

Your Directors have pleasure in presenting the 76th Annual Report and the Audited Accounts for the year ended 31st March, 2005.

**Financial Results**

During the year under review, the Company achieved an aggregate income of Rs.4,592.55 crore.

The highlights of the financial results are as under:

	2004-2005	(Rs. crore) 2003-2004
Total Income	<b>4,592.55</b>	3,582.70
Gross Profit before Depreciation	<b>916.08</b>	736.08
Depreciation	<b>346.44</b>	318.72
Profit before Tax	<b>569.64</b>	417.36
Provision for Taxation (Income-tax and Wealth Tax)	<b>25.50</b>	28.65
Provision for Deferred Tax	<b>24.00</b>	21.63
Profit after Tax	<b>520.14</b>	367.08
<b>Add :</b>		
Balance of Profit brought forward from previous year	<b>122.55</b>	93.77
Balance of Profit transferred on amalgamation	-	1.85
	<b>642.69</b>	462.70
<b>Less / Add :</b>		
Prior Period Adjustments -		
Current Tax (Net)	<b>(0.48)</b>	(7.14)
Deferred Tax (Net)	-	-
Expenses	<b>0.33</b>	0.10
	<b>642.84</b>	469.74
<b>Less:</b> Statutory Reserves	<b>17.21</b>	16.50
Amount available for appropriations	<b>625.63</b>	453.24
<b>Appropriations :</b>		
Dividend on Equity Shares		
(i) Interim-Quarterly Dividends	<b>61.23</b>	42.84
(ii) Final Dividend	<b>25.98</b>	27.65
(iii) Final Dividend on Equity Shares for Previous year	<b>0.15</b>	-
Corporate Tax on Dividends	<b>11.74</b>	9.03
Transfer to Debenture Redemption Reserve	<b>26.22</b>	26.17
Transfer to General Reserve	<b>300.00</b>	225.00
Balance carried to Balance Sheet	<b>200.31</b>	122.55
	<b>625.63</b>	453.24

**Dividend**

In keeping with the Company's policy to strive towards enhancing the shareholders' interest, the Company pays dividend on quarterly basis. During the year, the Company paid Quarterly Dividends of Re.1.10 (11%) each on Equity Shares for the quarters ended 30th June, 30th September and 31st December, 2004. In addition to three quarterly dividends aggregating Rs. 3.30 per Equity Share paid during the year 2004-05, the Directors recommend a final dividend of Rs. 1.40 (14%) per Equity Share making a total dividend of

Rs. 4.70 (4.7%) per Equity Share for the financial year ended 31st March, 2005, which, if approved at the forthcoming 76th Annual General Meeting, will be paid to (i) those Equity Shareholders whose names appear on the Register of Members of the Company after giving effect to all valid share transfers in physical forms lodged with the Company on or before 31st May, 2005 and (ii) to those whose names appear as beneficial owners as at the end of business on 31st May, 2005, as per particulars to be furnished by the Depositories, viz. National Securities Depository Limited and Central Depository Services (India) Limited, for this purpose.

**Buy-back of Equity Shares**

The Company made an offer on 9th June, 2004, for buy-back of equity shares in terms of the Securities and Exchange Board of India (Buyback of Securities) Regulations 1998 ("Buyback Regulations"). The Buy back offer was at a price not exceeding Rs. 525 per equity share, aggregating up to Rs. 350 crore. The Buy-back offer was valid for an initial period of 90 days up to 17th September, 2004 and was extended from time to time. The buy-back offer will be completed within the statutory validity period of twelve months from the date of the resolution i.e. on or before 8th June, 2005. Keeping in view the market conditions and the movement in share prices, the Company has not bought any shares under the offer.

**Fixed Deposits**

The Company discontinued accepting Fixed Deposits since December 1998. Deposits amounting to Rs. 2,67,000 due for repayment, were unclaimed by 32 depositors as on 31st March, 2005. Since then, none of the depositors has claimed the deposits. The Company, during the year transferred Rs.2,12,440 being the unclaimed deposit and interest amount, to the Investor Education and Protection Fund set up by the Government of India.

