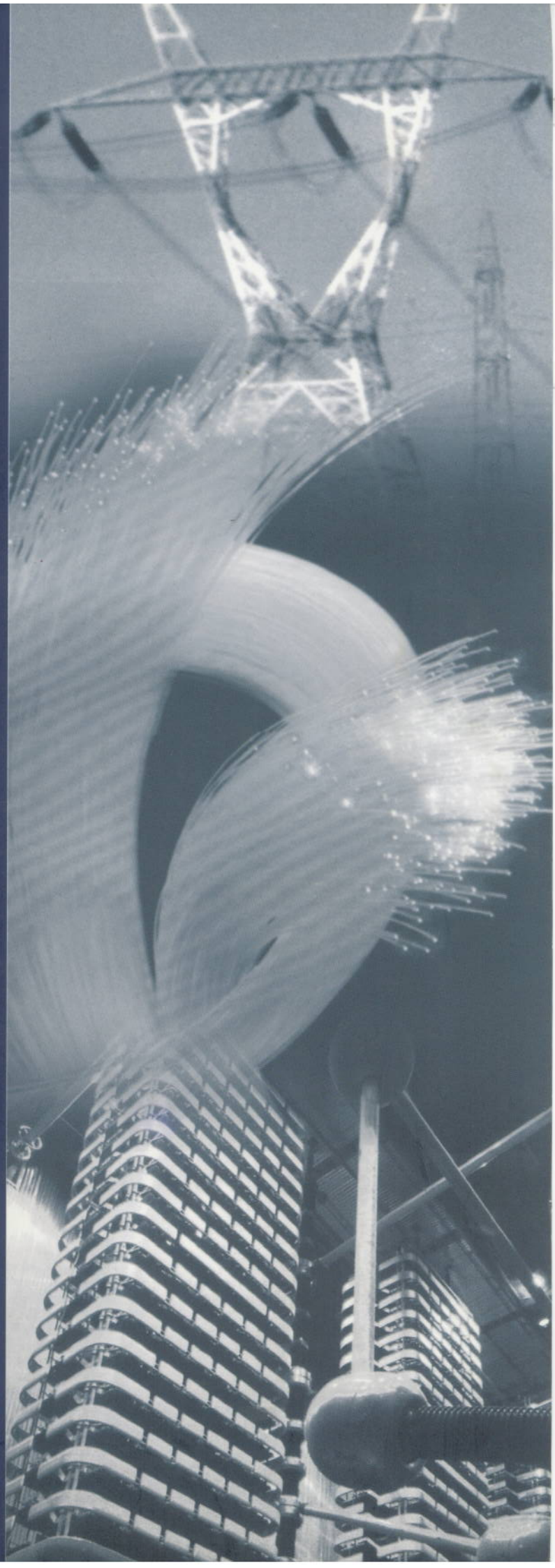


ANNUAL REPORT  
2000 - 2001



Power Grid Corporation  
of India Limited





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## MISSION

**Establishment and Operation of Regional and National Power Grids to facilitate transfer of power within and across the regions with reliability, security and economy, on sound commercial principles.**

# POWERGRID's QUEST FOR EXCELLENCE IN TELECOMMUNICATIONS

**Diversifying into telecommunication  
to mobilise additional resources  
to establish much needed National Grid.**

- To establish broadband Telecom Network over extensively spread Transmission Infrastructure.
- Commenced as Infrastructure Provider-II with an eye on National Long Distance operation in the long run.
- Introduce other Value Added Services

#### **Managed network services**

#### **Data centers**

#### **Entertainment**

- To tap a significant market share of the Voice and Data market being offered by liberalisation of national long distance operation.
- Implement 14,000 Kms. network connecting 56 major cities within 2 to 3 years.

Bandwidth available on :

- ◆ Delhi-Chandigarh
- ◆ Delhi-Jaipur
- ◆ Gooty-Bangalore-Salem
- ◆ Jabalpur-Itarsi-Dhule
- ◆ Kishenpur-Moga
- Extend telecom network to serve uneconomic and backward areas for the benefit of the common man.
- Would offer total solution and cater to the specific needs of the customers.

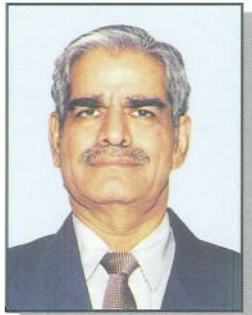




# BOARD OF DIRECTORS



**Shri R.P. Singh**  
Chairman and Managing Director  
Since 23.08.1997



**Shri A.I. Bunet**  
Director (Personnel)  
Since 09.08.2001



**Dr. V.K. Garg**  
Director (Finance)  
Since 17.09.1997



**Shri Bhanu Bhushan**  
Director (Operations)  
Since 13.11.1997



**Shri S.C. Misra**  
Director (Projects)  
Since 01.09.2001

## Bankers

- Indian Overseas Bank ● Union Bank of India ● Bank of Baroda ● State Bank of Hyderabad ● State Bank of Travancore ● State Bank of India ● State Bank of Patiala ● State Bank of Bikaner & Jaipur ● Central Bank of India ● Corporation Bank ● Canara Bank ● Oriental Bank of Commerce ● Syndicate Bank ● Dena Bank ● State Bank of Mysore ● Punjab National Bank ● Vijaya Bank ● Indian Bank



**Shri P.I. Suvrathan**

Part-time Director  
Since 18.05.2001



**Shri R. Ramanujam**

Part-time Director  
Since 23.02.2000



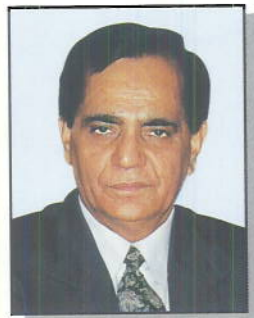
**Shri V.V.R.K. Rao**

Part-time Director  
Since 20.07.2001



**Shri J. Vasudevan**

Part-time Director  
From 28.12.99 to 18.05.2001



**Shri R.K. Madan**

Director (Projects)  
From 20.08.1996 to 31.08.2001



**Shri R.V. Shahi**

Part-time Director  
From 27.07.98 to 26.07.2001



**Dr. Ramesh Gupta**

Part-time Director  
From 27.07.98 to 26.07.2001

Company Secretary  
**Ms. Divya Tandon**

**M/s D.P. Sen & Company**  
Chartered Accountants  
8/2 Karan Shankar Roy Road,  
Kolkata-700001

**M/s Venugopal & Chenoy**  
Chartered Accountants  
4-1-889/16/2, Tilak Road,  
Hyderabad-500 000

**M/s Hingorani M. & Company**  
Chartered Accountants  
35, Netaji Subhash Marg,  
Darya Ganj, New Delhi-110002

**Registered Office :** B-9, Qutab Institutional Area, Katwaria Sarai,  
New Delhi-110 016

# OBJECTIVES

**The Corporation has set following objectives in line with its Mission and its status as “Central Transmission Utility”:**

- Undertake transmission of energy through Inter-State transmission system.
- Discharge all functions of planning and coordination relating to Inter-State transmission system with -
  - (i) State Transmission Utilities;
  - (ii) Central Government;
  - (iii) State Governments;
  - (iv) Generating companies;
  - (v) Regional Electricity Boards;
  - (vi) Authority;
  - (vii) Licensees;
  - (viii) Transmission licensees;
  - (ix) Any other person notified by the Central Government in this behalf.
- Establish/augment and operate all Regional Load Despatch Centres and Communication facilities.
- To facilitate private sector participation in transmission system through Independent Private Transmission Company/ Joint Ventures.
- To assist various SEBs and other utilities in upgradation of skills & sharing of expertise by organising regular conferences, tailor-made training workshops directed towards specific technological and O&M areas and extending laboratory facilities for testing purposes etc.
- Restoring power in quickest possible time in the event of any natural disasters like super-cyclone, flood etc. through deployment of Emergency Restoration Systems.
- To provide consultancy services at national and international level in transmission sector based on the in-house expertise developed by the organisation.
- Efficient Operation and Maintenance of Transmission systems.
- To participate in long distance trunk telecommunication business ventures.

Microwave tower at Kayamkulam





## CHAIRMAN SPEAKS

AT THE 12<sup>th</sup> ANNUAL GENERAL MEETING  
HELD ON 13<sup>th</sup> AUGUST, 2001



Ladies and Gentlemen,

**POWERGRID has completed another eventful year characterised by its excellent performance of the existing business and achieving steady growth, driven by further capacity addition programmes and diversification to Telecom business.**

### STRATEGY

The focus of our strategy remains as **Establishment and Operation of Regional Power Grids and interconnecting these grids to provide not only reliable and cost effective transmission service but also to utilise the scarce generating resources in an optimal manner keeping in view the wide regional disparity.** Such inter-regional links shall also create backbone of the National Grid.

Our transmission network provides physical connectivity among several nodes widely dispersed across the nation, creating right of way along the transmission lines. This right of way coupled with the existing communication infrastructure of our transmission system gives us an opportunity to create synergy between transmission & telecom technologies so as to exploit the high growth potential of telecom business and create shareholders' wealth.

POWERGRID has also evolved and demonstrated a very effective disaster management system to minimise the impact of natural calamities on the transmission lines by restoring the power flow in the quickest possible time.

The company also envisions its catalytic role in the development of SAARC grid for international exchange of power, which would ultimately facilitate extending the boundaries of SAARC grid to connect to other countries like Myanmar, Thailand, and Kazakhstan etc. for optimal utilisation of resources over a long-term.

We, being one of the largest transmission utilities in the world, are committed to take up R&D activities and apply such developments in keeping our operations at par with the world-class utilities.

As the Central Transmission Utility of the country, POWERGRID is also facilitating infusion of private investment in transmission sector to bridge the gap in resource mobilisation, for accelerated development of this essential infrastructure.

### GROWTH HIGHLIGHTS

In Central Transmission Sector, we continue to expand the network of our transmission system that has touched the level of 40,000 ckt. Kms., this year. By the end of the financial year 2000-01, the total investment in the company has grown to Rs. 14,690 Crores, with an annual turnover of Rs. 2,683 Crores. The company's performance from the year 1992-93, since it started commercial operation, has been commendable. During the intervening period, about 20,000 ckt. Kms. of EHV transmission lines have been added to the national network thus doubling its transmission network to **about 40,000 Ckt.kms and transformation capacity has gone upto about 34,000 MVA from about 12,000 MVA.** It is worth mentioning that this has been achieved with a marginal addition of only 4% in the manpower. This growing productivity of POWERGRID can also be assessed from the fact that profit per employee has gone up from **Rs. 4.5 lakhs in 1992-93 to Rs. 10 Lakhs in 2000-01.**

In Telecom, we are poised to exploit the commercial potential of the already available optical fibre network of 4,000 kms., by way of leasing bandwidth to telecom companies for which strategic alliance have been forged. Further push in this initiative is being provided by expanding this network to 14,000 kms., interconnecting 56 cities and operationalising this extended network by the year 2003.



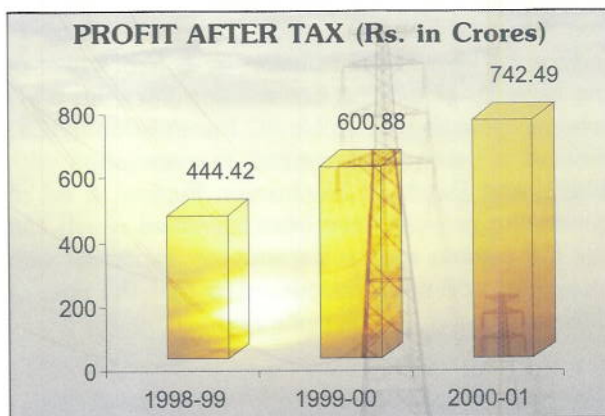
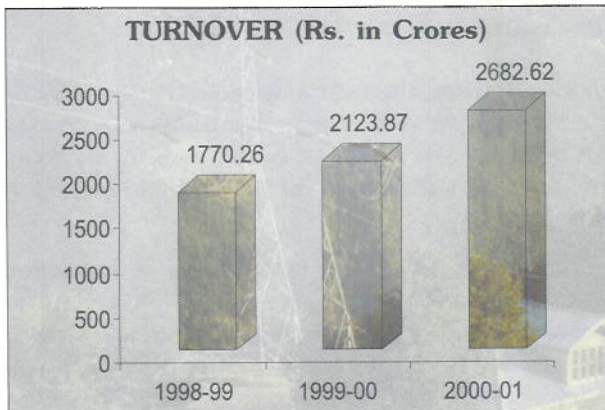
Hot line maintenance operation on 400 kV Indore-Asoj line



## PERFORMANCE HIGHLIGHTS

There has been an all round improvement in the performance of the company in the financial year 2000-01 with the key indicators registering impressive growth compared to last year:

- Gross Block at Rs. 13,261 crores up by 15.8% from Rs 11,450 crores.
- Turnover at Rs. 2,683 crores up by 26.3% from Rs. 2,124 crores.
- Profit at Rs. 742 crores up by 23.5 % from Rs. 601 crores.



The financial strength of the company has been duly acknowledged by domestic Credit Rating Agencies like **CRISIL** and **ICRA** by assigning “**AAA**” and “**LAAA**” ratings, respectively.

