rates are reconciled to the amount reported as income tax expense in these financial statements as follows:

	Year Ended December 31,		
_			
-	1998	1997	1996
Income before taxes	478,484	404,522	330,029
Statutory income tax rate (see Note 3.b(v))	33%	33%	30.56%
Income tax computed based on statutory rate	157,900	133,492	100,857
Income tax effects on:			
Employees participation	(4,620)	(8,085)	(6,143)
Interest on capital (Note 23.d)	(44,946)	(49,500)	(31,399)
Remuneration on construction work in progress	(20,032)	-	-
Tax incentives	(2,594)	(1,502)	-
Equity pick-up in investees	2,848	-	-
Effects of changes in tax rates	-	-	(1,650)
Other	1,438	(1,071)	(3,019)
	89,994	73,334	58,646

Income tax returns of the Company are subject to review by the tax authorities for a period of five years from the filing date. In that event, the Company may be subject to the assessment of additional taxes, fines and interest as a result of such review.

# 21. OTHER LIABILITIES

	December 31,		
_	1998	1997	
Financing of RGR and other	10,637	8,907	
Contingencies with:			
Customers - rate litigation	9,867	8,505	
Contractors (civil litigation)	43,541	43,541	
Land expropriation	4,221	4,221	
Labor	9,870	969	
	78,136	66,143	

The Company is party to certain lawsuits and administrative proceedings before various courts involving environmental, tax, civil and labor matters. The principal lawsuits currently in process are as follows:

# a. Customers – rate litigation

A number of industrial consumers have brought suits against the Company seeking refunds of amounts paid to COPEL as a result of a rate increase that became effective during the Brazilian government's "Cruzado Plan" in 1986, in accordance with Portarias DNAEE Nos. 38 and 45, alleging that such increases were in violation of price controls instituted as part of that economic stabilization plan. COPEL's management is unable to predict the ultimate outcome of these proceedings but has established a reserve in

the amount of R\$9,867 as of December 31, 1998 (R\$8,505 as of December 31, 1997). Such amount was calculated based on the amount actually paid by the consumers and under dispute.

# b. Civil Litigation

The Company is party to other lawsuits and administrative proceedings before various courts arising from the ordinary course of business involving environmental, tax, civil and labor matters. The Company believes that the ultimate effect of these proceedings will not have a material impact on its financial position or results of operations, except for the potential indemnity to contractors related to the construction of Segredo Hydroelectric power plant. The accrual for this indemnity in litigation amounts to R\$43,541 and is provided in an amount that represents the probable contingency that could be awarded to the plaintiff, partially deposited in an escrow account in the amount of R\$18,528 as of December 31, 1998, as determined by the Judicial Court overseeing such litigation. The Company's management believes that any loss in excess of the amount accrued will not have a material adverse impact on the Company's results of operations on liquidity.

#### 22. SPECIAL LIABILITIES

	December 31,		
	1998	1997	
Consumers' contribution	577,437	734,702	
Other	9,295	12,572	
-	586,732	747,274	

Consumers' contributions consist of assets provided to COPEL by the Federal Government and by certain residential, rural and industrial customers, to facilitate connection or in case of low return on the investment by the Company. The liquidation of these special liabilities will occur at the term of the concession, as determined by the Department of Energy. The balances are subject to monetary restatement using the same index used to restate property, plant and equipment.

# 23. SHAREHOLDERS' EQUITY

### a. Capital Stock

Capital stock represents statutory paid-in capital of R\$ 1,225,351 and monetarily restated paid-in capital of R\$1,339,732 as of December 31, 1998.

As of December 31, 1998, the composition of capital stock by type of shares and the principal shareholders is as follows:

			(Thous	ands of shares)			
			Pı	eferred			
Common	%	A	%	В	%	Total	%
85,028,464	58.6	-	-	=	-	85,028,464	31.1
134	0.0	-	-	-	-	134	0.0
1,530,775	1.1	-	-	13,867,370	10.8	15,398,145	5.6
38,298,775	26.4	-	-	10,754,557	8.4	49,053,332	17.9
18,180,610	12.5	215,370	33.6	103,360,004	80.8	121,755,984	44.5
1,992,323	1.4	425,579	66.4	1,415	0.0	2,419,317	0.9
145,031,081	100.0	640,949	100.0	127,983,34	100.0	273,655,376	100.0
	85,028,464 134 1,530,775 38,298,775 18,180,610 1,992,323	85,028,464 58.6 134 0.0 1,530,775 1.1 38,298,775 26.4 18,180,610 12.5 1,992,323 1.4	85,028,464     58.6       134     0.0       1,530,775     1.1       38,298,775     26.4       18,180,610     12.5       1,992,323     1.4       425,579	Common         %         A         %           85,028,464         58.6         -         -           134         0.0         -         -           1,530,775         1.1         -         -           38,298,775         26.4         -         -           18,180,610         12.5         215,370         33.6           1,992,323         1.4         425,579         66.4	Common         %         A         %         B           85,028,464         58.6         -         -         -           134         0.0         -         -         -           1,530,775         1.1         -         -         13,867,370           38,298,775         26.4         -         -         10,754,557           18,180,610         12.5         215,370         33.6         103,360,004           1,992,323         1.4         425,579         66.4         1,415	Common         %         A         %         B         %           85,028,464         58.6         -         -         -         -         -           134         0.0         -         -         -         -         -           1,530,775         1.1         -         -         13,867,370         10.8           38,298,775         26.4         -         -         10,754,557         8.4           18,180,610         12.5         215,370         33.6         103,360,004         80.8           1,992,323         1.4         425,579         66.4         1,415         0.0	Common         %         A         %         B         %         Total           85,028,464         58.6         -         -         -         -         85,028,464           134         0.0         -         -         -         -         134           1,530,775         1.1         -         -         13,867,370         10.8         15,398,145           38,298,775         26.4         -         -         10,754,557         8.4         49,053,332           18,180,610         12.5         215,370         33.6         103,360,004         80.8         121,755,984           1,992,323         1.4         425,579         66.4         1,415         0.0         2,419,317

The preferred shares "A" do not have any voting rights, however, they have priority in the reimbursement of capital and the right to dividend payments of 10% per annum, or proportionally computed based on the outstanding period of holding such shares during the year, non-cumulative, calculated on capital stock at the balance sheet date.