**Standby Charges**

The Maharashtra Electricity Regulatory Commission (MERC), vide its order dated 31st May 2004 directed The Tata Power Company Limited (TPC) and the Company to make future monthly payments in the ratio of 77:23 between TPC and the Company. MERC further directed TPC to refund about Rs 321 crore (US\$ 74 million) to the Company, in respect of excess payments already made towards standby charges, under various interim orders less interest liability on the Company, to the extent of Rs 1.17 crore.

The High Court, however, by its interim order directed TPC to provide a Bank Guarantee to the Company for Rs 313.93 crore, in lieu of payment pending disposal of the Company's appeal. As a final order, the Hon'ble High Court of Bombay has disposed of both the petitions by holding that the issues should be adjudicated within four months by the Appellate Tribunal, and in the interregnum the parties to continue to pay in terms

of the interim order subject to adjustments on adjudication. The Company has filed a Special Leave Petition (SLP) in the Supreme Court against the interim order of the High Court, seeking cash refund/adjustment, instead of the bank guarantee. The SLP is pending for orders.

### **Management Discussion and Analysis of Financial Condition and Results of Operations**

Management Discussion and Analysis of Financial Condition and Results of Operations of the Company for the year under review as required under Clause 49 of the Listing Agreement with the Stock Exchanges, is given as a separate statement in the Annual Report

#### **Delisting of shares**

The Company delisted its shares from the Calcutta Stock Exchange Association Limited in line with the Resolution passed by the Members of the Company at the Annual General Meeting on 9th June, 2003 and in accordance with the Securities and Exchange Board of India (Delisting of Securities) Guidelines, 2003. The Company's equity shares are currently listed and traded on the Stock Exchange, Mumbai (BSE) and National Stock Exchange of India Limited (NSE) in India.

#### **Directors**

Shri K D Kulkarni ceased to be Director (HRD) on 19th October, 2004 after attaining superannuation. The Board recorded with appreciation the contribution made by Shri Kulkarni during his tenure as Director (HRD) of the Company.

During the year, Shri Cyril Shroff resigned from the Board on 28th May, 2004. Shri Amitabh Jhunjunwala and Prof. J Ramachandran resigned from the Board of the Company on 19th January, 2005. The Board while accepting their resignations recorded with appreciation the contributions made by Shri Cyril Shroff, Shri Amitabh Jhunjunwala and Prof J Ramachandran during their tenure on the Board.

Gen V P Malik, Shri S L Rao and Dr. Leena Srivastava retire by rotation and are eligible for re-appointment.

Brief resumes of Directors, the nature of their expertise in specific functional areas, names of companies in which they hold directorships and the memberships of committees of the board, their shareholdings, etc. are given in the section on Corporate Governance elsewhere in the Annual Report.

#### **Directors' Responsibility Statement**

Pursuant to the requirement under Section 217 (2AA) of the Companies Act, 1956, with respect to Directors' Responsibility Statement, it is hereby confirmed that: (i) in the preparation of the annual accounts for the financial year ended 31st March, 2005, the applicable accounting standards have been followed along with proper explanations relating to material departures; (ii) the Directors have selected such accounting policies and applied them consistently, and made judgments and estimates that are reasonable and prudent so as to give

a true and fair view of the state of affairs of the Company as at 31st March, 2005 and of the profit of the Company for the said period; (iii) the Directors have taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of the Companies Act, 1956, for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities; and (iv) the Directors have prepared the accounts for the financial year ended 31st March, 2005, on a 'going concern' basis.

The above statements have been noted by the Audit Committee at its meeting held on 13th April, 2005.

#### **Auditors**

M/s. Haribhakti & Co. Chartered Accountants, and M/s Chaturvedi & Shah, the Statutory Auditors, will retire at the conclusion of the forthcoming Annual General Meeting and are eligible for re-appointment. The Company has received letters from each of them to the effect that their appointment, if made, would be within the limits prescribed under Section 224 (1B) of the Companies Act, 1956. M/s. Price Waterhouse, the other retiring joint auditors, conveyed that they were not in a position to accept any appointment as joint statutory auditors of the Company and that they would be in a position to provide their consent and eligibility for being appointed only as sole statutory auditors of the Company for the financial year 2005-06. The Company follows the practice of appointing joint statutory auditors. It is accordingly proposed to appoint M/s. Haribhakti & Company and M/s. Chaturvedi & Shah, as joint statutory auditors of the Company for the year 2005-06.