As you know, POWERGRID has been consistently rated in the highest bracket (“**Excellent**”) based on its actual performance vis-à-vis the set forth targets in MOU signed with Ministry of Power since 1993-94. It may be recalled that POWERGRID is the only PSU in Indian power Sector to receive the “**Prime Minister’s MOU Award**” for the two consecutive years i.e. for the years 1997-98 & 1998-99.

## MITIGATING REGIONAL POWER IMBALANCE

POWERGRID is establishing many inter-regional links to mitigate inter-regional imbalances in availability



MoU signing with Ministry of Power

of power. While doing so, adequate attention has been paid to effectively utilize the existing state owned inter-regional links. This has helped in meeting unserved demand of power deficit regions and optimum utilisation of available generation capacity in surplus regions. Earlier, the quantum of such inter-regional power transfers was insignificant and irregular, resulting in sub-optimal utilisation of precious generating resources. Concerted efforts have been made by POWERGRID to transfer surplus power of the Eastern Region to other power deficit Regions by setting up requisite transmission links. Consequently, the power transfer capacity from Eastern Region has increased from 400 MW in 1997 to present level of over 1500 MW. Presently, about **7000 million units (MU) of energy is being transferred annually from Eastern Region to other regions.**

Availability of additional links established by POWERGRID has significantly increased the exchange of power amongst the other regions. On all India basis, such exchange capacity has been enhanced by POWERGRID from 700 MW in 1997 to over 4800 MW as of now.

## OVERPOWERING DISASTERS

The transmission systems, world over, are vulnerable



POWERGRID was entrusted with the challenging time bound task of restoration of 10 nos. GEB Sub-stations damaged by the devastating earthquake which hit the region on 26th Jan.2001. Smt. Jayawanti Mehta, Hon’ble MOSP taking stock of the situation alongwith POWERGRID and GEB officials.



Dedication of restored sub-station of GEB, damaged by earthquake



Hon'ble Prime Minister addressing the audience at the restored site to natural calamities like storms, tornadoes, landslides, earthquakes, floods etc. Recognising the adverse effect of such failures of transmission lines, POWERGRID has equipped itself to restore transmission systems in the quickest possible time through deployment of Emergency Restoration Systems (ERS), thereby minimising the impact of failure of power on the economy and public.

POWERGRID has deployed a dedicated and adequately trained team at various strategic locations to manage such disasters, on immediate basis.

The devastation caused by cyclone in Gujarat in (June, 1998) and Orissa (October, 1999) as well as the earth quake in Gujarat (January, 2001) were tackled by POWERGRID on war footing and normalcy was restored within few days which otherwise would have taken several months.

### TECHNICAL EXCELLENCE & RESEARCH INITIATIVES

Operation and Maintenance techniques deployed by POWERGRID conform to latest developments around the world. Recently, Software based interpretation techniques and Reliability Centred Maintenance have been introduced for achieving maximum availability and minimum outages. Dynamic testing of relays, Dynamic Contact Resistance Measurement on circuit breakers, third harmonic leakage current measurement on lightning arresters, Thermo-vision scanning of switchyard with new generation thermo-



Inspection of Regional Laboratory, Hyderabad

vision cameras, Frequency Response Analysis (FRA) for transformers and reactors, Tan delta measurement for bushings and windings, CTs, CVTs etc. are some of the new techniques introduced for condition monitoring.

POWERGRID, a learning organisation, is committed to undertake R&D activities & apply the same to achieve efficiency & economy that go along with such efforts. An R&D project, which was taken up in association with IIT, Kharagpur, for Real Time Data Simulator (RTDS) is in the process of application in two Regional Load Despatch Centres. In order to reduce the cost of transmission by enhancement of the capacity of existing transmission lines, an R&D scheme consisting of Flexible AC Transmission (FACT) devices is being implemented in association with BHEL and Deptt. of Electronics. Further, a set of generating projects have been identified which can use the existing surplus transmission capacities with minimum additional resources so that the cost of delivered power can be optimised.



220 kV Switchyard at Wagoora Sub-station

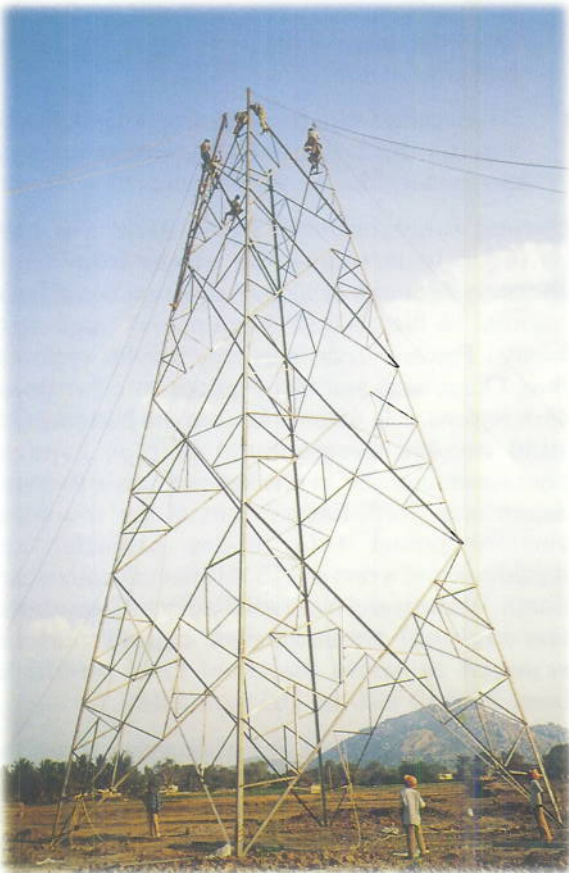
### PROVIDING EXPERTISE TO OTHER UTILITIES

In course of executing its projects from concept to commissioning & thereafter operating and maintaining the same, POWERGRID has acquired



the competence comparable to global standards. Its Engineering, Contracting, Financial and Project Management expertise covering EHV AC systems, HVDC installations, EMS/SCADA and Communication facilities involving State-of-the-Art technologies are comparable to those available elsewhere in the world. Thus, it is in a position to offer its expertise to utilities at a global level.

POWERGRID has been offering its technical and project management expertise to various power utilities in the country. In fact, the international consultant M/s Merz & McLellan, UK have associated POWERGRID in the consultancy assignment for improvement of transmission system in Orissa. To tap the opportunities in this area, Business Development, as an exclusive function in POWERGRID has achieved a cumulative Turnover of **Rs. 63 Crores** recording an average annual growth rate of **30%**, over the last five years.



Tower Erection work in progress

### PROJECTS IN HAND

POWERGRID, an ISO 9001 company, having in-house expertise in all specialised areas of transmission with systems upto 800 KV AC,  $\pm$  500 KV HVDC, Gas Insulated Sub-stations, Static Var Compensation, Series Capacitors, etc., continues to apply one of most

advanced and effective Integrated Project Management and Control System (IPMCS) to ensure expeditious project implementation, in a cost effective manner. To reduce the project implementation time & cost optimisation, POWERGRID has taken many steps which include, standardization of tower designs, project data & specification preparedness in advance along with Geographical Survey and Geo-technical Investigations, simultaneous action for tendering and project approval, preparation of bid documents of international standards with least scope for disputes, etc.

POWERGRID has the distinction that all of its Transmission schemes associated with Generation Projects have been completed ahead of commissioning of generating units, avoiding bottling up of precious power.

### GENERATION LINKED PROJECTS

Transmission systems associated with Tehri Hydro-Electric Project (HEP), Nathpa Jhakri HEP and Talcher STPP are some of the major generation linked projects that are under construction. The Tehri transmission project costing Rs. 662.71 Crores, is progressing as per schedule, matching with the generation project. For Talcher STPP of NTPC, a 1500 km long HVDC bipole link with capacity of 2000 MW is under construction for evacuation of power from Eastern Region to Southern Region. The project costing Rs. 3865 Crores, is progressing well and is expected to be commissioned ahead of schedule.

### GRID STRENGTHENING PROJECTS

Due to weak sub-transmission and distribution system, load growth is severely affected in some states, leading to sub-optimal utilisation of available generation and the transmission system. POWERGRID conducted intensive system studies to diagnose the sub-optimal operation of the regional grids. POWERGRID also identified several system improvement schemes across the country, which are under different stages of construction. Some of the major grid-strengthening schemes, include LILO of Bongaigoan-Malda at



Pile Foundation work in progress in Talcher Transmission System

Siliguri, LILO of Bongaigaon-Malda 400 kV line at Purnea, [Allahabad & LILo Kanpur], Agra (PG)-Agra (UP) 400 kV D/C, 220 kV/11kV new Sub-station at Chakarpur(Gurgoan), Talcher-Meramundali 400 kV D/C, Bokaro-Tenughat 220 KV D/C Transmission line, LILo of Kolaghat-Rengali at Baripada, [Bhiwadi & LILo Ballabgarh], Meramundali-Jeypore, 400 kV D/C Kolhapur-Mapusa System etc.

### INTER-REGIONAL LINKS

As already mentioned, one of the most important objectives of POWERGRID is to establish the national grid, interconnecting all the power regions. To utilize the generated power optimally, the power surplus regions have to be interconnected to power deficit regions. In this direction POWERGRID has already implemented various AC/ HVDC inter-regional links. Presently, major schemes under implementation, are 2000 MW HVDC bipole East-South Interconnector-II, 1000 MW AC Raipur-Rourkela, and 500 MW HVDC East-North Sasaram-Biharshariff. POWERGRID has advanced the commissioning of a part of the Sasaram HVDC back-to-back link i.e. Biharshariff-Sasaram-Sarnath 400 kV AC line by six months facilitating transfer of additional power to the tune of about 300 MW from Eastern Region to Northern Region in radial mode. Once the Sasaram HVDC Back-to-Back station is completed, it will become part of the 500 MW Sasaram HVDC Back-to-Back link. The other projects on the anvil are East-North interconnector-II (Sasaram) costing Rs. 350 crores and Jeypore-Gazuwaka-II costing Rs. 763.80 Crores etc.

### UNIFIED LOAD DESPATCH & COMMUNICATION FACILITIES

POWERGRID has undertaken implementation of State-of-the-Art Unified Load Despatch and Communication (LD&C) facilities throughout the country. Unified LD&C facilities is one of the basic pre-requisites for economic despatch of power between Regions/ States leading to effective and efficient management of Grids on real time basis. Apart from the systematic streamlining of operations for existing load despatch facilities after



Wrap cable stringing work on Gooty - Bangalore 400 kV line

their take-over, POWERGRID is establishing Unified Load Despatch & Communication facilities in all the five regions with an estimated cost of about Rs. 2000 Crores. The Load Despatch and Communication projects in Northern and Southern regions are expected to be completed progressively by 2002 and in other regions (East, West & North East) from the year 2002 to 2004. Completion of these ULDC projects would be achieving an important milestone towards realising a National Power Grid.

### TASK AHEAD

#### DEVELOPMENT OF STRONG & VIBRANT NATIONAL GRID

A Transmission Plan framework has been evolved for strengthening the regional grids with ultimate objective of establishment of strong & vibrant National Grid to meet the generation addition program of about 1,05,000 MW during X<sup>th</sup> & XI<sup>th</sup> Plan. The major considerations while formulating perspective plan are:

- Creation of "Transmission Highways"(Corridors) from potential resources to major load centers for conservation of Right-of-Way and to achieve economy (cost/MW) in long-term;
- Development of a strong National Grid, flexible enough to accommodate uncertainty in Generation Plan to some extent.

A strong synchronous National Grid has been envisaged to evacuate the power from major generating resources including richly endowed hydro potential in North-East Region and large sized Thermal Power Plants in energy surplus region of Bihar, Orissa and Madhya Pradesh to other power deficit regions. The scheme for ultimate National Grid would involve development of high capacity transmission corridor in chicken-neck area (between Eastern and North-Eastern part of the country to evacuate power from hydro projects) and establishment of a ring of 765 kV lines interconnecting Eastern, Western and Northern Regions. **Cumulative Inter-regional transmission capacity of the proposed ultimate National Grid would be about 30,000 MW by the year 2012.**

**Based on the requirement of power evacuation within and across the Regions, it is estimated that an investment of about Rs. 70,000 Crores shall be needed to augment the transmission system during the X and XI Plans(i.e. from financial year 2002-03 till 2011-12).** It has been assessed that POWERGRID would be able to mobilise about Rs. 41,000 crore, while balance shall be met through private investment. POWERGRID, as the CTU, will identify inter-state transmission lines to be implemented by private sector and then select the private investors/ promoters through competitive bidding. The private sector (Transmission Licensee)



will finance, construct, operate and maintain the identified transmission system.