The preferred shares "B" also do not have any voting rights and have priority to receive annual dividends in relation to common shares, after the priority of payments to preferred shares "A". The minimum dividends to preferred shares "B" are computed based on 25% of net income adjusted as prescribed by Corporate Law and the Company's by-laws

#### a(i). Increase in capital stock

On July 30, 1997, the Company increased its capital stock through the public issuance of 31,944,444 thousands of Preferred B shares, without par-value, amounting to R\$637,545 (US\$575,000, based on the U.S. dollar commercial market exchange rate in force July 29, 1997, reported by Central Bank of Brazil), in a "Combined Offering" represented by a global offering, with simultaneous distribution in Brazil and abroad, as follows:

U.S. Offering	20,433,544	American Depositary Shares (ADSs)
International Offering	5,422,300	American Depositary Shares (ADSs)
Brazilian Offering	6,088,600	Thousands of Class B Shares
	31,944,444	_

Each ADS is represented by 1,000 Class B Shares and evidenced by American Depositary Receipts (ADRs).

The public offering price was US\$18.00 per ADS in the Combined Offering. The offering price for Brazil was R\$19.59 per 1,000 Class B shares, which is the approximate equivalent amount in reais of the offering price per ADS in the Combined offering, based on the U.S. dollar commercial market rate in effect on July 29, 1997.

The Preferred Class B Shares representing the ADSs have been deposited with the Bank of New York, as depositary of the program, through Banco Itaú S.A. (a Brazilian Bank), the custodian agent for the

depositary.

## b. Capital Reserves

_	December 31,			
	1998	1997	1996	
Optional Monetary Restatement - Law No. 8,200 (see Note 4).	-	740,770	740,770	
Remuneration on construction work in progress	454,697	451,296	421,026	
Contributions and grants for investments	276,918	276,918	276,918	
Recovery of rate deficit CRC Account	1,299,504	1,299,504	1,299,504	
Other	230,825	216,819	216,819	
	2,261,944	2,985,307	2,955,037	

Remuneration on construction work in progress is the credit resulting from the capitalization of the allowance for remuneration of funds used during construction applied to construction work in progress and may be used only for capital increase.

#### c. Income Reserves

	December 31,			
	1998	1997	1996	
Legal reserve	108,668	88,505	73,377	
Statutory reserve	-	65,719	65,719	
Unrealized earnings	326,479	576,152	815,136	
Investments reserve	840,999	383,729	119,799	
	1,276,146	1,114,105	1,074,031	

The legal reserve is computed based on 5% of net income by Corporate Law method until it reaches 20% of capital stock. This reserve can be only used to increase capital stock or to offset accumulated deficits.

The unrealized earnings reserve results from the net balance of monetary restatement credited to income in the statutory accounts. This reserve is realized in proportion to the depreciation and amortization of property, plant and equipment and deferred charges. Upon realization, the related amount is transferred to retained earnings and included in the basis for dividend computation. During 1998 and 1997 the Company opted for realizing a larger amount (R\$35,485 in 1998 and R\$210,070 in 1997) than the proportion related to the depreciation and amortization, as permitted by Corporate Law.

## d. Dividends and Interest on Capital

In accordance with the Company's by-laws, dividends are distributable annually and computed based on net income for the year determined under the Corporate Law method, after the adjustments required by such law, allocated in the following order:

- 1. A portion transferred to a legal reserve (see item (c) above).
- 2. Reversal of unrealized earnings (see item (c) above);
- 3. Dividends on preferred shares, allocated proportionally based on the amount in Brazilian reais of the corresponding statutory paid-in capital.
- 4. Dividends on common shares, computed as prescribed by corporate law and the Company's charter as a minimum 25% of net income for the year.

Article No. 9 of Law 9,249 dated December 26, 1995, allowed the deductibility for income tax purposes of interest on capital paid to shareholders, provided such interest is computed based on the TJLP rate, effective in the year the interest on capital is computed.

Also as allowed by the CVM, the Company elected to pay interest on capital in the amount of R\$136,200 as of December 31, 1998 (R\$150,000 and R\$116,857 respectively as of December 31, 1997 and 1996), instead of dividends for the year.

The composition of such interest on capital, is as follows:

	Amounts in accordance with Corporate Law		
	1998	1997	1996
Net income	403,265	302,568	202,366
Tax effects on COPEL due to the option of paying Interest on capital	(44,946)	(49,500)	(29,214)
Net income without tax effects of interest on capital	358,319	253,068	173,152
Legal reserve (5%) computed over net income above	(17,916)	(12,653)	(8,658)
Reversal of unrealized earnings	64,400	238,985	36,148
Reversal of special monetary correction – Law 8.200/91	237,995	-	-
Prior year adjustments (Fundação Copel - see Note 29)	(302, 395)	-	-
Basis for dividend computation	340,403	479,400	200,642
Minimum dividends (25%)	85,101	119,850	50,161
Income tax withheld on interest on capital-effective (1)			
	14,349	11,447	8,107
Minimum dividend value adjusted, computed			
considering the effect of income tax withholding.	99,450	131,297	58,268
Excess over minimum dividend	36,750	18,703	58,589
Appropriated remuneration on capital	136,200	150,000	116,857

<sup>(1)</sup> On the portion of interest distributed to exempt shareholders, income tax withholding is not applicable.