#### **Technology Absorption and Foreign Exchange Earnings and Outgo**

The information relating to technology absorption, foreign exchange earnings and outgo required to be disclosed under Rule 2 of the Companies (Disclosure of Particulars in the Report of Board of Directors) Rules, 1988, is given in Annexure I and forms part of this Report.

#### **Corporate Governance**

The Company is one of the pioneers in the country in implementing the best of international practices of corporate governance. A separate section on Corporate Governance forms part of the Annual Report. A certificate from Auditors of the Company regarding compliance of conditions of Corporate Governance as stipulated under Clause 49 of the Listing Agreement is given in Annexure II.

#### **Personnel**

In accordance with the provisions of Section 217 (2A) of the Companies Act, 1956, read with the Companies (Particulars of Employees) Rules, 1975, the names and other particulars of employees are set out in the Annexure to the Directors' Report. However, as per the provisions of Section 219 (1) (b) (v) of the Companies Act, 1956, the Report and Accounts is being sent to all



the shareholders of the Company excluding the aforesaid information. Any shareholder interested in obtaining such particulars may write to the Company Secretary at the Registered Office of the Company.

**Acknowledgement**

The Board of Directors wishes to thank the Government of India (including the Ministry of Power), Governments of Maharashtra, Andhra Pradesh and Goa (including Energy and Environment Departments), Maharashtra Pollution Control Board, Maharashtra State Electricity Board, Electricity Regulatory Commissions of Maharashtra and Andhra Pradesh, Dahanu Taluka Environment Protection Authority, Municipal Corporation of Mumbai, financial institutions, bankers, customers, suppliers, shareholders and the employees of the Company.

On behalf of the Board of Directors

Mumbai,

14th April, 2005

**Anil D Ambani**

Chairman & Managing Director

Disclosure under the Companies (Disclosure of Particulars in the Report of Board of Directors) Rules, 1988

- A. Conservation of Energy: Not Applicable
- B. Technology Absorption: Efforts made in technology absorption as per Form B given below.

#### FORM 'B'

#### RESEARCH AND DEVELOPMENT (R&D)

1. Specific areas in which Research and Development was carried out by the company:

##### A Electricity Supply Division

- a. Use of Polymer for substation kiosks and concrete foundation base for LT Pillars.
- b. Refinement and Improvement of Theft Detection Device (TDD).
- c. Design & Development of Powerline Remote Units for Automatic Meter Reading.

##### Benefits derived:

- a. Reduction in erection time and maintenance cost. Use of polymer-based materials has resulted in lowering the capital cost of the equipment, elimination of periodic maintenance cost (re-painting works) and reduction in cases of theft.
- b. Reduction in theft of electricity from Mains.
- c. Improvements in process of billing and error free operations, theft reduction, energy audit, load profile, time of use tariffs (when applicable), and online availability of consumer data, online real time payment.

##### Future plan of action

- a. Reinforced hollow polyconcrete poles as an alternate to M.S. galvanized poles for reduction of initial capital and maintenance cost.
- b. Ready to erect base structure for LT pillars on public roads for reduction of erection time and labour cost.
- c. Hand held palm top for facilitating substation inspection and load reading.
- d. Deployment plan for Theft Detection Device (TDD) in all Divisions.
- e. Further to existing AMR pilots, two more pilots are in pipeline to evaluate all available technologies for adoption. Feasibility study for Energy Data Management System for Enterprise wide meter data management through AMR.
- f. Integrated Supervisory Control and Data Acquisition (SCADA) of the complete REL network at one point for better contingency management.
- g. Hotline washing of the Transmission towers.
- h. Use of unitized substations to meet the challenge of space constraints.

- i. Use of vacuum breakers at distribution substation level for maintenance free life.
- j. Use of fault passage indicator, a simple and effective tool for identifying faulty cable sections in the field.
- k. Chemical treatment of earth pits to achieve low resistance, even in rocky soil

##### B. Goa Power Station

- a. Implementation of Triple Modular Redundancy (TMR) concept at device level for Gas Turbine liquid fuel system.
- b. Strengthening of online Vibration monitoring system of Gas Turbine by providing additional sensors.