### EMBARKING INTO TELECOM BUSINESS

The liberalisation of the Indian telecom sector together with POWERGRID's own requirement and capability to construct telecom infrastructure, positions POWERGRID to exploit the lucrative telecom business. The convergence of power sector with telecommunication will enable POWERGRID to create additional economic value by stimulating the development of the Indian Telecom Sector by making available low cost, high quality telecom infrastructure to the benefit of the national economy, to telecommunication users of all types and also to the consumers of electricity. POWERGRID has a distinct advantage to diversify into long distance telecom business because it can capitalize upon its right of



Signing of 1st Capacity Agreement for Telecom business

way, supplemented by a pool of technical manpower having expertise in Telecom and other infrastructural advantages. This will create significant shareholder value through leveraging of existing assets because growth in telecom sector outstrips that of the utility sector. Various utilities across the world have diversified into this business and are operating successfully and gainfully. Majority (about 60%) of such utilities are Transmission utilities.

The Telecom capability of POWERGRID has been already demonstrated by a successful video conferencing between Delhi and Chandigarh through POWERGRID's telecom link, which was inaugurated by **Hon'ble Prime Minister in August 2000**.

POWERGRID appointed reputed international consultants, IVO Power Engineering, Finland, PricewaterhouseCoopers, UK and Allen and Overy, UK to prepare a business plan and advise POWERGRID regarding diversification. Keeping in view the recommendation of the consultants, POWERGRID has developed its plan. To start with, POWERGRID has initiated action for creating base network with capital investment of about **Rs. 1000**

**crores**, which is being funded by the World Bank.

POWERGRID has already been granted the **Infrastructure Provider-II license** from Government of India for leasing the bandwidth capacity available in its Unified Load Despatch and Communication projects and on the proposed telecom network. Under this phase, it is establishing about 14,000 km of optical fibre network interconnecting 56 major Metros/Cities by 2003 to operate capacity Business and Value added Services.

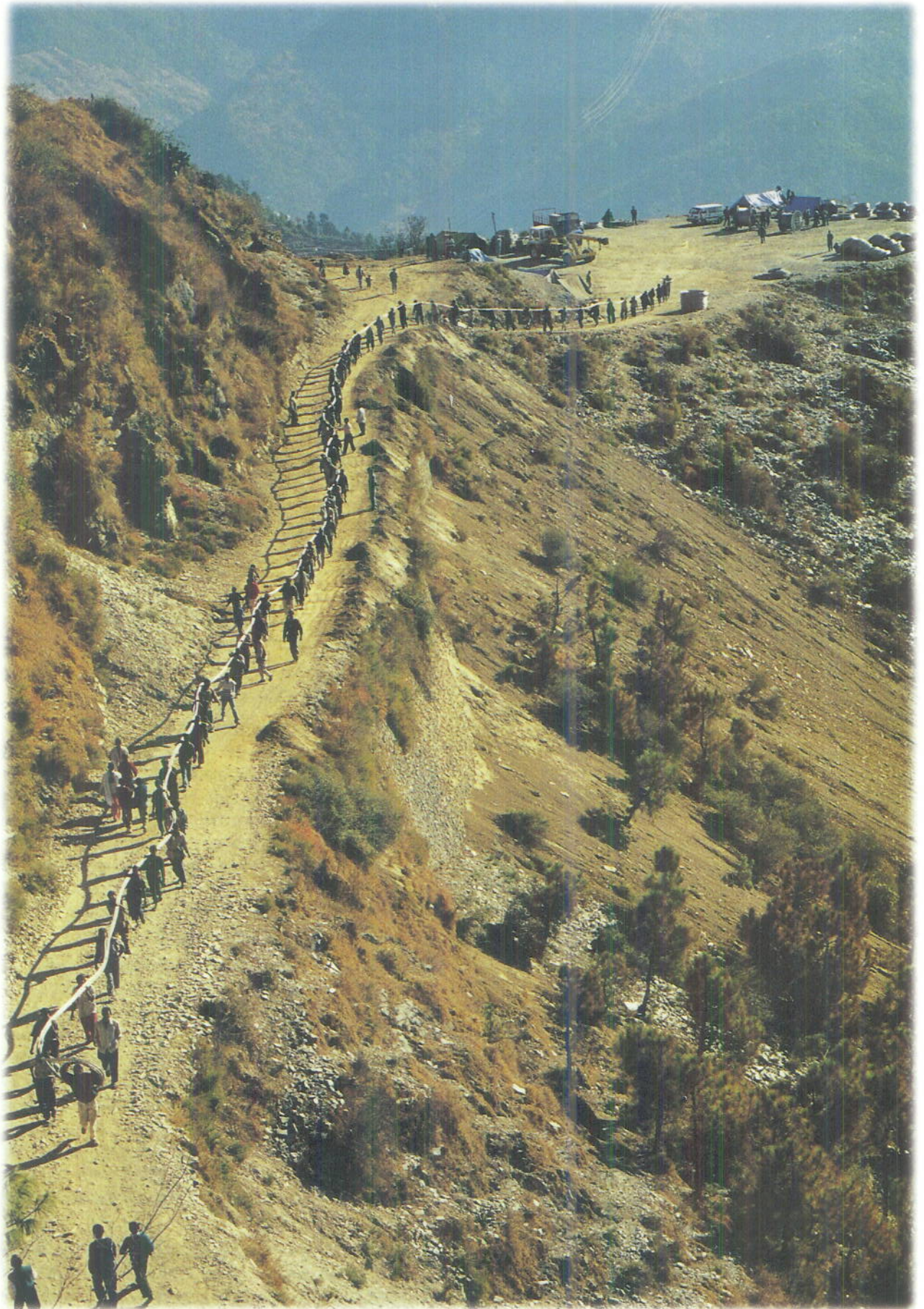
POWERGRID is also planning its entry into the National Long Distance Operation (NLDO) by having strategic relationships with strong international / national telecom players. It has been assessed that the revenue potential of the domestic Telecom market including voice and data is about Rs 13,200 crores as on date, which is going to go up to Rs 53,750 crores by FY 2010. To become a full-fledged NLDO operator in India, it is expected that about 50,000 kms. of Optical fibre network will be needed to be set up. This would need an investment of about Rs. 3,500 Crore within a period of five years from the effective date of becoming an NLDO. While, POWERGRID has geared up to roll out at least 14,000 kms of optical fibre network on its transmission lines with an investment of about Rs. 1,000 crores including telecom equipment, the balance shall need to be mobilised from private participation by forming Joint Ventures.

### GLOBAL COMPETITIVENESS

POWERGRID is an **ISO 9001** certified company having in-house expertise along with technological and managerial calibre covering all the specialised areas of transmission systems. The transmission system availability is maintained consistently **over 98%** at par with international utilities and the corporation is one of the "**largest transmission utilities**" in the World, which speaks of POWERGRID's capabilities of operating in the globally competitive environment.

As described earlier, with its in-house expertise of global scale and standards in the area of Engineering, Contracting, Project management, Financial Management etc., POWERGRID is geared to become a global entity by seizing business opportunities available in the international markets. POWERGRID is working jointly with Merz & McLellan & Price Waterhouse, U.K. and has also joined hands with M/s KEMA Consultancy, an organisation of international repute in the area of System Coordination and Control, to share the expertise to tap international market.

State-of-the-Art technologies applied in POWERGRID's projects and its increasing activities in the field of R&D are expected to expose it to join and deal with similar organizations of international repute.



Serpentine view : Conductor being transported by human chain in tough hilly terrain in Nathpa Jhakri Transmission System





CMD addressing the Press after the conclusion of AGM

To establish transmission systems on Build, Own, Operate and Transfer basis, proposals are solicited from private investors to meet expansion requirements of transmission sector. Such solicitation involves selecting POWERGRID's Joint Venture partners as well as Independent Private Transmission Companies. POWERGRID having garnered the capabilities of world class operations, shall be able to deal with such global level players on equal footing.

The company's leading role in the direction of establishing a SAARC grid is also evidence of its international commitments.

#### FORGING JOINT VENTURES

As already brought out, the primary rationale to have private participation is impelled by the huge capital investment requirement to be mobilised by POWERGRID in transmission and Telecom diversification. In order to ensure private investment, forming Joint Venture Companies with private investors is one of the established route. This is being followed by many private and public sector companies in various areas, be it manufacturing or infrastructure. Such Joint Ventures not only bring in much needed financial resources, but also instil State-of-the-Art technologies and Management Systems.

POWERGRID has already started soliciting proposals for such Joint Venture formation in transmission sector. Selection of a Joint Venture partner to execute the transmission system worth Rs 1200 crores associated with prestigious international project, viz. Tala Hydro Electric Project in Bhutan is in advance stage of finalisation. This experience will lead POWERGRID to solicit more such Joint Venture proposals for large and complex projects.

In order to tap the expanding domestic telecom market, POWERGRID intends entering into Joint Venture arrangements, which would also necessitate

use of transmission system owned by various SEBs/ State Transmission Utilities to enhance the reach of such telecom networks. Many states have evinced interest in forming Joint Venture Company with POWERGRID for exploiting such opportunities.

#### NAVRATNA STATUS AND POWERGRID

Based on its impeccable performance, POWERGRID has been recognised as "Mini-ratna" PSU under Category-I in October, 1998 and delegated enhanced financial and administrative powers. However, these delegations are not sufficient to facilitate the expansion and diversification milestones set by the company. Therefore, we have requested Government of India to accord Navratna status to the company, which is under consideration.

#### OUTLOOK

We are caught in the midst of an economic slow down and global recession. This has posed a challenge to inject huge capital in the infrastructure including power sector to accelerate economic growth. POWERGRID could however continue its endeavour for infusion of such huge capital in central transmission sector expecting marked reduction in its outstanding receivables, which have crossed the alarming level of about seven month's billing. The power sector reforms and securitisation of outstanding dues are expected to mitigate this problem.

The country has entered into the second generation of economic reforms, throwing open all the commercial activities not only to domestic but also to global competition. Though "Transmission Business" is a natural monopoly, we are ready to face any future challenges on the basis of our core competencies & effective performance.

We continue to look forward to a better future through optimal and efficient use of the available resources and improving upon our own benchmarks, year after year.

(R.P.Singh)

Chairman and Managing Director

Date : 13th August, 2001  
Place: New Delhi

## DIRECTORS' REPORT

FOR THE 12<sup>th</sup> ANNUAL GENERAL MEETING HELD ON 13th August, 2001

To,  
The Members,  
Ladies and Gentlemen,

It gives me immense pleasure to present on behalf of the Board of Directors, the 12th Annual Report of Power Grid Corporation of India Limited (POWERGRID), together with the Audited Statements of Accounts for the financial year 2000-01.

### PERFORMANCE DURING THE YEAR 2000-01

#### MoU PERFORMANCE

POWERGRID, based on the results for the FY 2000-01, has achieved "Excellent" Performance rating as per its MoU entered with Ministry of Power for the 8th successive year. It is pertinent to mention that MoU score for the year 2000-01 has surpassed the scores for year 1997-98 and year 1998-99 when company received prestigious Prime Minister's MoU award for being amongst top Ten PSUs in the country.

#### OPERATIONAL EFFECTIVENESS

As on March 31, 2001, POWERGRID is operating a total of 39,425 ckt. kms. of transmission lines consisting of 563 ckt. kms. of 800 kV; 1,630 ckt. kms. of HVDC system, 28,201 ckt. kms. of 400 kV; 6,952 ckt. kms. of 220 kV; 2,042 ckt. kms. of 132 kV lines & 37 ckt. kms. of 66 kV lines alongwith 67 Sub-stations

with transformation capacity of 33,973 MVA. Despite ageing of transmission systems, which necessitates more attention and maintenance, average availability of transmission systems during the year was maintained at 98.85%, comparable to the best International Standards. POWERGRID's transmission network carried around 40% of total power generated in the country .



Maintenance team of Bhadrawati Sub-station taking the Tan delta, capacitance measurement of 400 kV CT during AMP activities

POWERGRID's maintenance techniques conform to latest developments around the globe and are comparable to best international utility practices. Recently, Software based interpretation techniques



A glance of the new sub-station at Jalandhar



A team from Durg (Raipur) attending the arrest of Oil leakage near CT terminal block in 80 MVAR Bus Reactors of Bhilai-Bhadravati line at Bhilai sub-station

and Reliability Centred Maintenance have been introduced for achieving maximum availability and minimum outages. The new techniques introduced for condition monitoring include Dynamic testing of relays, Dynamic Contact Resistance Measurement of circuit breakers, Third Harmonic Leakage current measurement on lightning arresters, Thermo-vision scanning of switchyard with new generation thermo-vision cameras, Frequency Response Analysis (FRA) for transformers and reactors etc. POWERGRID's engineers have achieved a remarkable feat by developing software to make SOREL Disturbance Recorder, computer compatible. This software is planned to be applied to 55 Disturbance Recorders available in various Regions, leading to improved reliability and substantial savings to the Corporation. Regional Oil Test Labs at Hyderabad and Durgapur continued with their excellent services not only to POWERGRID, but also extended the facility to other agencies like State Power Utilities, Railways etc. and earned additional revenue. Central Insulating Oil Testing Lab at Hyderabad has also been **accredited by National Accreditation Board for Laboratories (NABL)**.