The amount of R\$74,627 was prepaid for interest on capital on December 10, 1997.

e. The composition of Shareholders' equity as per official books, were as follows:

	December 31,			
	1998	1997	1996	
Capital stock	1,225,351	1,169,126	546,848	
Capital reserves	1,927,099	2,531,877	2,502,701	
Income reserves	1,293,693	1,146,663	994,095	
	4,446,143	4,847,666	4,043,644	
Credits for capital increase	12,778	12,778	12,778	
	4,458,921	4,860,444	4,056,422	

# 24. OPERATING REVENUES

# a. Electricity Sales to Final Customers

# Year Ended December 31,

	Numbe	r of Consume	ers				Revenues	- R\$ in thous	ands
	(unaudited)			Quantities -MWh (unaudited)					
	1998	1997	1996	1998	1997	1996	1998	1997	1996
Industrial	42,008	40,857	38,492	5,932,110	5,641,107	5,364,540	485,297	473,261	460,212
Residential	2,096,262	2,023,102	1,956,109	4,184,705	3,949,060	3,779,977	713,953	633,076	560,653
Commercial	230,366	225,650	218,404	2,268,418	2,111,329	1,949,492	331,959	303,943	287,604
Rural and other	306,342	296,257	290,917	2,140,733	2,072,918	1,967,910	186,728	179,373	166,405
Public services	3,014	2,838	2,787	479,629	455,719	441,376	41,715	39,126	38,374
	2,677,992	2,588,704	2,506,709	15,005,595	14,230,133	13,503,295	1,759,652	1,628,779	1,513,248

# b. Electricity Sales to Distributors

# Year Ended December 31,

_	Volume consumption-MWh (unaudited)			G (R:		
_	1998	1997	1996	1998	1997	1996
Energy (MWh):						
Distributors	1,035,697	2,560,444	2,807,116	31,890	62,300	69,707
Electricity system optimization						
	5,549,867	2,684,149	6,188,635	25,959	18,109	30,236
	6,585,564	5,244,593	8,995,751	57,849	80,409	99,943

# c. Value-added taxes on sales to final customers

# Year Ended December 31,

	1998	1997	1996		
ICMS	415,164	383,235	358,076		
COFINS (Note 19 (ii))	-	34,691	27,378		
PASEP	12,103	11,146	9,468		
	427,267	429,072	394,922		

# 25. OPERATING EXPENSES

# a. Purchased Energy

# Year Ended December 31,

-	Quantities – MWh (Unaudited)			Purchase cost (R\$ in thousands)		
	1998	1997	1996	1998	1997	1996
Energy (MWh):						
From Eletrosul (ITAIPU)	5,301,935	5,409,629	4,976,135	196,512	182,746	175,273
From other	26,611	11,537	8,579	569	1,616	322
- -	5,328,546	5,421,166	4,984,714	197,081	184,362	175,595

# b. Regulatory Charges

	Year Ended December 31,			
	1998	1997	1996	
Global reserve for reversion quota – RGR	41,790	33,730	35,422	
Fuel usage quota - CCC	39,851	38,017	30,048	
Compensation for land usage	20,424	16,427	20,237	
ANEEL inspection fare	5,311	-	-	
	107,376	88,174	85,707	

# c. Other Expenses (Income)

	Year Ended December 31,			
	1998	1997	1996	
Cost of operating services	3,063	10,774	22,552	
Insurance	1,509	1,142	1,651	
Rentals	17,551	13,537	13,506	
Accruals for legal contingencies	-	-	4,961	
Meal benefits to employees	-	-	14,232	
Provision for doubtful accounts	6,602	622	8,108	
General expenses	9,156	9,503	9,731	
Recovery of expenses	(12,639)	(19,324)	(12,401)	
	25,242	16,254	62,340	

# 26. FINANCIAL INCOME (EXPENSES), NET

	Year Ended December 31,			
	1998	1997	1996	
Financial Income:				
Income on temporary cash investments	109,957	90,813	13,790	
Charges on overdue receivables	19,665	13,207	34,031	
Charges on long-term receivables and CRC account	37,987	35,246	33,820	
	167,609	139,266	81,641	
Interest on loans and financing	(8,189)	(47,400)	(57,870)	
Monetary variation, exchange gains and losses and other	(36,363)	41,753	48,930	
	93,057	133,619	72,701	

# 27. OTHER NONOPERATING (INCOME) EXPENSES, NET

rear Ended December 31,			
1998	1997	1996	
89,407			
(8,498)	(2,277)	(4,241)	
(29,293)	(21,928)	(19,206)	
51,616	(24,205)	(23,447)	
	1998 89,407 (8,498) (29,293)	1998     1997       89,407     -       (8,498)     (2,277)       (29,293)     (21,928)	

Voor Ended December 21

#### 28. EMPLOYEES PARTICIPATION IN NET INCOME

Starting in 1996, the Company adopted a program of participation of its employees in net income, provided certain previously agreed upon financial and operating measures are met. In 1998 the amount of this participation was R\$14,000 (R\$ 24,500 in 1997 and R\$ 20,189 in 1996) and will be paid to all employees proportionally to their monthly wages.

#### 29. PENSION PLAN AND OTHER BENEFITS TO EMPLOYEES

The Company sponsors pension plans, which are administered by a separate entity, Fundação COPEL. Contributions to the plans are made by both the sponsor and the participant beneficiaries, based on an actuarial study prepared by an independent actuary under the existing regulations prevailing in Brazil, as determined by the Social Security authorities, to provide sufficient funds to cover future cash requirements arising from the benefit obligations.

Up to December 31, 1997, the Company sponsored a "defined-benefit" pension plan, which was changed to a new "defined contribution" pension plan, as approved at the Shareholders Meeting of October 15, 1998, concluding negotiations formally started in 1997.

Due to the changes in the former pension plan, the participant rights have generated an obligation amounting to R\$468,253, which the Company agreed with Fundação COPEL to be paid in 240 monthly installments, beginning on February 1st, 1999, indexed based on INPC (National Consumer Price Index) plus interest of 6% annually, composed as follows:

	December 31, 1998
Obligation generated due to participant rights related to	
prior years through December 31, 1997	447,728
Obligation generated due to participant rights related to	
current year	20,525
Total obligation generated as of December 31, 1998	468,253

Based on CVM approval, the following effects were recorded in the financial statements:

As of and for
the year ended
December 31,
1998
11,640
456,613
468,253
302,395
3,841
141,492
447,728
20,525
468,253

The Company also accrued the deficit remaining after the impact of the above agreement, in the amount of R\$10,933 at December 31, 1998 (R\$35,433 in 1997).