##### Benefits derived:

- a. Improvement in Reliability of Turbine Protection System for better Plant availability.
- b. Increased Reliability of Turbine Monitoring system.

##### Future plan of action

- a. Reduction of naphtha Emission Losses from floating roof naphtha storage tanks by installing mechanical shoe type seals.
- b. Aux Power Reduction  
Use of Gas Turbine extraction air as plant instrument air by keeping instrument air compressors in cold standby mode

##### C. Goa Distribution system

- a. Design of 33kV Outdoor LBS panel with Metering arrangement and protection in form of HT HRC fuse to be installed at Consumer premises.
- b. Installation of kV meter and Definite UV/OV relay at the Substation transformer RTCC for verifying correct recording of voltages and tripping the I/ C 11kV CB in case of mal operation of RTCC panel.

##### Benefits derived

- a. This replaces the conventional outdoor structure with LBS/CT/PT/LA and fuse. The panel is compact in design, occupies less space, requires less time for installation and can be moved without dismantling. Further, the panel is not exposed to faults occurring due to external climatic conditions such as lightning, flashovers etc.
- b. This prevents the consumer from being subjected to too high/low voltage due to fault / mal operation of the RTCC panel.

##### Future plan of action

- a. Implementation of Automated Remote Metering for select HT consumers.
- b. Fiber based metering boxes for Outdoor Applications.
- c. Introducing concept of Self-metering for all HT/LT consumers for reduction of time for metering.



#### D. Dahanu Thermal Power Station:

Development of bootable hard disk for Plant Management team.

##### Benefits derived

Cost saving and reliability improvement

#### 2. Expenditure on R & D :

Capital Expenditure: Rs. 60.57 lakh

Recurring Expenditure: Rs. 35.17 lakh

### TECHNOLOGY ABSORPTION, ADAPTATION AND INNOVATION

#### 1.0 Electricity Supply Division

##### 1.1 Efforts, in brief, made towards technology absorption, adaptation and innovation:

- a. Adoption of polymer based materials in distribution system for substation kiosks and ready concrete foundation base for LT Pillars erection.
- b. Refinement and improvement of Theft Detection Device (TDD) and deployment in Mumbai in progress.
- c. Design & Development of Power-line Remote Units for Automatic Meter Reading (AMR). Pilot project started in Mumbai for evaluation of cost-benefit, technology adoption and integration requirements.
- d. Procurement of Automatic Meter Reader enabled & Time of Day (TOD) enabled meters. Pilot AMR deployed in Grid Meters for Availability based Tariff and load dispatch information.
- e. Use of bolted links in LT pillars to prevent the theft of copper removable links.
- f. Deployment of GSM based Automatic Meter Reading System for all HT consumers in Mumbai.
- g. The real time data acquisition for energy meters were introduced in the transmission system to eliminate the manual errors and data acquisition and thereby the correct assessment of the transmission and transformation losses.
- h. Buzzer testing of the insulators were carried out in the transmission line and thereby preventive maintenance was carried out for the insulators which ultimately results in tripping of the transmission lines due to tracking in the insulators.
- i. Implementation of SAP system.
- j. Introduction of Smart Card Attendance.
- k. Loss calculation and assessment of network loading using SINICAL -load flow software.

##### 1.2 Benefits derived:

- a. Reduction in erection time and maintenance cost. Use of polymer-based materials has resulted in lowering the capital cost of the equipment, elimination of periodic maintenance cost (re-painting works) and reduction in cases of theft.
- b. Reduction in theft of electricity from Mains.
- c. Improvements in process of billing and error free

operations, theft reduction, energy audit, load profile, time of use tariffs (when applicable), and online availability of consumer data, online real time payment.

- d. Readiness for remote metering & TOD tariff.
- e. Use of bolted copper links in place of removable links resulted in reduction of theft and hence interruption to consumers.
- f. Implementation of AMR for HT consumers contributes to significant process improvements for load survey, tamper and theft and billing with online monitoring and immediate access to data.
- g. Adoption of broadband on power-line technology allows deriving significant value addition and benefits by using the power infrastructure already in place. Benefits such as asset monitoring, data communication for security and AMR for internal process needs. There also exists significant scope to offer other services including "Telephony on Power-line" and other value added services including home automation gateway, consumer services like medical alerts and security services including video on power-line.
- h. Increased availability of equipment.
- i. Eliminating repetitive clerical and routine work thereby increasing efficiency and productivity.
- j. Better monitoring of employee attendance and removal of manual process.
- k. Better identification of loaded network pockets or sections.