### PROJECT IMPLEMENTATION

Looking at the mammoth responsibility entrusted to POWERGRID, the company gives utmost importance



Microwave tower foundation work in progress at Neyveli



Pile Foundation work in progress in Talcher Trans. system

for implementation of its projects without any time and cost over run. Many a projects have been completed ahead of schedule as an outcome of effective Integrated



View of erected tower  $\pm$  500 kV HVDC Line in Talcher Transmission System

Project Management Concept being followed by the Corporation, which involves rigorous monitoring of project implementation at various levels. As a result of efficient management of the construction activities, stringing of **1470 ckt. Kms.** of transmission lines has been completed during the year 2000-01, exceeding the MoU target of **1077 ckt. Kms.**

During the year, 1172 ckt. Kms. of transmission lines have been completed, including Kishenpur-Moga 800

kV line (ckt.-II). A new 400/220 kV sub-station at Jalandhar has been established, besides extension of many existing sub-stations. During the year, five new power transformers with aggregate transformation capacity of **1575 MVA** have been added to the system. Other major accomplishments include completion of Nathpa-Jhakri- Abdullapur 400 kV D/C line, RAPP-B-Anta 220 kV S/C line, Neyveli-Bahoor 220 kV S/C line, Agartala-Kumarghat 132 kV S/C line, Jalandhar-Dasuya 220 kV D/C line etc. The completion of Agartala-Kumarghat 132 kV S/C line, against all odds like severe law and order problems in the state of Tripura, demonstrates POWERGRID's capability to undertake and complete projects in adverse circumstances.



Stringing work  $\pm$  500 kV HVDC Line in Talcher Transmission-System

In addition to above, construction activities regarding 6,270 ckt. kms. of transmission lines of various voltage levels and 10 sub-stations are under progress. Transmission systems associated with Talcher STPP-II, Tehri HEP and Dhauliganga HEP are some of the major generation linked projects under construction. Construction works in respect of Inter-regional links like East-South inter-connector project, East-North HVDC inter-connector at Sasaram, and East-West AC inter-connector Raipur-Rourkela transmission system etc. are also in full swing. New generation linked schemes being undertaken include transmission systems for Tala HEP, Rihand-II, Seepat, Ramagundam-III and Dulhasti HEP etc.

Inadequate and weak sub-transmission and distribution systems have hampered the load growth in some states, leading to sub-optimal utilisation of available generation and EHV grid. For gainful

utilisation of generating resources, POWERGRID has identified several new system improvement schemes across the country. Such on-going grid strengthening schemes include System strengthening in SR, Kolhapur- Mapusa transmission system, Jamshedpur-Rourkela, Series compensation at Kanpur-Ballabgarh etc. and the new schemes which are under active consideration include Bihar grid strengthening scheme, Kahalgaon-Biharshariff line, Ranganadi-Ziro line, establishment of Hiriyur Sub-station, Series capacitors for Nagarjunasagar-Cuddappah & Nagarjunasagar-Gooty etc.

### FINANCIAL MANAGEMENT

As an outcome of the company's prudent financial management, the bottom line moved upwards in financial year 2000-01 to Rs 742.49 crores from the previous year's figure of Rs 600.88 crores thereby registering a growth of 23.57 %. Following the same trend, the Turnover increased to **Rs. 2682.62 Crores compared to the last years figure of Rs. 2123.87 crore resulting in an increase of 26.31%**. At the end of the financial year 2000-01, the company has an impressive Gross asset base of Rs. 13,260.92 crores. Paid-up capital of the company, including Share Capital Deposit as on 31st March, 2001 stands at Rs. 3063.88 crores, as against that of Rs. 3049.54 crores as on 31st March, 2000. POWERGRID's asset base is supported by a healthy gearing of 43%. It is also pertinent to mention that the Return on Net Worth for the company has increased to 11.89 % in 2000-2001 from 10.83 % in 1999-2000, creating significant value for the shareholders.

### Dividend

The Directors recommended the lumpsum dividend of Rs. 50 crores for the year ended 31<sup>st</sup> March, 2001. Further, as per the Income Tax Act, 1961, a provision of Rs. 5.10 crores for tax on dividend has also been made.

### Transfer of Profit to Reserves

Appropriation of profit towards General Reserve amounting to Rs. 650 crores and Rs. 186.52 crores towards Bonds Redemption Reserve has been proposed.



CMD, POWERGRID handing over the dividend cheque to Hon'ble Minister of Power, Govt. of India



### Directors' Responsibility Statement

The Directors declare that:

- In the preparation of the annual accounts, the applicable accounting standards have been followed.
- The Directors had 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 at the end of the financial year and of the profit or loss of the company for that period.
- The Directors had taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding the assets of the company and for preventing and detecting fraud and other irregularities.
- The Directors have prepared the annual accounts on a going concern basis.

### Capital Investment and Fund Mobilisation

During the year 2000-01, POWERGRID has been able to mobilise the requisite resources to carry on its investment program to an extent of Rs. 1,576 crores. During the year, POWERGRID tied up a loan of US \$ 250 million from Asian Development Bank in December, 2000 for implementation of a group of transmission projects. Apart from tapping international market, POWERGRID raised about Rs 1096.50 crores from the domestic market through loans and Bonds.

### COMMERCIAL INITIATIVES

During the financial year 2000-2001, POWERGRID realised an amount of Rs. 2,395 crores registering an increase of 35% over the previous year. The company could successfully mobilise revolving letter of credit (LC) cover from various SEBs to the extent of 70% of the monthly transmission charges due from such SEBs. Thus, the availability of LC got enhanced to Rs. 124 crores during the financial year 2000-01 from Rs. 110.39 crores prevailing at the end of previous financial year resulting in growth of about 12%. In addition, there has been a considerable progress in liquidation of arrears and reduction in overall outstanding dues. However, in spite of concerted efforts, some of the SEBs could not liquidate their dues because of severe financial constraints, which has led to cumulative arrears of Rs. 1429 crores as on 31.03.2001.

Though the Govt. of India had sanctioned Central Plan Assistance-II of Rs. 345.96 crores in August, 1997, the release of funds has been rather slow. Till now, only Rs. 165.11 crores has been received leaving a balance of Rs. 180.85 crores. The lengthy process of Tariff notifications by CERC, that too limiting to part and provisional tariff has been cause of great concern to POWERGRID. This has also partly contributed to

accumulation of large outstanding dues. Tariff petitions in respect of 32 cases were filed with CERC during the financial year, out of which 25 have been approved for payment of provisional tariff amounting to Rs. 527.43 crores and the balance Tariff petitions worth Rs. 132.30 crores are still pending with CERC.

### BUSINESS DEVELOPMENT

The major Consultancy assignments currently being executed by POWERGRID include Installation of OPGW Cables on the Dahanu-Mumbai 220 kV Line for M/s. BSES valued at Rs.7.92 crores, turnkey execution of 110/11kV Pillaitheeruvasal Sub-station at Karaikal & loop-in-loop-out (LILO) of 110 kV S/C Tirpattinam-Sorakudi transmission line at Sorakudi Sub-station for Electricity Dept, Pondicherry valued at Rs. 8.8 crores. The corresponding Consultancy Fees are Rs. 95 lakhs and Rs. 1.94 crores, respectively.

POWERGRID is also providing Consultancy Services in the areas of Supervisory Control and Data Acquisition (SCADA), Energy Management System (EMS) and Distribution Management System (DMS) to various clients, viz. Delhi Vidyut Board, NDMC, Narmada Control Authority and Government of Pondicherry, etc. During year 2000-01, the consultancy fees earned through Consultancy Business has been Rs. 12.83 crores.



Underground installation of Optical Fibre cables

In the process of execution of ULDC projects, POWERGRID has gained valuable expertise & experience to utilize the same for expanding its business on the consultancy front. Reflecting the confidence, M/s KEMA-ECC, very well known for control center project consultancy assignments worldwide, has signed a MoU with POWERGRID towards partnership for providing consultancy services in this field at a global level.

## TOWARDS NATIONAL GRID

POWERGRID has evolved a perspective transmission Plan for short, medium and long-term for strengthening the regional grids with ultimate objective of establishment of National Grid. The major considerations while formulating perspective plan are:

- Creation of transmission highways from potential resources to major load centres for conservation of Right-of-Way and to achieve economy in the long-term.
- Development of a strong National Grid, flexible enough to accommodate uncertainties in Generation Plan to some extent.

POWERGRID has advanced completion of East-North AC link for evacuation of surplus power from Eastern Region and to provide relief to the Varanasi and adjoining areas. HVDC B/B Link at Sasaram, which is an important inter- regional link between Eastern and Northern region is under advance stage of construction. After completion of this link by the year 2002, the total inter regional power exchange capacity would increase to about 5000 MW.

POWERGRID has planned to double the capacities of Sasaram and Gajuwaka HVDC back-to-back links by establishment of another 500 MW blocks at both the places. These will facilitate smooth inter-change of power across the regions, which includes export of power from power surplus Eastern Region. Construction activities for Raipur–Rourkela 400 kV D/C AC link between Eastern and Western Region,

has commenced recently. The construction activities for 2000 MW East-South Interconnector-II HVDC Bipole link are in full swing and this project shall be instrumental in evacuation of power from Talcher STPP stage-II (2X500 MW) besides transfer of surplus power from Eastern region to power starved Southern Region.

### *Additional Inter-Regional Links by 2007*

A number of Mega Power Projects are being considered in North-Eastern, Eastern and Western Regions for development in next 6-7 years. POWERGRID has accordingly planned to take up transmission system associated with these projects like Hirma, Tala, Teesta, Kameng etc & East-North High Capacity 400 kV link (Purnea-Gorakhpur) etc. With the establishment of above inter-connections, the inter-regional power transfer capacity would increase to about 23,400 MW.

### *Long Term Inter-Regional Links*

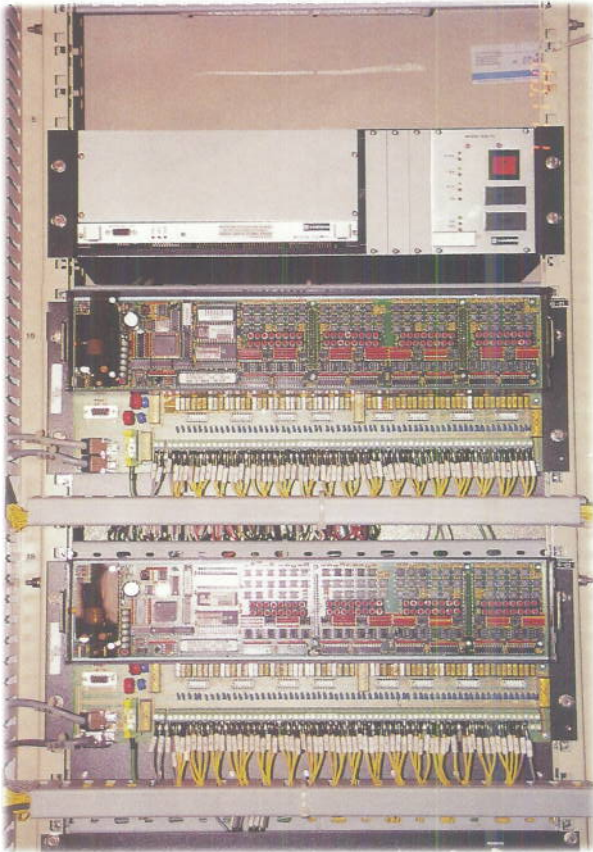
The scheme for ultimate National Grid would involve development of high capacity transmission corridor in chicken-neck area (connecting North-Eastern Region with the rest of the country) and establishment of a ring of 800 kV lines interconnecting Eastern, Western and Northern Regions. Cumulative Inter-regional transmission capacity of the proposed ultimate National Grid would increase to about 30,000 MW by the year 2012.

### *Unified Load Despatch & Communication Facilities*

POWERGRID has undertaken implementation of



800 kV Kishenpur-Moga Transmission line



Remote terminal unit (RTU) Panel

state-of-the-art Unified Load Despatch and Communication (ULDC) facilities throughout the country. ULDC facilities are one of the basic pre-requisites for economic despatch of power between Regions/States leading to effective and efficient management of Grids on real time basis.

ULDC schemes of Northern and Southern Regions are in advanced stages of implementation. The laying of fiber cable in Northern Region and Southern Region is completed with installation of more than 2500 kms of cable. The installation of Microwave communication Network has also made significant progress with cumulative commissioning of 20 Microwave links. The Factory Acceptance Test (FAT) for control center equipments for Northern and Southern Region have been completed successfully. Further, installation and commissioning of 14 control centers are completed in Northern Region. 120 Remote Terminal Unit (RTUs) in NR and more than 100 RTUs in SR were installed, during the year. ULDC projects in NR and SR are now expected to be completed by June, 2002.

During the year, POWERGRID has also taken up the implementation of ULDC projects in Eastern, Western and North-Eastern Regions. The detail engineering activities under different packages for NER is nearing completion. All the packages for the Eastern Region



Taking stock of POWERGRID's telecom venture – during an exhibition in Bhuj, Gujarat



Circuit breaker overhauling in progress





Sone River Crossing Tower of 400 kV D/C Biharshariff-Sarnath line

project were awarded except for Microwave Communication package. The tendering activities for EMS/SCADA packages for Western Region scheme have been initiated.