Certain financial information pertaining to the fund is as follows:

	As of December 31,		
	1998	1997	
Current value of net assets	1,258,972	701,653	
Mathematical reserves			
(actuarial cash value of pension benefits):			
Vested benefits	914,128	663,251	
Nonvested benefits	355,777	147,506	
Reserves to be amortized	-	(73,671)	
	1,269,905	737,086	
Deficit	(10,933)	(35,433)	

Mathematical reserves represent the present value of future actuarial benefits, less the present value of projected future contributions to the plan, all discounted at an annual interest rate of 6%.

The contributions accrued during the years were charged as follows:

	Year Ended December 31,			
	1998	1997	1996	
Construction work in progress	3,603	1,574	8,031	
Operating expenses	62,108	30,855	28,920	
	65,711	32,429	36,951	

Due to the plan deficit as of December 31, 1995 (R\$109,017), in April and October 1996, the Company entered into agreements with the employees and Fundação COPEL to partially amortize such pension fund

deficit. As a result, the contributions paid by employees and by the Company were increased 10% as of April and 26.5% as of October 1996.

Additionally, the Company agreed to make additional contributions in the aggregated amount of R\$33,790 in 120 monthly installments, monetarily restated based on the INPC index plus interest at 8.5% per annum. Such amount was paid in advance in November 1997.

#### 30. RELATED-PARTY TRANSACTIONS

COPEL enters into a variety of related-party transactions, including the sale and purchase of electricity and certain financial transactions. Electricity sales are based on rates set by the Department of Energy. All other transactions are completed on an arms-length basis. Information about the relevant transactions between COPEL and its related parties is included in the following notes:

Related Party	Nature of Transaction	Notes
Government of the	Sale of electric energy, prepayment of ICMS	
State of Paraná	and CRC Account	9 and 11
SANEPAR	Long-term receivables	12
Eletrosul (Itaipu)	Purchase of electric energy for resale	15 and 25
Eletrobrás	Loans and financing	16
Banestado	Cash Equivalents and Loans and financing	7 and 16
Fundação Copel	Pension plans to employees	29
Sercomtel	Purchase and sale of telecommunication and	
	electric energy	13

#### 31. FINANCIAL INSTRUMENTS

Assets representing financial instruments realizable in periods less than 90 days are stated at market value.

Loans and financing in local and foreign currency are subject to rates, which approximate market conditions as shown in Note 16.

The liabilities for tax refinancing (see Note 19) are subject to charges as established in the respective legislation.

# 32. RECONCILIATION OF CORPORATE LAW STATUTORY FINANCIAL STATEMENTS AND PRICE-LEVEL ADJUSTED FIGURES

# a. Reconciliation of Shareholders' Equity

	1998	1997	1996
Under corporate law method	4,458,921	4,860,444	4,056,422
Price-level adjustment to December 31, 1997	-	-	303,296
<u> </u>	4,458,921	4,860,444	4,359,718
Price-level adjustments:			
Inflationary effects on permanent assets and special liabilities			
	646,911	779,364	473,962
Discount to present value of accounts receivable	-	(2,909)	(2,965)
Discount to present value of obligations	-	6,092	3,627
Restatement of materials and supplies	-	72	120
Income tax on inflationary effects	(213,439)	(245,573)	(144,861)
As reported in the accompanying Price-level adjusted			
financials	4,892,393	5,397,490	4,689,601
<del>=</del>			_,,,,,,,,
b. Reconciliation of Net Income			
b. Reconciliation of 1 vet income			
	1998	1997	1996
Under corporate law method	403,265	302,568	202,366
Price-level adjustment to December 31, 1997	-	-	14,501
11100 10 ( 01 44 44 45 110 110 110 110 110 110 110 110 110 11	403,265	302,568	217,499
Date level adjustments	100,200	002,000	217,100
<b>Price-level adjustments:</b> Inflationary effects on permanent assets and special liabilities			
initationary effects on permanent assets and special habilities	(36,845)	2,458	52,045
Discount to present value of accounts receivable	(30,643)	(2,909)	(2,965)
Discount to present value of obligations	-	6,092	$\frac{(2,303)}{3,627}$
Restatement of materials and supplies	-	72	120
Income tax on inflationary effects	11,325	(811)	(15,903)
Reversion of restatement of materials and supplies and	11,323	(011)	(13,303)
discount to present value of accounts receivable and			
obligations – prior years	(3,255)	(782)	(3,229)
As reported in the accompanying Price-level adjusted	(3,233)	(102)	(3,223)
financials	0=	202 522	044.40
111141111415	374,490	306,688	251,194

# 33. EVENTS SUBSEQUENT TO DECEMBER 31, 1998

a) Changes in Exchange Policies by the Central Bank of Brazil and the Devaluation of Brazilian Real

At the end of the first half of January 1999, the Brazilian Central Bank changed its exchange policy, discontinuing the so-called exchange band through which it controls the parity of local currency (Brazilian Reais) against the United States Dollar (US\$), allowing the market to freely negotiate the exchange rates.

Consequently, the Brazilian Real was significantly devalued in relation to the U.S. dollar, from R\$1.2087 as of December 31, 1998 to R\$1.6614 as of May 12, 1999.

The items affected by currency exchange rates, and the related balances as of December 31, 1998, are: loans and financing in foreign currency of US\$94.1 million equivalent to R\$113.7 million (short-term) and US\$384 million equivalent to R\$464.2 million (long-term); electric energy purchased from Itaipu which in 1998 amounted US\$144.8 million, equivalent to R\$175 million, and the balance due referring to electric energy suppliers — Itaipu in the amount of US\$33.5 million equivalent to R\$40.5 million.

# b) Company's Organizational Restructuring in Business Units

The Company, based on a decision of the Board of Directors and Shareholders Meeting held on January 1999, approved the organizational restructuring of COPEL in business units of generation, transmission, distribution, information technology and telecommunication activities. COPEL is starting legal proceedings to constitute individual companies as required by the new rules of the Brazilian electric energy sector.

# 34. SUMMARY AND RECONCILIATION OF THE DIFFERENCES BETWEEN BRAZILIAN AND U.S. GAAP

#### a. Description of the GAAP differences

COPEL's accounting policies comply with, and its financial statements are prepared in accordance with, generally accepted accounting principles in Brazil ("Brazilian GAAP"). Note 3 to the financial statements summarizes the accounting policies adopted by the Company. Accounting policies that differ significantly from generally accepted accounting principles in the United States of America ("US GAAP") are summarized as follows:

# a(i). Inflation Accounting Methodology and Indices

Until December 31, 1995, publicly traded companies were required to prepare financial statements under two methods: (ii) the corporate law method, valid for all legal purposes; and (ii) the constant currency method, prepared as price-level-adjusted financial statements. See detailed discussion of these methods in Note 2.