#### 2.0 Dahanu Thermal Power Station:

##### 2.1 Efforts, in brief, made towards technology absorption, adaptation and innovation:

- a. Installation of 6 No SQ-300 state of art Electrostatic Precipitators (ESP) field controllers.
- b. Design and commissioning of state of art Remote Energy Metering System for grid. All grid meters commissioned in first phase.
- c. Installation of PLC based automation for Cooling Water Pumps, Air Drier of Compressed Air System and Dry Ash Evacuation System.
- d. Installation of Fire Alarm System for Turbine-Generator area of Unit No. 2.
- e. Installation of Digital Displays for continuous online Plant performance & Environmental parameters
- f. Condition monitoring:

Civil: Structural investigation and stability checks were carried out for various structures with the objectives:

- a. To investigate the health of the main civil structures of the plant
- b. To generate data to predict residual life based on future studies.

- c. To define remedial measures for any serious distress in any structure and.
  - d. To certify the structures for their stability.
- Electrical & Other Equipment: Equipment were subjected to modern diagnostic techniques.
- a. Capacitance and Tan delta tests were carried out for Generator, Generator Transformer, and Generator Transformer Bushings, Unit Aux. transformer, 220 KV CT and all Unit No. 2 6.6 KV HT motors.
  - b. Sweep Frequency Response Analysis and Recovery voltage measurement was performed for Generator Transformer No. 2.
  - c. Third Harmonic Leakage Current measurement for 220 KV Lightning Arrestors were carried out.
  - d. Peakvue technique was adopted to diagnose the problems in bearings in the rotating machines in Coal Mill.

### **2.2 Benefits derived as a result of the above efforts:**

- a. ESP Field Controllers resulted in reduced Stack Emission
- b. Improved Energy Management using remote Energy Metering
- c. Higher reliability in PLC based operation of Equipment
- d. Fire Safety in Turbo Generator U-2 using new Fire Detection System
- e. Improved monitoring and higher level of awareness
- f. Ensured healthiness of Civil Structures by Condition Monitoring
- g. Ensured healthiness of Electrical Equipment by diagnostic tests
- h. Peakvue used for diagnosing bearing problems in slow speed machines

### **3.0 Samalkot Power Station**

#### **3.1 Efforts, in brief, made towards technology absorption, adaptation and innovation:**

- a. Equipped with the state-of-the-art technology control systems for its Gas Turbine Generator set as well as for its Steam Turbine Generator Set.
- b. The equipment in the balance of Plant can be put into service from the remote control room with the usage of an advanced version of Functionally Distributed Control System.
- c. The switchyard of the power station is provided with the latest genre of the SCADA System.

#### **3.2 Benefits derived as a result of the above efforts:**

The application of the above technologies facilitates safe, economic and efficient operations of the plant.

### **4.0 Goa Power Station**

#### **4.1 Efforts, in brief, made towards technology absorption, adaptation and innovation:**

- a. Installed Triple Modular Redundancy (TMR) concept at device level for Gas Turbine liquid fuel system.
- b. Installation of additional sensors for Vibration monitoring system of Gas Turbine.
- c. Installation of On line water wash system for Gas Turbine Compressor cleaning
- d. Replacement of Naphtha Lubricity additive on Fuel Path rotating components
- e. Energy saving methods:
  - i) Installation of electronic ballast and energy saving unit for plant Lighting.
  - ii) Installation of variable frequency drive for cooling tower make-up pump.

#### **4.2 Benefits derived:**

- a. Improvement in Reliability of Turbine Protection System and Availability.
- b. Increased Reliability of Turbine Monitoring system.
- c. Compressor online washing
- d. Lowering of Overall rate of de-rating of Gas Turbine Output due to Compressor - Fouling.
- e. Reduction of Planned Gas Turbine Shutdown for carrying Off-Line Compressor Wash.
- f. 40-45% savings on Lubricity additive with same Reliability.
- g. Reduction in Auxiliary Power consumption.