### VENTURING INTO TELECOM BUSINESS

POWERGRID's EHV transmission network of about 39,500 ckt. kms. criss-crosses the entire length and breadth of the country connecting the major metropolitan cities/ towns viz. Delhi, Calcutta, Chennai, Bangalore, Hyderabad, Mumbai etc. Hence, it provides an excellent infrastructure for stringing optical fibre cable, which can be used to set-up a high grade long distance telecom network of high capacity. This will maximise the returns to POWERGRID, which would be deployed for expeditious implementation of National Grid and will also accelerate application of Information Technology to urban and rural areas as well as increase the tele-density.

In addition to above, during the implementation of ULDC schemes, which involve state-of-the-art telecom equipments, more than 150 POWERGRID personnel in various levels have acquired sufficient and requisite expertise in planning, designing, implementation and O&M of telecom system. This will be of immense help and will be instrumental in establishing and O&M of telecom backbone network.

Keeping in view the international experience of

transmission utilities successfully diversifying into commercial telecom business and complexities involved, POWERGRID appointed reputed international consultants viz. IVO, Finland along with PWC, UK for defining, planning & implementing the diversification strategy to enter Telecommunication business.

In August, 2000, POWERGRID commissioned an optical fibre link between Delhi and Chandigarh, as a part of Northern region ULDC network which was inaugurated by Hon'ble Prime Minister. POWERGRID established its capability in the telecom field through a video conferencing over this link between Hon'ble Prime Minister in Delhi and Chandigarh with Chief Minister of Haryana and Governor UT, Chandigarh. **Further, POWERGRID has obtained Infrastructure Provider-II license from Department of Telecommunications on January 29, 2001 to pursue leasing of bandwidth capacity to various customers on its telecom network.** The Delhi-Mumbai optical fibre link of POWERGRID was launched on January 13, 2001 and expected to be commissioned by March, 2002, which en-route will link various commercial cities like Muradnagar, Moradabad, Lucknow, Vindhyachal, Jabalpur, Itarsi, Indore, Dhule, Nasik and Padga. POWERGRID is one of the early bird, who will be offering leasing of capacity on this link to various customers including Infrastructure Providers, potential NLDOs, Access providers, ISPs, Corporates etc.



# **POWERGRID's QUALITY POLICY**

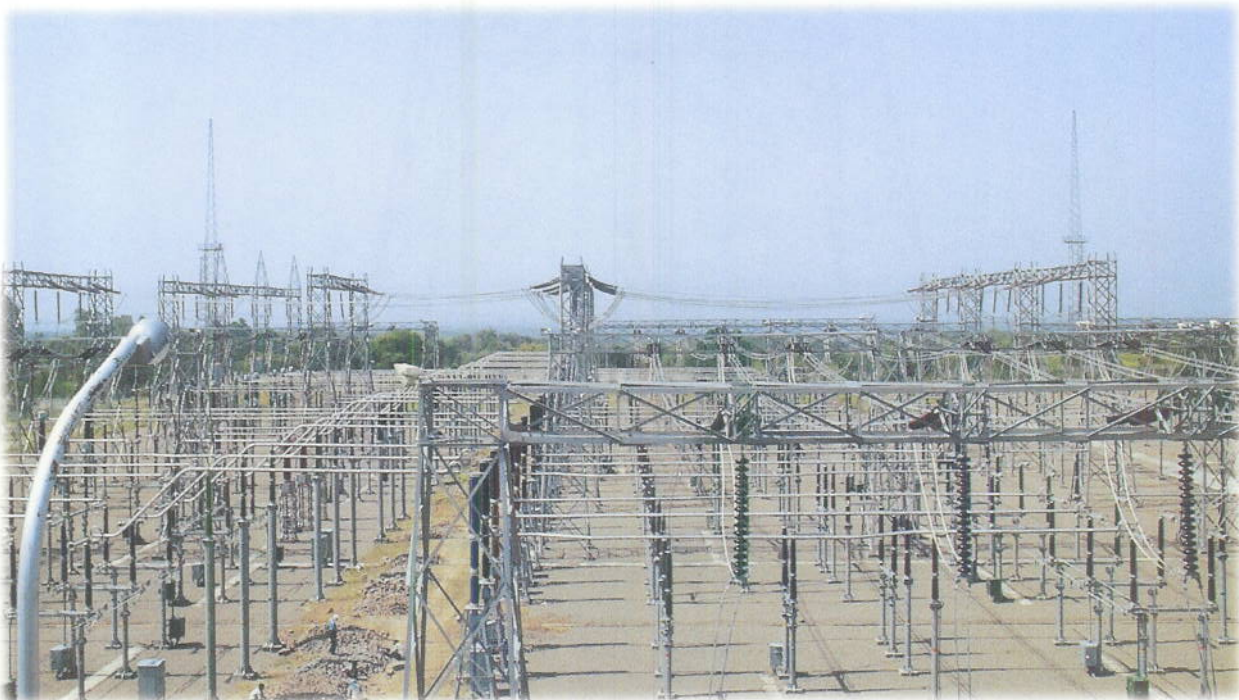
*“POWERGRID shall continuously strive to develop and maintain an efficient and effective ‘National Grid’ with due regard to time, cost, technology, value addition and social concerns in all its operations to the satisfaction of the stakeholders.”*



Launching of Mumbai-Delhi Optical Fibre Link Project in January 2001 at Mumbai

It is to mention that bandwidth capacity for commercial telecom business is available on Delhi-Chandigarh, Delhi-Jaipur, Jabalpur - Itarsi - Dhule, Kishenpur - Moga and Bangalore - Salem - Gooty. POWERGRID's extensive marketing efforts for generating business for leasing capacity have yielded

immediate results. Capacity Agreements with Service Fee of about Rs 5.81 crores per annum has been signed/ finalized with Bharti Telesonic for leasing bandwidth on Jabalpur- Dhule, Delhi - Chandigarh & Delhi - Jaipur telecom links and many more are in the pipeline. POWERGRID has also signed MOU with



Switchyard view of 400/220 kV Nalagarh Sub-station



View of HVDC suspension tower



major Telecom players such as M/s VSNL, BPL, S.Kumars, Tata, L&T, Spectranet, HFCL and Jain TV for mutual co-operation in the field of telecom.

POWERGRID plans to build up broadband optical fibre backbone telecom network of about 14,000 kms. by December, 2003 which will span entire length and breadth of the country. The network includes installation of about 2,700 Kms. of underground optic fibre to connect POWERGRID sub-stations to a centralised location in the nearby cities and to create Point of Presence (PoP)/ access links within the cities to cater to customers requirement. In the initial 1-2 year period, POWERGRID's telecom network will cover about 20 major metros, cities and towns of commercial importance and will be extended to 56 cities in 2-3 years time including North-Eastern Region. POWERGRID's road map for establishing telecom network in a phased manner includes: **Delhi-Mumbai by March, 2002, Hyderabad-Bangalore-Chennai by June, 2002, Delhi-Hyderabad by July, 2002, Hyderabad-Calcutta by September, 2002, Delhi-Calcutta by December, 2002.**

**The complete optical fibre network in the country connecting over 56 major metros, towns and cities, rural/ unserved areas including North-eastern State capitals will be completed by December, 2003.**

The project was approved by the Public Investment Board in its meeting held on 30<sup>th</sup> March, 2001 and is awaiting Cabinet clearance.

For National Long Distance (NLD) operations for laying of over 50,000 Kms. of optical fibre will be essential including setting up of number of tele-stations around the country at a cost of about Rs. 3,500 Crores. The telecom network of 14,000 kms. would need to be essentially established in either of the business option i.e. Infrastructure Provider-II or NLD venture. POWERGRID plans to give its core backbone network on lease to the NLDO JVC and simultaneously take an equity stake (26% to 49%) in the NLDO JVC. POWERGRID issued "Expression of Interest" on global basis for selection of JV Partner in last week of March, 2000. POWERGRID issued an initial Request for Proposals (RfP) to shortlisted seven parties on August 31, 2000. After issuing the RFP, the DOT announced the guidelines and terms and conditions for issuing NLDO license. Further, DOT/GoI also announced to issue license for fixed service providers (FSP) for various circles for telecom operators in the country. As per the assessment of the Consultants, POWERGRID will have to select a strong joint venture partner with a strong service provider background for NLDO operation which require modification in qualification requirement in

the RfP. POWERGRID is examining the pros and cons and after evaluating the success of IP-II business shall commence the process of selection of joint venture partner for NLDO business.

To further enhance its commercial value, POWERGRID envisages to establish linkages with international optical fibre network and in this direction is looking for a strategic partner to have a strategically located landing station in the country. For extensive connectivity with cities and towns and to reach rural/unserved areas, POWERGRID is proposing to have strategic alliance with various SEBs to utilise their T&D infrastructure. The proposals are under active consideration by various SEBs like UPPCL, TNEB, WBSEB, KEB, DVB, DVC, KSEB, etc. to develop State level Telecom network.

### IMBIBING INFORMATION TECHNOLOGY

POWERGRID, puts into use the state-of-the-art Information Technology Tools in its business operations and keeps abreast with the development. Information Technology is of paramount importance to the company as the Operational Units are spread across the country, generating vast amount of data to be transferred for the planning and execution of safe and stable Grid Operation. Information Technology is being utilised effectively in POWERGRID for quick decision making, which needs processing as well as on line availability of large volume of data. In recognition of this fact, Information Technology Implementation has been adopted as one of the performance parameters in POWERGRID's MoU with Ministry of Power for the year 2001-2002.

In line with its IT plan and Development Road Map, the Information Technology infrastructure in POWERGRID has been augmented. A Corporate wide INTRANET has been established in POWERGRID over its Wide Area Network Infrastructure enabling web based information exchanges amongst its Regional Establishments, RLDCs and Corporate Centre. MIS reports on various key functional areas such as Finance, Planning, Project Monitoring, Contracts, Commercial, Material Management etc are available on INTRANET for access across the organization. A Grid Parameter Monitoring System to monitor power generation, demand, actual delivery, grid frequency and inter-regional power exchanges has been developed in-house. These Grid parameters in respect of all the regions are available over the INTRANET to all users as decision support for proactive actions.

POWERGRID's own electronic mail communication system is being utilized as a cost effective and faster communication media. Further, the development of an Enterprise-wide Information System is in progress for integrating the company's core business processes.

## ATTRACTING PRIVATE INVESTMENT IN TRANSMISSION

In line with the Government of India guidelines, POWERGRID has taken conscious initiatives for encouragement of private sector participation in transmission and has identified two routes viz Independent Power Transmission Company (IPTC) and Joint Venture (JV). In JV route, private investor would enjoy a comfort of 26% equity sharing by POWERGRID in the project and of receiving tariff on cost plus basis whereas under IPTC route, 100% project equity shall be owned by private investor and tariff shall be decided through International Competitive Bidding process.

The selection of Joint Venture partner is being undertaken through Request for Selection (RfS) process. The selected Joint Venture partner shall enter into agreements with POWERGRID for construction and operation phases of the project through Shareholders' Agreement (SHA), Implementation Agreement (IA), and Transmission Service Agreement (TSA). POWERGRID has drafted bidding documents for JV route (viz. RfS, SHA, IA, TSA and transmission license), which were reviewed and finalised by consultants (M/s SBI Cap and M/s little & Co.). For IPTC route project, the bidding documents (viz. RfQ RfP, IA, TSA and transmission license) are being prepared by International Consultants M/s K & M Engineering & Consulting Corporation, USA appointed by ADB under Technical Assistance Programme to POWERGRID.

POWERGRID has taken up one Pilot Project each on JV and IPTC routes to attract private sector participation. Presently, the solicitation process for selection of JVP for specific transmission lines associated with Tala Hydro Electric Power Project through RfS Document is on and it is expected that JV Partner would be selected shortly. The other Pilot Project being taken up under IPTC route is Bina-Nagda-Dehgam 400 kV D/C line. The two-stage selection process, consisting of Request for



Inside view of Control Room, 400/220 kV Nalagarh Sub-station

Qualification (RfQ) for shortlisting of applicants and Request for Proposal (RfP) for final selection of successful Bidder for this project is currently under progress. The walkover/preliminary survey has already been completed for both the identified Pilot Projects.

In order to attract sustained interest of Bidders for Private Sector Participation in transmission, POWERGRID is inviting Expression of interest (EOI) on global basis from all interested parties for execution of Transmission line projects on IPTC route for a basket of projects expected to fructify during 2001-2012.