Effective January 1, 1996, new legislation eliminated such accounting for inflation. However, companies are still allowed to prepare financial statements under the constant currency method.

The inflation accounting adjustments required by both the corporate law and constant currency methodologies have no counterpart in the financial statements prepared by companies domiciled in the United States or in financial statements issued for circulation in the United States of companies domiciled in non-inflationary countries. However, the constant currency methodology under Brazilian GAAP is similar to an option granted by U.S. GAAP for non-U.S. companies reporting in local currency in countries with high inflation.

Through December 31, 1995, the Company used indices established by the government to restate balances and transactions for its preparation of constant currency financial statements. Such indices do not necessarily represent changes in general price levels, as would be required under U.S. GAAP. The difference not only affects the basic values of, principally, inventories, property, plant and equipment, deferred charges and shareholders' equity, but also all other financial statement items expressed in constant currency.

Because the Company's management believes that the General Price Index computed by Fundação Getúlio Vargas is the most appropriate and consistent measure of the general price inflation in Brazil and because of its availability, for U.S. GAAP purposes, the Company adopted IGP-DI (which differs from IGP-M only with regard to the cut-off date for price data collection) for purposes of remeasurement of its financial statements, replacing the government mandated index. This procedure is consistent with the recommendation by the Brazilian Task Force (organized under AICPA International Practices Task Force to review the issue of the appropriate index to be used for preparing price-level adjusted financial statements of Brazilian companies filing with the U.S. Securities and Exchange Commission) of using the IGP-M or IGP-DI for such purposes. Thus, all nonmonetary assets and liabilities were restated using IGP-DI since the inception of the Company.

### a(ii). Regulated accounting policies

The Company adopts the accounting policies established by the Department of Energy for electric utilities in Brazil.

Most electric utilities in the United States account for their operations and prepare their financial statements on the basis of the provisions of Statement of Financial Accounting Standards (SFAS) 71, "Accounting for the Effects of Certain Types of Regulation", the provisions of which only apply to companies within a ratemaking scheme that allows recovery of specific costs. SFAS 71 allows a company to reflect transactions in its financial statements based on the rate actions of the regulatory body.

Despite the existence of comprehensive regulation, the rates of Brazilian utilities have in the past not been set at levels which allow them to recover specific costs. Beginning in 1993, with the enactment of Law no. 8,631, the regulatory framework in Brazil was changed to allow a company to set its rates based on specific costs with an individually-based target return on equity. In theory, this new framework would allow the Company to apply fully the provisions of SFAS 71 in years beginning after 1993. However, because of the subsequent changes in the rate-setting mechanism discussed in Note 5, and also because of the regulatory environment prevailing in Brazil, the Company believes that it would not be subject to the provisions of SFAS 71 for all periods presented.

Consequently, the following differences arise in relation to the nonregulated accounting policies:

#### a(ii).1. Capitalization of interest costs relating to construction in progress

Under Brazilian GAAP, Copel capitalizes both interest costs of borrowed funds and imputed interest on shareholders' funds applied in construction in progress. Under U.S. GAAP, only capitalization of interest on borrowed funds would be acceptable. In addition, up to December 31, 1995 the amount capitalized was classified in deferred charges whereas under U.S. GAAP it would be included as part of the cost of the related asset in property, plant and equipment.

For U.S. GAAP reconciliation purposes, the imputed interest on shareholders' funds applied in construction in progress, capitalized, was reversed. Only interest on borrowed funds remains capitalized and the depreciation was computed using the rates applicable to the corresponding class of property, plant and equipment.

# a(ii).2. Special Obligations

Under Brazilian GAAP, the Company records special obligations, representing consumers' contributions to the cost of expanding power supply systems, as liabilities and includes the related assets in property, plant and equipment subject to depreciation over the applicable useful lives. Under U.S. GAAP contributions received from customers as reimbursement for construction costs are typically credited against the cost of the related fixed assets.

For U.S. GAAP reconciliation purposes, special liabilities were amortized using the depreciation rates applicable to the corresponding class of property, plant and equipment acquired with such consumers' contributions.

# a(ii).3. Rate Shortfall (CRC Account)

As more fully described in Note 5 Copel accounted for the benefit arising from rate shortfalls recovered directly in shareholders' equity. Under U.S. GAAP, these benefits would be taken to income in the periods to which they relate.

#### a(ii).4. Indemnification Costs

Brazilian utility companies are allowed to capitalize extraordinary indemnification costs incurred in the course of building new plants, such as contractual penalties on delays on construction or contractors claims. Under U.S. GAAP, such extraordinary costs would not be capitalized.

a(iii). General accounting policies

#### a(iii).1. Pension and Other Benefits

Under Brazilian GAAP, pension and other retirement benefit costs are recognized when the plans are funded. However, due to the change in the plan from a defined benefit to a defined contribution plan, the participants became vested in the benefits earned through the date of plan change. These vested benefits were recorded under Brazilian GAAP as a charge to shareholder's equity in 1998.

For U.S. GAAP reconciliation purposes, the provisions of SFAS 87 - "Employers' Accounting for Pensions" and SFAS 106 - "Employers' Accounting for Post-retirement Benefits Other than Pensions" were applied effective January 1, 1987 and January 1, 1993, respectively. Both SFAS 87 and SFAS 106 require recognition of costs on a more comprehensive accrual basis. Additionally, U. S. GAAP require that the recognition of either an asset or a liability, as appropriate, for the difference between the projected benefit obligations (as defined in SFAS 87 and SFAS 106) and plan assets be stated at fair value, adjusted for certain reconciling items.

The Company adopted SFAS 87 effective as of December 31, 1993 as reliable information prior to that date was not available.

# a(iii).2. Tax Incentive Investments

These investments, approved by the government in underdeveloped regions of Brazil or in specific projects, are available without additional cost upon the payment of taxes. Under Brazilian GAAP the investments are recorded as an asset, with a corresponding credit to a reserve in shareholders' equity.