### **5.0 Goa Distribution system**

#### **5.1 Efforts, in brief, made towards technology absorption, adaptation and innovation:**

- a. Design of 33kV Outdoor Load Break Switch (LBS) panel with Metering arrangement and protection in form of HT HRC fuse at Consumer premises.
- b. Installation of kV meter and Definite Under Voltage / Over Voltage (UV/OV) relay at the Substation transformer Remote Tap Changer Control (RTCC) for verifying correct recording of voltages and tripping the I/C 11kV CB in case of mal-operation of RTCC panel.
- c. Power Quality Analysis carried out for all HT/LT consumers to access the power quality parameters at consumer end
- d. Studying the consumer end installation and providing solutions for effective utilization of power.
- e. Fuse failure relays with annunciations for consumers supplied by Switch Fuse Unit (SFU) units.
- f. Successful laying of 33kV Under Water Cables for a distance of 800 Mts across river Zuari. The cable is laid 2.5 Mts below riverbed and is well protected by covering it with sand cement bags and back filling of dredge earth.

## 5.2 Benefits derived:

- a. This replaces the conventional outdoor structure with LBS/CT/PT/LA and fuse. The panel is compact, requires less time for installation and can be moved without dismantling. The panel is not exposed to faults occurring due to external climatic conditions such as lightning, flashovers etc.
- b. This prevents the consumer from being subjected to too high/low voltage due to fault / mal-operation of the RTCC panel.
- c. The quality of power at the consumers end determines the quality of power of the entire distribution system. Power quality parameters such as current & voltage harmonics, distortion/unbalanced loading are measured and report circulated to all consumers. The consumers are advised to take corrective action if the values obtained are outside the limits set by IEEE.
- d. Effective Utilisation of power is as important as the quality of power. REL provides technical solution to consumers as such relay settings / settings of machines such as Variable Frequency Drives (VFDs), Compressors, Molding / Use of capacitors and its effect on OU,

harmonics / Transformer tap position and voltage regulation within consumer premises. This helps in better use of power and improving supplier-consumer relationship.

- e. Detects single phasing with alarm. The consumer can be immediately isolated. This prevents damage to consumer end equipments due to single phasing.
- f. The cable was laid for completion of ring main and for tapping power to a new load centre. Taking the cable on alternate route would result in substantial increase in the length of the cable.

### EXCHANGE EARNINGS AND OUTGO:

The required information in respect of foreign exchange earnings and outgo is given in Note No 6 of the Accounts.

On behalf of the Board of Directors

**Anil D Ambani**

Chairman & Managing Director

Mumbai

14th April, 2005

**Auditors' Certificate on compliance with the conditions of Corporate Governance under Clause 49 of the Listing Agreement.**

To The Members of Reliance Energy Limited.

We have examined the compliance of the conditions of Corporate Governance by Reliance Energy Limited for the year ended 31st March 2005 as stipulated in Clause 49 of the Listing Agreement of the Company entered into with the Stock Exchanges in India.

The compliance of conditions of Corporate Governance is the responsibility of the management. Our examination was limited to procedures and implementation thereof, adopted by the Company for ensuring the compliance of the conditions of Corporate Governance. It is neither an audit nor an expression of opinion on the financial statements of the Company.

In our opinion and to the best of our information and according to the explanations given to us, except for Board composition as disclosed under Note to Table 1 of Corporate Governance Report, we certify that the Company has complied with the conditions of Corporate

Governance as stipulated in the above mentioned Listing Agreements.

We state that no investor grievances are pending for a period exceeding one month against the Company as per the records maintained by the Shareholders/Investors' Grievances Committee.

We further state that such compliance is neither an assurance as to the future viability of the Company nor the efficiency or effectiveness with which the management has conducted the affairs of the Company.

For <b>Haribhakti &amp; Co.</b> Chartered Accountants <b>Chetan Desai</b> Partner Membership No. 17000 Date: April 14, 2005 Place: Mumbai	For <b>Price Waterhouse</b> Chartered Accountants <b>Partha Ghosh</b> Partner Membership No. 55913	For <b>Chaturvedi &amp; Shah</b> Chartered Accountants <b>C. D. Lala</b> Partner Membership No. 35671
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