## INNOVATIONS AND INDUCTION OF NEW TECHNOLOGIES

Right from its inception, POWERGRID has been giving special emphasis on adoption of new technologies available around the globe for reduction in cost of energy. POWERGRID has taken initiatives in a number of power system areas, wherein adoption of latest technologies has resulted into an enhanced system performance. Notable among these are:



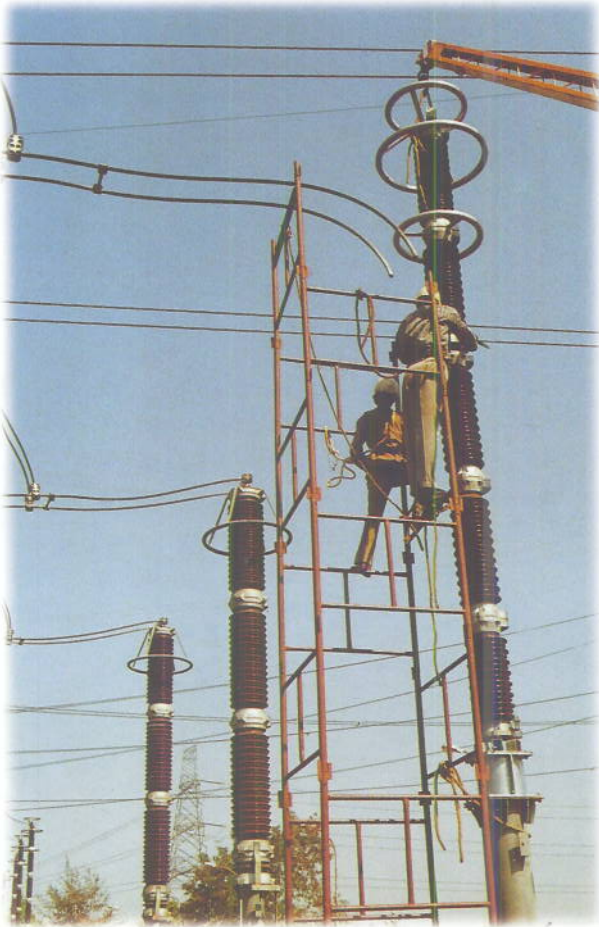
Series capacitors at Kishenpur Sub-station on 220 kV D/C Kishenpur-Pampore line

### Introduction of Series Capacitors at 400 kV Level

Introduction of Series capacitors at 400 kV voltage level is another technology up-gradation to provide benefits in terms of optimum utilization of existing transmission capacity. Recognising the utility of series compensation in Indian context, POWERGRID has chalked out a programme for installation of 18 no. of series capacitors at selected transmission corridors with an objective to enhance the transmission capacity of existing/planned transmission lines with minimum investment and time. The above series compensation would result in saving of about Rs. 1200 crores and conserving right-of-way by avoiding construction of new lines.

### FACTS

As a next step to Series capacitor, FACTS technology involves Thyristor controlled mechanism which helps in improving dynamic stability of the overall



An exclusive view of erection activities of 390 kV gapless LA in Jabalpur #2 bay at Itarsi

transmission system. POWERGRID is now contemplating to use the state-of-art Flexible AC Transmission system (FACTS) at 400 kV level on Kanpur-Ballabgarh line. This will be the first application of FACTS technology in the country at EHV level and shall be executed under the aegis of Ministry of Power and CEA in association with CPRI, Deptt. of Electronics and BHEL. In future, FACTS shall be installed on major inter-regional lines like Purnea – Muzaffarpur- Gorakhpur 400 kV D/c line under Tala transmission system and Raipur-Rourkela transmission system. Thus, this technology is going to play a major role in synchronising the National Grid.

#### **Prioritisation of Generation**

Keeping in view the need for adoption of co-ordinated approach in generation and transmission planning, POWERGRID has carried out a detailed exercise to identify new generation projects where basic transmission facility is either existing or is under implementation and only upgradation of the transmission systems or end-links is required. Prioritisation of generation projects in such locations would lead to minimisation of investment on transmission and thereby facilitating availability of

low cost power to end users. In this exercise, POWERGRID has identified about 7,840 MW of capacity addition for prioritisation requiring marginal investment of about Rs. 2,800 crores in transmission, which otherwise, would require about Rs. 9,800 crores, thereby rendering savings of about Rs. 7,000 Crores. Additional 3155 MW of power from generation projects have also been identified which can be evacuated with a meagre incremental investment of Rs. 1,500 crores on series compensation and some strengthening etc. Usually, this capacity addition would have necessitated an investment of Rs. 4,000 crores, thus resulting in saving of about Rs. 2,500 crores.

#### **Export of Power From Eastern Region**

In order to utilize available generating capacity to its full extent, POWERGRID has done a detailed exercise to estimate the quantum of available surplus power in Eastern Region in next two years and identify inter-regional links for implementation on urgent basis. It has been estimated that in energy terms, Eastern Region would have a surplus of 41,500 MUs per annum out of which only 10,000 MUs can be transferred through existing/ approved links. To transfer balance 31,500 MUs, various inter-regional links costing around Rs. 7,140 crores have been proposed for implementation on urgent basis. By transferring this energy, Eastern Region would be benefited by about Rs. 3,500 crores per annum towards its fixed cost of generation by avoiding backing down of generation and increased PLF. Supply of above energy to power deficit regions would in turn reduce the requirement of generation capacity addition by about 4,400MW in these regions, thus saving an investment of Rs. 17,600 crores.

Further, energy to the extent of 6800 MUs was transferred during 2000-2001 from power surplus Eastern Region to power starved regions against 5,500 MUs in the previous year, an increase of 22% over last year.

#### **Tuning of Power System Stabilizers (PSS)**

POWERGRID has taken initiatives for tuning the Power System Stabilisers (PSS) used in various generators, which would enhance the stability of large inter-connected regional grids. This exercise was undertaken for the first time in the country in association with M/s Power Technologies Inc., U.S.A, for tuning the PSS of Singrauli TPS and Chamara HEP. This transfer of knowledge has been gainfully utilized by POWERGRID in tuning the PSS of Uri HEP generators, thereby making a remarkable achievement.

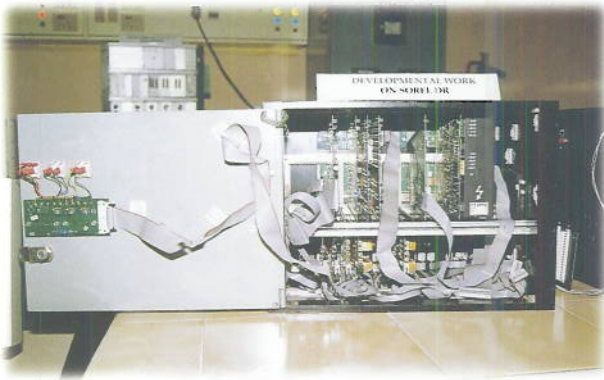
#### **In-house R & D Work**

To achieve the objectives of storing, processing and analysing disturbance outputs, Southern Region has



Demonstration of Tension Insulator replacement on HVDC line at Kanpur by NGC, UK





Sorel DR Software Development

developed computer interfacing of Disturbance Recorders type SOREL. This is in the process of implementation in various sub-stations and shall result in substantial savings.

#### **Inventory Control**

A detailed material codification exercise was carried out for all electrical items for inventory control through computerisation, which will help in quickly locating the availability of spare quantity in any region. This will go a long way in cutting costs as regard to procurement and storage of redundant inventory .

#### **Polymer Insulators**

POWERGRID has proposed utilisation of Polymer insulators at places where pollution and lightening problems are being faced. This will mitigate the

problem of insulator failure in polluted and lightening prone areas.

#### **DISASTER MANAGEMENT**

One of worst ever earth-quake rocked the Kutch area of Gujarat resulting in severe damage to around 40 sub stations of GEB comprising 200 kV, 132 kV & 66 kV voltage levels. Considering the gravity of situation, POWERGRID took immediate actions to provide relief & rehabilitation in the aftermath of one of the India's worst natural disasters and sent teams of technical manpower for providing support to GEB for the restoration of affected sub-stations. In addition to this, DG sets of various capacities were rushed to provide power supply for essential services such as water works, street lighting etc. Further several trucks loads of relief materials in the form of food items, medicines, water, clothes were sent to affected areas. POWERGRID took up 10 sub-stations for restoration, including civil works, construction of new control room buildings, etc., wherever required, as well as electrical works including supply of damaged equipments for 220 kV sub stations at Anjar, Nakhatrana & Nanikhahar, 132 kV sub stations at Samkhiyali and 66 kV sub station at Khedoi, Madhapar, Lokhand, Dudhai, Nakhatrana, Kotda (Chakkar).

The expenditure incurred by POWERGRID on the above said relief works has been donated to the State of Gujarat as a gesture of goodwill. In addition to the above, all the employees of POWERGRID contributed two-days' salary for giving relief to the affected people of Gujarat.



ERS towers with collapsed tower in the foreground while one 400 kV tower is seen in the backdrop



The team spirit behind POWERGRID's impeccable performance



## CONTRACTS MANAGEMENT

POWERGRID has been continuously refining its strategy based on the latest prevailing market trends. During the financial year 2000-2001, POWERGRID has awarded contract for 80 packages aggregating to Rs. 1,446 crores under multilateral as well as domestic funding. This includes contracts for overhead OPGW worth Rs. 46 crores for Delhi-Mumbai link under POWERGRID's Diversification into Tele-communication business and Rs. 282 crores for System Co-ordination and Control (SC&C) Projects for North-Eastern Region and Eastern Region.



A vigilance workshop in progress

## REMAINING VIGILANT

POWERGRID, consistently endeavours to ensure proper utilisation of available resources. The thrust area during the year was in the sphere of preventive vigilance, wherein, various vigilance workshops were organised to impart knowledge on various ethical values for good governance. Such workshops emphasised about moral code of conduct and values to achieve our goal. POWERGRID also strove to incorporate procedural improvements in the areas of contract labourers, Quality Assurance activities etc.

## HUMAN RESOURCE MANAGEMENT

POWERGRID pursues the philosophy that human value is the most vital asset of the organization and accordingly its policy is focused on development of



Negotiation between Management and Union in progress

human potential through sustained efforts in providing adequate skill upgradation, career enhancement and job rotation towards ultimate objective of attaining the organization goals. These HR policies and practices have enabled the Corporation to manage the growth and expansion of the Corporation through a contingent of 7000 employees.

## Employees' Welfare

During the year, POWERGRID made a significant mark by implementing the revision in wages and emoluments in respect of the employees. The employees have also been provided with the assistance to acquire learning aids like Personal Computers and for getting internet access, which in the long run shall facilitate improving the knowledge base of the employees. During the year, the

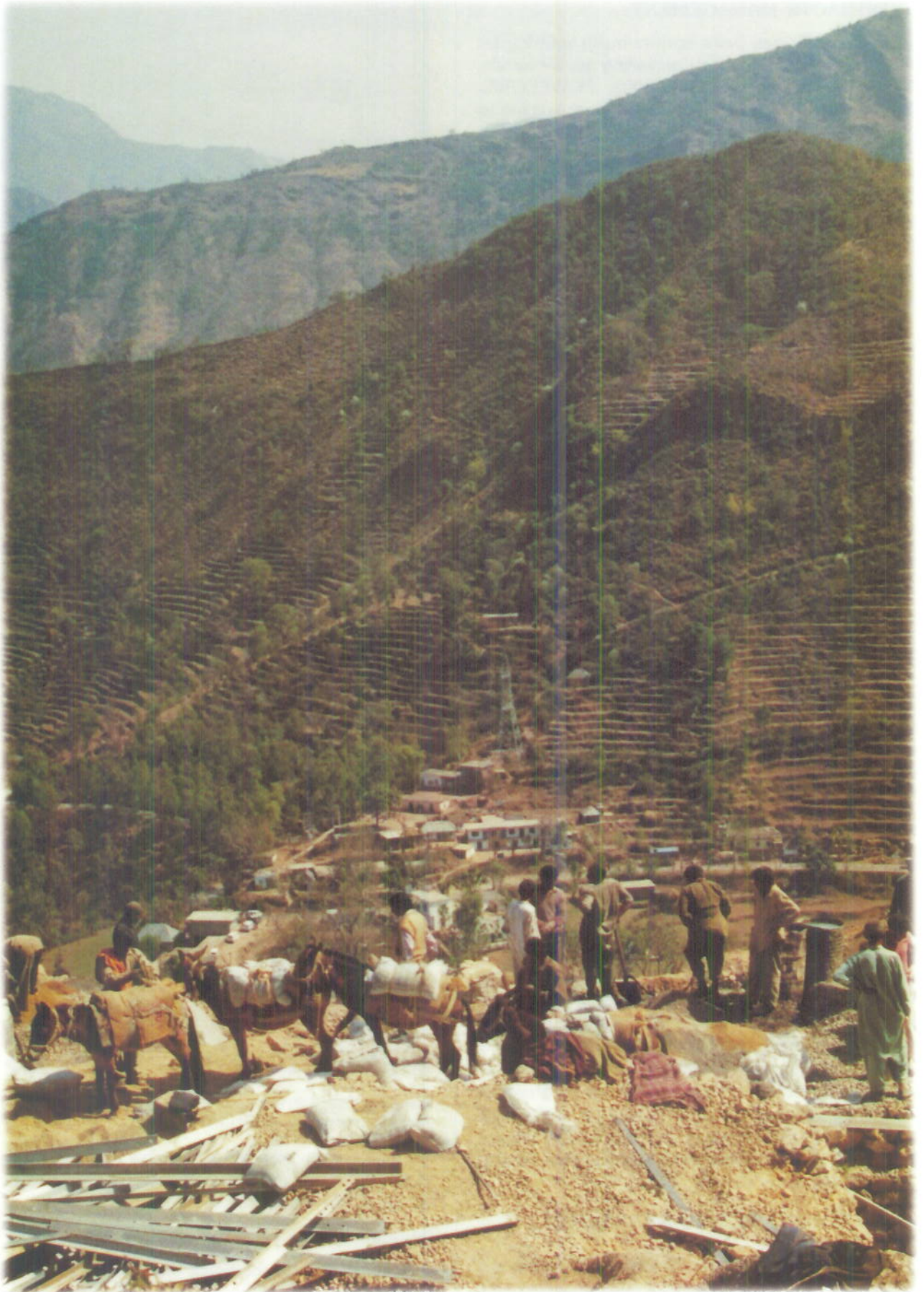


Members of the WRTS cultural troupe (Karma Nrutya) sharing cheerful moments with MOSP, CMD & ED

foundation stone was laid by Hon'ble Union Minister for Power for construction of official accommodations for the employees of corporate centre.