For U.S. GAAP reconciliation purposes a provision for tax incentive investments was charged to income.

#### a(iii).3. Income Taxes

Under Brazilian GAAP, deferred income taxes are recognized under the liability method. Tax liabilities are recognized to the extent practicable, based on the amount expected to be paid. A net deferred tax asset is recognized if it can be shown that there is a reasonable certainty that the asset will be recovered against tax payable on future profits. Under U. S. GAAP, a net deferred tax asset related to temporary differences or tax loss carryforwards is recognized only if it is more likely than not that the asset will be realized.

Considering the specific tax position of the Company, these differences are not material for purposes of U. S. GAAP reconciliation.

#### a(iii).4. Provision for Dividends

Under Brazilian corporate law, at each balance sheet date, the Directors are required to propose a dividend distribution from earnings and accrue for this in the financial statements. However, such amount is not finally determined until it is voted upon at the annual meeting of shareholders.

For U.S. GAAP reconciliation purposes proposed dividends up to December 31, 1997 were not considered as declared at the balance sheet date because the amount of dividends was not approved by shareholders as at such date, and were therefore not accrued.

### a(iii).5. Prior Period Adjustments

Under Brazilian GAAP, prior period adjustments encompass corrections of errors in previously issued financial statements and the effects of changes in accounting principles.

For U.S. GAAP reconciliation purposes, prior period adjustments were effectively limited to correction of errors. Prior year adjustments related to changes in estimates were charged to income.

# a(iii).6. Impairment of Long Lived Assets

Under Brazilian GAAP, the carrying value of fixed assets are written down to realizable values, when it is estimated that such assets will not be realized through normal depreciation without loss to the company.

Under U.S. GAAP, a provision for impairment is recorded against long-lived assets when there is an indication, based on a review of undiscounted future cash flows, that the carrying value of an asset or a group of assets may not be recoverable. No provision was required for U.S. GAAP purposes.

#### a (iii).7. Earnings (Loss) Per Share

Brazilian GAAP permit earnings (loss) per share to be calculated based on the number of shares outstanding at year-end. Under U.S. GAAP, the earnings or loss per share calculation takes into account share equivalents and the number of shares is computed on a weighted average basis. Also, U.S. GAAP require the computation of fully diluted earnings and loss per share, which is not a practice under Brazilian GAAP. The Company does not have any instruments outstanding that could have a dilutive effect.

Income per share data is presented through thousand shares. Such presentation is consistent with the practice in Brazil of trading and quoting shares in thousand share lots.

#### a(iii).8. Financial Statement Note Disclosures

Brazilian GAAP in general requires, less information to be disclosed in the notes to the financial statements than U.S. GAAP. The additional disclosures required by U.S. GAAP, which are relevant to the accompanying financial statements, are included in Note 34 (c).

#### b. Reconciliation of differences between Brazilian and U.S. GAAP

Net income and shareholders' equity, adjusted to take into account the significant differences between Brazilian GAAP and U.S. GAAP, except for the comprehensive effects of price-level changes (as the

# Brazilian economy is inflationary), are as follows:

# b(i). Shareholders' equity reconciliation of the differences between US. and Brazilian GAAP

	As of December 31		
	1998	1997	1996
As reported on the accompanying price-level financial statements .			
	4,892,393	5,397,490	4,689,601
Increase (decrease) due to restatement			
Based on IGP-DI, replacing government index:			
Property, plant and equipment:			
Cost	4,310,566	2,578,174	2,586,058
Accumulated Depreciation	(2,742,471)	(1,778,302)	(1,685,734)
Special liabilities	(511,851)	(325,924)	(325,924)
Materials and supplies	23,060	25,606	25,606
Investments	2,743	21,274	21,274
Different criteria for:			
Capitalization of interest during construction:			
Reversal of interest capitalized under Brazilian regulated			
accounting	(847,652)	(841,328)	(836,720)
Capitalization of interest	1,025,899	1,025,899	1,025,899
Depreciation of capitalized interest	(477,671)	(443,642)	(409,613)
Reversal of proposed dividends, net of dividends deemed to be			
declared under U.S. GAAP	-	70,592	127,478
Provision for tax incentive investments	(7,706)	(12,564)	(12,564)
Pension SFAS 87 adjustment	(491,868)	(331,495)	(166, 341)
Reversion of Brazilian pension plan obligation,			
net of tax effects (See Note 29)	302,395	-	-
Cumulative amortization of special liabilities	569,423	527,590	486,743
Reversal of indemnification costs, net of depreciation	(42,402)	(44,100)	(22,765)
Deferred tax effects of the above adjustments	(279, 226)	(136,194)	(275,998)
Approximate shareholders' equity under U.S. GAAP	5,725,632	5,733,076	5,227,000

# b(ii). Net income reconciliation of the differences between U.S. and Brazilian $\,$ GAAP

between C.S. and brazinan GAAr	For the years ended		
	1998	1997	1996
As reported on the accompanying price-level financial statements	374,490	306,688	251,194
Increase (decrease) due to restatement			
Based on IGP-DI, replacing government index:			
Property, plant and equipment:			
Cost	(34,452)	(7,884)	7,586
Depreciation	(121,356)	(92,568)	(87,429)
Special liabilities	-	-	1,619
Materials and supplies	-	-	4,143
Investments	-	-	(934)
Loss on net monetary position	-	-	(33,505)
Different criteria for:			
Capitalization of interest during construction:			
Reversal of interest capitalized under Brazilian			
regulated Accounting	20,701	25,454	33,252
Capitalization of interest	-	-	44,449
Depreciation of capitalized interest	(34,029)	(34,029)	(35,751)
Pension benefits – SFAS 87:			
Adjustment to US. GAAP	(48,203)	(53,161)	(72,266)
Loss from Curtailment	(62,982)	-	-
Amortization of special liabilities	41,834	40,847	39,175
Fiscal incentives	18,015	-	-
Indemnification costs	1,698	(21,335)	-
Provision for losses on tax incentive investments	(1,553)	=	1,134
Deferred tax effects on the above adjustments	78,140	(14,855)	3,196
Income tax on special monetary correction (Law 8,200/91)	-	-	(19,673)
Approximate net income under U.S. GAAP	232,303	149,157	136,190
Other comprehensive income –	202,000	110,107	100,100
Reduction of equity for pension plan, net of tax effects	(32,956)	_	_
Approximate net income under U.S. GAAP, net of	(02,000)		
Comprehensive income	199,347	149.157	136,190
Comprehensive income	100,047	140,107	100,100
U.S. GAAP net income per thousand shares, before			
comprehensive income effects	0.73	0.58	0.56
Weighted average shares (thousands) in circulation	273,655,376	255,021,178	241,710,933
0	2.0,000,010		~11,710,000

b(iii). Statements of changes in shareholders' equity in accordance with U.S. GAAP