## Implementation of Social Justice

In line with the constitutional mandate to take care of the interest of Scheduled Castes, Scheduled Tribes and Other Backward Classes, POWERGRID has



Meeting challenges – transporting men & material at Hill tops for construction of line



implemented effective measures to monitor induction at the prescribed percentage. Additionally, for welfare of the employees in the reserved categories appropriate measures have been introduced for redressing their grievances, complaints and providing training. In respect of promotion too, appropriate consideration is given to such employees. Invariably a member of SC and ST is nominated on committees for recruitment, promotion, accelerated career growth schemes etc. of the employees. During the year, National Commission for SC & ST and Parliamentary Committee on Welfare of SC & ST had reviewed the implementation of Govt. policies for welfare of SC & ST in POWERGRID.

#### Citizen Charter

In pursuance of the Govt. directive to formulate and operationalize Citizen Charter, POWERGRID has also established its Citizen Charter carrying the Corporation's objectives, specific commitments for improved services and grievance redressal machinery of the organization. The charter is open to public scrutiny and notifies the access mechanism for Company's obligations, plans, systems and procedures.

#### Rajbhasha

In pursuance of Govt. of India policy to implement the Govt. directives for promoting Rajbhasha across the Corporation, POWERGRID has made intensive efforts. The nodal officers in each of the establishments make sincere efforts in encouraging



Closing ceremony of Hindi Pakhwada

employees to adopt Rajbhasha as their official communication medium. One of the Directors of the Company is a Chairman of the Rajbhasha Co-ordination Committee of the Corporation and Chairman & Managing Director also personally monitors the progress for 100% achievement of the Govt. directives. CMD, POWERGRID was awarded the prize of Rajbhasha Chal Vajayanti Shield instituted by Ministry of Power, Govt. of India. As a part of celebration of Rajbhasha Golden Jubilee celebration a National Conference was organized by POWERGRID at Hyderabad during 14-16 September 2000. In the All India test of Hindi Stenography & Typing Examination conducted by Rajbhasha Department, Govt. of India, New Delhi, POWERGRID employees were amongst the

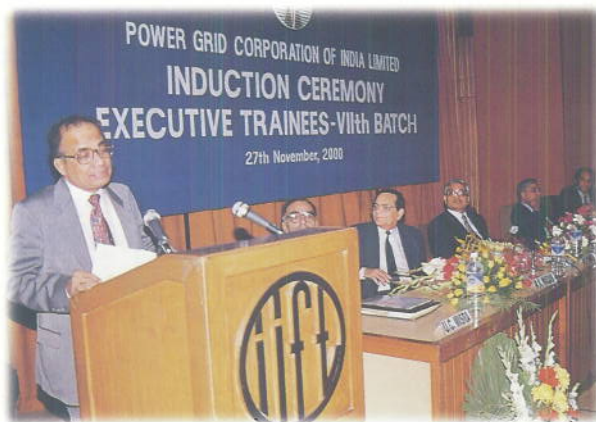


'10 Toppers' in the All India Examination which is a remarkable achievement.

### Training and Development

It has been the philosophy of POWERGRID that the development of its employees is the prime mover for the sustained development of the organization and as such Human Resource Development in POWERGRID has been accorded top priority. Together with the development of technical and managerial skill, major emphasis has been given in grooming employees as good citizens with sound value system. During the year, 1596 employees have been trained. In addition, innovative and cost effective training methods like Video Based Training have been carried out to supplement the normal training programmes.

In order to impart training in a scientific and planned manner Organizational Need Assessment (ONA) and Training Need Analysis (TNA) was conducted, based on which the training programme for the next 4 years was formulated. 43 Executive Trainees and 57 Diploma Engineer Trainees, recruited during the year, are undergoing induction level programme of one year. In addition to this, POWERGRID took up programs to share knowledge & trained personnels of other power utilities by organising seminars/workshops in different O & M fields.



Shri Vittal addressing the fresh ETs during induction ceremony

### Organisation Restructuring

With commencement of commercial operation in 1992-93, POWERGRID adopted Regional Organisation Structure in line with organization of Regional Grid system in Power sector except in Northern Region which was bifurcated into NRTS-I and NRTS-II due to its geographical spread and work culture.

In Southern Region, about 4,630 ckt. kms. of transmission lines and 5 Sub-stations are under construction in addition to the existing 6,847 ckt. Kms. of transmission lines and 17 sub-stations. The increase in volume of construction activities coupled with tight schedule has necessitated for reorganisation of Southern region. Accordingly, Southern Region Transmission system has been reorganized as Southern Region Transmission System-I (SRTS-I) and



Inauguration of SRTS-II office by Hon'ble Union Minister of Power

Southern Region Transmission System-II (SRTS-II) with Regional Headquarters at Secunderabd and Bangalore, respectively. The reorganization facilitated in better monitoring of O&M and Construction activities, faster decision making and more focused attention on critical activities.

### TOWARDS THE GREENER ENVIRONMENT

In order to address issues related with environment, POWERGRID has integrated environmental and social management procedures into its corporate operations through its Environmental and Social Policy and Procedures (ESPP). The ESPP shows company's commitment to deal with environmental and social issues relating to its transmission projects and lays out management procedures and protocol to address them.

With the implementation of ESPP, environment and social management plan has been made an integral part of the project execution process. Some of the actions taken for implementation of ESPP include: Finalisation of Rehabilitation Action Plan (RAP) for Sasaram & Kolar Sub-stations, Socio-Economic Survey of Allahabad, Purnea, Hosur & Bhiwadi sub-stations, Social Assessment and Management Plan (SAMP) for Siliguri sub-station, Public Consultation for East-North inter-connector, Sasaram HVDC, Talcher-II Transmission System, Talcher-Meramundali transmission line were done at various locations.

It is pertinent to mention that POWERGRID's sincere efforts towards environment protection has finally started bearing fruits that may be gazed from the appreciation and awards it had received viz: Indo-German Greentech Environment Excellence Award etc.

### ASSURING QUALITY

POWERGRID endeavours to implement appropriate quality measures at every stage from conceptualisation of project till commissioning and subsequently during operation phase, leading to optimum utilization of resources and overall reduced cost. To achieve these objectives, our Quality Policy



A view of 400 kV S/c Dulhasti-Kishenpur T/L near Patnitop (J&K) in perfect harmony with nature

is formulated to provide the best possible time bound quality services commercially available to valued customers, to protect environment and to keep abreast of the latest innovation in technology in development of human resource.

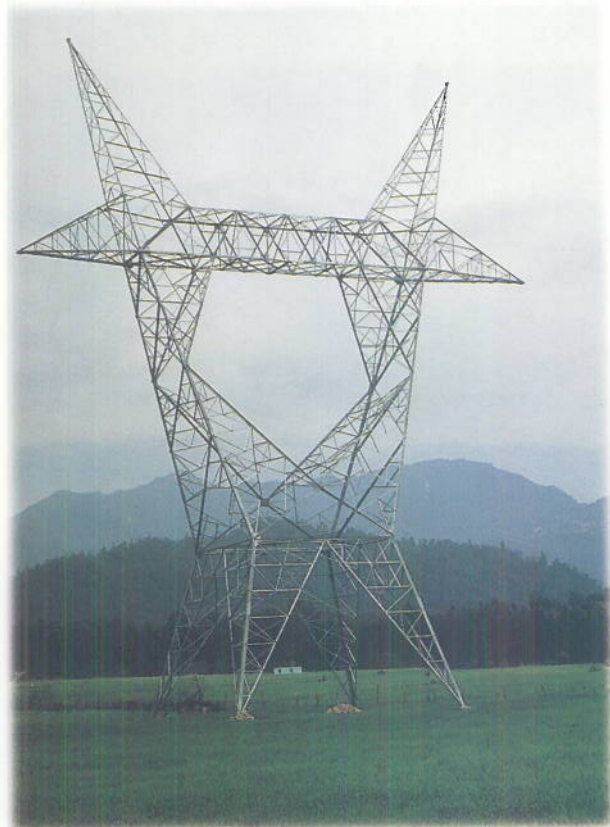
Recent years have witnessed unprecedented growth and competition in the market and customers' expectation are continuously rising. Six-sigma and TQM methods are being adopted by POWERGRID to identify the potential strength and develop action plan for continuous quality improvement. The workshops on familiarization to TQM and Six-Sigma techniques for performance improvement of organization are being held. It may be noted that POWERGRID is the first Power utility in India to have been accredited with ISO-9001 certification in 1994 and has been re-certified by EAQA, U.K. The Certificate is valid up to 31.03.2002.

## REGIONAL HIGHLIGHTS

### *Northern Region-I (NR-I)*

The transmission network of 9,078 ckt. kms. was maintained at an average line availability of 99.66% and outage rate of lines was contained to 4.75 per line per year. During the year, a total of 134 ckt. kms. of 400 kV & 220 kV transmission lines and extension of 400/220 kV Bassi sub-station were the major activities completed. At present 363 ckt. kms. of 800 kV, 194 ckt. kms. of 400 kV & 114 ckt. kms. of 220 kV transmission lines are under construction. Apart from this, construction of 800 kV sub-station

at Meerut and 400 kV sub-stations at Allahabad & Bhiwadi alongwith 220 kV bay at NTPC, Anta are also being carried out. The commissioning of 400/



800 kV tower of Tehri-Meerut Transmission system



Control Room Building of 400/220 kV Abdullapur Sub-station

220 kV sub-station at Allahabad and East-North AC link, associated with prestigious Sasaram HVDC back to back project are expected in the first quarter of next financial year & shall be instrumental in transferring surplus power from Eastern Region to power starved Northern Region.

The Region with all the dedication, is executing System Control and Co-ordination project in the Region, which is one of the largest project of its kind in the world. 1000 kms. of Optic Fibre stringing and installation of 120 nos. of RTUs was successfully completed, as against MoU target of 1000 kms. of Optic Fibre stringing and installation of 100 RTUs respectively. The activities for the installation of

SCADA system and Microwave tower are also going on war footing basis. The project is progressing for completion by 06.2002. First Sub-LDC under SC&C scheme of Northern Region has been commissioned on 22.7.2000 at 400 kV S/S of BBMB.

New T/L Maintenance fixtures were developed for replacement of Suspension insulators from V-strings and tension insulators from Quadruple Tension strings without lowering conductors at tension towers and catching off conductors at suspension towers. This Maintenance fixture has been developed in association with NGC-UK under collaboration agreement shall result in substantial cost and time savings.

### **Northern Region - II (NR-II)**

The Region maintained its transmission network of 4,871 ckt. kms. at an average line availability of 99.03%. During the year, 287 ckt. kms. of Kishenpur-Moga-II 800 kV line, 344 ckt. kms. of Nathpa-Jhakri-Abdullapur 400 kV D/C line and 346 ckt. kms. of 220 kV lines including Jalandhar-Dasuya 220 kV D/C line and Jalandhar-Hamirpur 220 kV D/C line alongwith 400/220 kV sub-station at Jalandhar were completed. In consultancy area, POWERGRID has bagged the consultancy work for turnkey execution of 220/66 kV Manimajra sub-station of Chandigarh alongwith associated transmission lines.

It was a matter of great pride for the Region as well as for POWERGRID that five workman, viz., Shri Nidhia



Sunset view of 400 kV D/C Uri-Wagoora line with ERS





Dignitaries at the dedication ceremony for 400 kV D/C Biharsahriff-Sasaram-Sarnath line of East-North Inter-Connector-I Project

extreme cold weather conditions, which would otherwise have require 50 to 60 days for restoration of power in the valley.

**Eastern Region (ER)**

The Region maintained transmission network of 5,613 ckt. kms. at an average line availability of 99.50% and outage rate of lines of 5.18.

During the year, Ganga River Crossing at Hathidah (Biharshariff-Begusarai 220 kV D/C line of BSEB) and Biharshariff 400 kV A/C sub-station extension bays under East-North HVDC B/B project Sasaram were commissioned. The construction activities for the East-North inter-connector-I 500 MW HVDC back-to-back project at Sasaram and prestigious HVDC bi-pole terminal at Talcher are in full swing. To facilitate transfer of surplus power from Eastern Region on priority basis, POWERGRID has taken up Biharshariff - Sasaram - Sarnath 400 kV AC line and this link is expected to be commissioned in the first quarter of next financial year. Apart from these, construction activities for Binaguri 400/220 kV sub-station, Purnea 400/220 kV sub-station, Talcher-Meramundali 400 kV D/C line, Jamshedpur-Rourkela 400 kV D/C line and Extension of Malda, Farraka & Jeypore sub-station are also progressing as per schedule. In addition to this, a modern state of the art Oil test laboratory established at Durgapur started functioning since 1<sup>st</sup> October, 2000.