	1998	1997	1996
Shareholders' equity under U.S. GAAP as of			
beginning of the year	5,733,076	5,227,000	5,010,842
Capital increase	-	637,545	10,610
Increase (reduction) of equity for pension plan -			
other comprehensive income	(49,188)	(112,029)	141,176
Deferred tax effect of pension plan	16,232	36,919	(47,220)
Net income for the year	232,303	149,157	136,190
Dividends	(206,791)	(205,516)	(24,598)
Shareholders' equity under U.S. GAAP as of ending			
of the year	5,725,632	5,733,076	5,227,000

c. Additional disclosures required by US. GAAP

# c(i). Retirement Benefits

If COPEL had reported its net pension cost and the funded status of its pension plan in accordance with accounting principles and actuarial assumptions generally accepted in the United States of America, the disclosures required would have been as follows:

# c(i).1. Pension Benefits

	Year Ended December 31,			
•	1998	1997	1996	
Components of net pension cost:				
Service cost	35,778	40,349	39,564	
Interest cost	133,925	64,105	61,461	
•	169,703	104,454	101,025	
Return on Assets:				
Actual	(62, 256)	(104,056)	(104, 327)	
Gain/(loss) deferred	(10,114)	71,448	79,336	
Expected	(72,370)	(32,608)	(24,991)	
Amortizations:				
Net (gain)/loss	18,963	14,014	21,620	
Unrecognized net transition obligation	9,590	12,589	12,597	
Employee contributions	(17,556)	(24,777)	(13,945)	
Net periodic pension cost under U.S. GAAP	108,330	73,672	96,307	
Pension costs considered under Brazilian GAAP	(60, 127)	(20,511)	(24,040)	
Adjustment to U.S. GAAP net income	48,203	53,161	72,266	

# c(i).2. Actuarial assumptions:

	1998	1997	1996
Discount rate	10.24%	6%	6%
Salary increase rate	6.08%	3%	3%
Return on assets	10.24%	<b>6</b> %	6%

# c(i).3. Curtailment effects

Copel sponsored a "defined benefit" pension plan, which, in 1998, was amended and converted into a new "defined-contribution" pension plan.

As of September 30, 1998, a significant number of employees had already expressed their intention to transfer to the new defined-contribution plan. As a result, the Company recognized a loss, determined as follows:

	Curtailment effects as of September 30, 1998			
	Before	Effect of	After	
	Curtailment	Curtailment	Curtailment	
Actuarial present value of:				
- Vested benefit obligation	988,428	(24,427)	964,001	
- Non vested benefit obligation	215,425	120,386	335,811	
Total Accumulated Benefit Obligation	1,203,853	95,959	1,299,812	
Projected benefit obligation	1,452,692	(132,563)	1,320,129	
Fair value of plan assets	(745,807)	-	(745,807)	
Funded position	706,885	(132,563)	574,322	
Unrecognized net transition obligation	(66,097)	62,982	(3,115)	
Unrecognized net (gain) losses	(460,966)	132,563	(328,403)	
Accrued pension expense	179,822	62,982	242,804	

## c(i).4. Funded status

	As of December 31, 1998			
<del>-</del>	1998	1997	1996	
Actuarial present value of:				
- Vested benefit obligation	965,770	678,070	465,888	
- Non vested benefit obligation	341,831	468,515	431,950	
Total Accumulated Benefit Obligation	1,307,601	1,146,585	897,838	
Projected benefit obligation	1,328,201	1,345,714	1,090,358	
Fair value of plan assets	(781,994)	(701,654)	(534,413)	
Funded position	546,207	644,060	555,945	
Unrecognized net transition obligation	(2,967)	(75,539)	(88, 185)	
Unrecognized net (gain) losses	(285,916)	(418,864)	(301,412)	
Accrued pension expense	257,324	149,657	166,348	
Adjustment to recognize minimum liability:				
charge to equity, net of intangible asset	268,923	219,735	108,890	
Total accrual required at December 31,	526,247	369,392	275,238	
Recognized by the Company	(482,107)	(37,897)	(108,897)	
Adjustment to USGAAP shareholders' equity	44,140	331,495	166,341	
Reversion of pension plan obligation gross				
recorded in accordance with Brazilian GAAP	447,728	<u> </u>		
Total adjustments to US. GAAP				
Shareholders' equity	491,868	331,495	166,341	

The unrecognized net transition obligation and net gains or losses are being amortized on a straight-line basis over 15 years. Amortization of net transition obligation from December 31, 1988 (the effective date of

SFAS 87 for non US. plans) through December 31, 1993 was recorded directly to equity in the opening balance sheet under US GAAP, and amounted to approximately R\$64,658.

The Company has no postretirement health care insurance or other benefit plans, other than the pension plan referred to in Note 29. Therefore, SFAS 106, "Employers' Accounting for Postretirement Benefits Other Than Pensions", has no effect on the Company's financial statements. Similarly, the Company does not provide any of the benefits required to be accrued under SFAS 112, "Employers Accounting for Postemployment Benefits".

#### c(ii). Fair Value of Financial Instruments

Except for cash and cash equivalents, which are stated at cost plus accrued interest and which approximate fair value, the carrying value of COPEL's other financial instruments, in Reais, approximates fair values at such dates reflecting the short-term maturity or frequent repricing at December 31, 1998, 1997 and 1996 of these instruments.

Based on interest rates currently available to COPEL for bank loans with similar terms and average maturities, the fair value of long-term debt at December 31, 1998, 1997 and 1996 approximates its carrying value.

Fair value estimates are made at a specific date, based on the financial instruments. These estimates are subjective in nature and involve uncertainties and matters of significant judgment and therefore cannot be determined with precision. Changes in assumptions could significantly affect the estimates.

#### c(iii). Concentration of Credit Risk

The COPEL system is prohibited from investing its surplus cash balances in financial instruments other than government securities controlled by the Central Bank of Brazil or the federally owned bank, Banco do Brasil S.A.

Credit risk with respect to customer accounts receivable is diversified. COPEL continually monitors its customer accounts receivable and limits its exposure to bad debts by curtailing service if any invoice is one month overdue. Exceptions comprise supply of electricity that must be maintained for reasons of safety or national security.

### c(iv). Impairment of Long-Lived Assets

The Financial Accounting Standards Board in the United States issued SFAS 121 "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of" (SFAS 121) in March 1995, which is effective January 1, 1996. SFAS 121 requires that an impairment loss be recognized when circumstances indicate that the carrying amount of an asset may not be recoverable. The Company's current analyses indicate the applications of FAS 121 will not have a significant impact on the Company.

#### c(v). Comprehensive Income

Under SFAS 130, "Reporting Comprehensive Income" which is effective for fiscal years beginning after December 15, 1997, the amounts related to the pension plan and the related deferred tax effect which were recorded as adjustments directly to equity for U.S. GAAP have been considered as comprehensive income.

#### c(vi). Statements of Cash Flows

Brazilian GAAP does not require the presentation of a statement of cash flows as required by U.S. GAAP. Changes in working capital are presented in the statement of changes in financial position. U.S. GAAP

requires the presentation of a statement of cash flows describing a company's cash flows from operating financing and investing activities, as follows:			

# COMPANHIA PARANAENSE DE ENERGIA - COPEL

# STATEMENT OF CASH FLOWS

(Expressed in thousands of Brazilian Reais.)

	Year Ended December 31,		
_	1998	1997	1996
Operating activities:			
Net income	374,490	306,688	251,194
Adjustments to reconcile net income to net cash	0.1,100	000,000	201,101
provided by operating activities:			
Depreciation and amortization	244,783	264,650	236,741
Disposal of property, plant and equipment and other	36,302	38,861	30,245
Equity pick-up on investees	8,631	-	-
Provision for long-term liabilities	42,503	10,151	39,464
Deferred income taxes	4,015	(7,887)	18,962
Monetary variation of long-term assets and liabilities	36,737	(33,785)	(61,898)
Allowance for doubtful accounts	7,244	(2,655)	5,602
Reversion of provision for COFINS without judicial deposits	(28,632)	-	-
· · · · ·	351,583	269,335	269,116
Changes in current assets and liabilities:			
Accounts receivable	(19,794)	32,332	(35,607)
Services in progress	12,396	(8,601)	(14,585)
Other accounts receivable	3,954	15,176	32,218
Materials and supplies	(4,928)	6,114	3,828
Prepayment of value-added tax (ICMS tax	33,684	(156,691)	-
Prepaid expenses	6,469	2,101	(4,048)
Suppliers	4,736	(7,470)	219
Accrued payroll costs	(20,554)	8,111	6,015
Taxes, other than income tax	(3,088)	(66, 182)	(38,669)
Advance billings of electric power	(9,336)	(24,524)	(2,155)
Regulatory charges	(6,354)	(21,497)	(1,186)
Pension plan	(13,113)	(98,174)	(27,547)
Other accrued liabilities	4,974	8,650	387
	715,119	265,368	439,180
Changes in noncurrent assets and liabilities:			
Judicial deposits	(24,842)	(9,477)	(3,282)
Other noncurrent assets	(13,152)	-	(11,242)
Advance billings of electric power	-	13,644	-
Provision for contingencies – related to permanent assets	-	33,137	-
Net cash provided by operating activities	677,125	302,672	424,656
_		· · · · · · · · · · · · · · · · · · ·	-

# COMPANHIA PARANAENSE DE ENERGIA - COPEL

# STATEMENT OF CASH FLOWS

(Expressed in thousands of Brazilian Reais.)

	Year I	r <b>31</b> ,	
- -	1998	1997	1996
Investing activities:			
Additions to investments:			
Sercomtel Telecomunicações S.A. and	(186,486)	_	_
Sercomtel Celular S/A	(100,400)		
Dominó Holdings S/A	(37,654)	_	_
Companhia Paranaense de Gás – Compagás	(8,477)	(735)	_
Other investments	(8,177) $(8,194)$	(16,277)	(8,387)
Additions to property, plant and equipment:	(0,134)	(10,277)	(0,307)
	(435,568)	(310,567)	(247,726)
Salto Caxias hydroelectric power plant Other generation plants	(29,660)	(310,307) $(44,299)$	(247,720) $(102,715)$
Transmission network	(29,600) $(142,639)$	(44,299) $(48,776)$	(102,713) $(46,884)$
Distribution network	(119,703)	(170,166)	(97,127)
Other	(35,624)	(36,539)	(52,068)
Consumer contributions	26,272	28,519	28,692
Net cash provided by (used in) investing activities	(977,733)	(598,840)	(526,215)
Financing activities:			
Loans and financing:			
Local currency	(7,213)	314,398	49,422
Foreign currency	(72,355)	93,260	97,927
Capital paid-in and credits for capital increase	-	637,545	10,344
Dividends	(84,370)	(206,886)	(27,743)
Recoverable rate deficit (CRC)	7,055	30,760	25,561
Net cash provided by (used in) financing activities	(156,883)	869,077	155,511
<u> </u>			
Net increase (decrease) in cash and equivalents	(457,491)	572,909	53,952
	670 110	07.910	40.070
Cash and equivalents, beginning of the period	670,119	97,210	43,258
Cash and equivalents, end of the period	212,628	670,119	97,210
=	(457,491)	572,909	53,952
Supplementary cash flow disclosure:			
Taxes paid	55,488	105,911	65,447
Interest paid	74,622	101,404	42,227
meresi paiu	14,022	101,404	46,661

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