Ram, Shri Chajju Ram, Shri Anchal Singh, Shri Rattan Lal and Shri Bhagwan Dass were conferred with the prestigious Prime Ministers Shram Vir award for the year 1999-2000 for showing exemplary courage and dedication during the period of restoration of power supply to Kashmir valley through 400 D/C Uri-wagoora transmission line in the year 2000.

POWERGRID successfully deployed Emergency Restoration System (ERS) for restoration of one tower of Kishenpur-Pampore 220 kV D/C line of PDD, J&K, which was blasted by militants near Banihal in February, 2001 resulting in complete darkness in the valley. The line was restored within seven days with the concerted efforts of NR-II employees under

**POWERGRID'S RELIEF & RESTORATION WORK IN GUJARAT**

- In view of the heavy rain, the possibility of an earthquake, and the possibility of a cyclone, the restoration work in Gujarat is being carried out on a priority basis.
- The restoration work in Gujarat is being carried out on a priority basis.
- The restoration work in Gujarat is being carried out on a priority basis.

**INSPECTION OF DEVASTATED AREA**

**RESTORATION**

S.No.	Name of the District	Name of the Agency	Value of the work (Rs. Lakhs)
1.	ANAND	ANAND	10.00
2.	AMRITSAR	AMRITSAR	10.00
3.	AMRITSAR	AMRITSAR	10.00
4.	AMRITSAR	AMRITSAR	10.00
5.	AMRITSAR	AMRITSAR	10.00
6.	AMRITSAR	AMRITSAR	10.00
7.	AMRITSAR	AMRITSAR	10.00
8.	AMRITSAR	AMRITSAR	10.00
9.	AMRITSAR	AMRITSAR	10.00
10.	AMRITSAR	AMRITSAR	10.00

POWERGRID's relief & restoration work in Gujarat, at a glance

### Western Region (WR)

The Region maintained transmission network of 9,181 ckt. kms. at an average line availability of 99.58%. Outage rate of lines was contained to 4.30 per line per year. During the year 2000-2001, the construction activities have started for Kolhapur-Mapusa 400 kV transmission system including sub-station at Mapusa, which is the first Central Sector Transmission Project for exchange of power with Goa. After completion, Mapusa will be the first 400 kV sub-station of Goa. Simultaneously, construction works for first 400 kV AC synchronous link i. e. D/c Raipur-Rourkela 400 kV line between ER and WR has also been initiated. As a milestone in consultancy, Western Region has bagged three consultancy awards from Goa Electricity Department (GED) in the state of Goa. Further, in line with the spirit of the organisation, a team from Western Region had rushed first to Gujarat for restoration works during earth-quake.

### Southern Region (SR)

The transmission network of 6,847 ckt. kms. was maintained at an average line availability of 99.74% with outage rate of lines contained to 3.59.

During the year, Neyveli-Bahour 220 kV S/c line was completed. Some of the major projects under construction are Talcher-Kolar HVDC bipole link, Vijayawada-Uppalapadu-Nellore 400 kV line, Madurai-Trivendrum 400 kV line and Kaiga-Narendra 400 kV line. In addition to this HVDC terminal station at Kolar and 400/220 kV AC sub-stations at Kolar, Hosur, Nellore and Trivendrum are under various stages of construction.

Regional Oil test lab, Hyderabad has been doing excellent work since inception and it has again marked its presence by developing software for Sorel Disturbance Recorder during July, 2000. This software shall be distributed to all 55 nos. of Disturbance Recorders available in all the Regions, which shall ultimately lead to substantial savings to the Corporation.

Southern Region SC & C project is progressing at a



World Bank team at site monitoring the progress of SR-ULDC project



POWERGRID towers – searching higher altitudes

fast pace and installation of 1,879 kms. of Fibre Optic cable alongwith installation of 106 nos. of RTUs were completed as against MoU target of 1,000 kms. of Fibre Optic cable and 100 nos. of RTUs respectively. Under this scheme, Digital Microwave Communication has also been established in the state of Kerala and Andhra Pradesh.

### North-Eastern Region (NER)

Transmission network of 3,835 ckt. kms. is operated and maintained by the region in the face of grim law & order situation. During the year, Agartala-Kumarghat 132 kV S/c line (104 ckt. kms.) was completed well ahead of schedule.

In spite of very poor financial health of the constituent states, NER realised Rs. 75.44 crores which is more than double of previous year realisation (Rs. 37 crores). This is the highest ever realisation since inception of North-Eastern Region in POWERGRID. The states of Mizoram, Tripura and Meghalaya have liquidated their outstanding dues of undisputed bills in this financial year.

North-Eastern Region has developed departmental team to take care of O&M needs in transmission line area. Successful replacement of 105 insulators from 400 kV transmission lines in this region was first milestone so achieved.

### PARTICULARS OF EMPLOYEES

The particulars of employees of the Corporation who were in receipt of remuneration in excess of the limit prescribed under Section 217 (2A) of the Companies Act, 1956 is given in Annexure-I to this report.

### CONSERVATION OF ENERGY, TECHNOLOGY ABSORPTION AND FOREIGN EXCHANGE EARNINGS AND OUTGO

As regards the requirement of the disclosures under Section 217 (1) (e) of the Companies Act, 1956 read with Rule 2 of the Companies (Disclosure of particulars in the Report of Board of Directors) Rules, 1988 relating to conservation of energy, technology



absorption and foreign exchange earnings and outgo information is given in Annexure-II to this report.

### COMPTROLLER AND AUDITOR GENERAL'S COMMENTS

Review of the accounts for the year ended 31st March, 2001 by the Comptroller and Auditor General of India under section 619 (4) of the Companies Act, 1956 alongwith Directors comments on the points raised by the CAG is given in Annexure-III to this report.

### CORPORATE GOVERNANCE

Corporate Governance is about promoting corporate fairness, transparency and accountability in the interest of various stakeholders in the company. POWERGRID believes that good governance should entail trusteeship, empowerment, and accountability of the management while remaining proactive to the Government policies. The Corporate Governance in POWERGRID is geared up:

- (i) to meet the short term, medium term & long term objectives and specific targets every year set by the Government and the persons at the helm of affairs, i.e. the Board, by empowering people at the appropriate levels, keeping the job profile/functions/skills in view.
- (ii) to respond to the challenges and the emerging opportunities and to play a pivotal role in the economic development of the country.

#### Audit Committee:

As a step forward for infusing corporate governance, an Audit Committee of the Board has been set up having external directors as members to review the financial disclosures and accounting policies etc. The terms of reference for the Audit Committee is in line with the role carved out as per the Companies Act and Listing requirements. The Audit Committee met seven times during the financial year 2000-01 to deliberate on various issues.

### POWERGRID'S BOARD

The constitution of Board did not change during the financial year 2000-2001. Some changes however, have taken place after 31st March, 2001. Shri P.I. Suvarathan, Joint Secretary, Ministry of Power was appointed on the Board of POWERGRID in place of Shri J.Vasudevan, Additional Secretary, Ministry of Power w.e.f. 18.5.2001. The Board gratefully acknowledges the invaluable contribution and guidance received from Shri J.Vasudevan during his innings with POWERGRID. Shri V.V.R.K. Rao,



Members of POWERGRID board & Co. Secy.

Member (G&O), CEA was inducted on the Board as a part time director with effect from 20.07.01. The non-official part time Directors were appointed w.e.f. 27.7.98 for a period of three years. In accordance with the Govt. of India order dated 27.7.98, Shri R.V.Shahi, Director and Dr. Ramesh Gupta, Director have retired on 26.7.2001. The Board of Directors also places on record its deep appreciation for the contribution and guidance received from Shri Shahi and Dr. Ramesh Gupta. Shri A.I. Bunet, assumed charge of the post of Director(Personnel), POWERGRID w.e.f. 09.08.01.

### ACKNOWLEDGEMENTS

The Directors place on record their grateful thanks for the guidance and co-operation extended all through by Ministry of Power, Central Electricity Authority, Ministry of Home Affairs, Central Electricity Regulatory Commission, Deptt. of Economic Affairs, Ministry of Finance and other concerned Govt. departments/agencies at the Central and State level without whose active support the achievements by the Corporation during the year under review would not have been possible. Moreover, the Board extends its sincere thanks to the customers of the corporation, the State Electricity Boards/ concerned corporations for their endeavour to pay the transmission charges in spite of their financial hardships.

The Directors take this opportunity to thank the Principal Director of Commercial Audit and Ex-Officio Member Audit Board-III for the co-operation during the year. Your Directors also acknowledge the valuable suggestions and guidance received from the Statutory Auditors viz. M/s. Hingorani M & Co., M/s. Venugopal & Chenoy and M/s D.P. Sen & Co. during the audit of accounts of the company for the year under review.

Your Directors further wish to place on record their sincere thanks to the various national/international Financial Institutions/ Banks/ Credit Rating Agencies

for the continued trust and confidence reposed by them by rendering the continuous timely assistance and patronage for successful implementation of the various projects by the company.

Last but not the least, the Board of Directors place on record the valuable contribution and appreciation for the support and the co-operation extended by each member of the POWERGRID family in the affairs of the company.

On behalf of the Board



**(R.P. SINGH)**

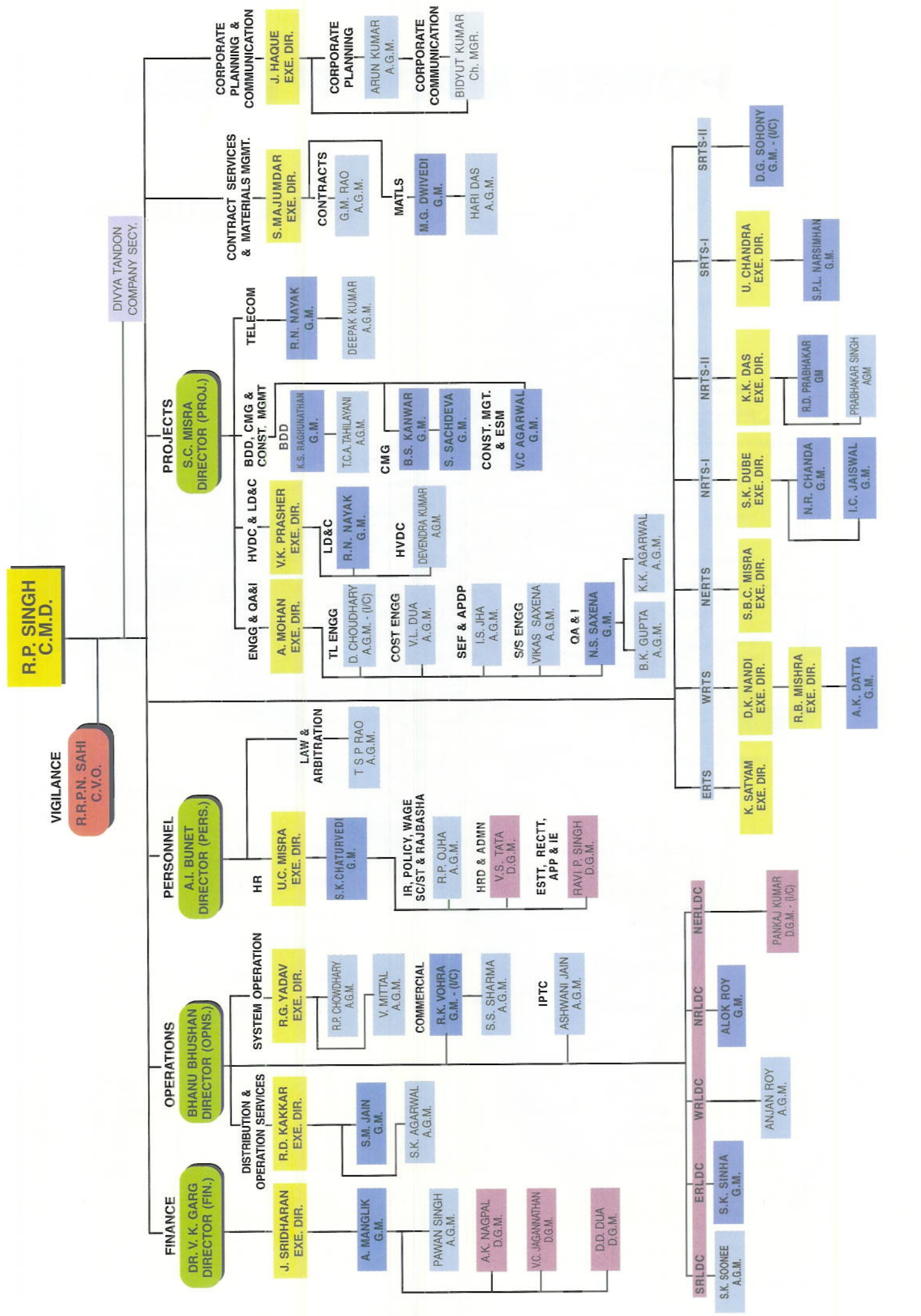
Chairman & Managing Director

Date : 13th August, 2001  
Place: New Delhi



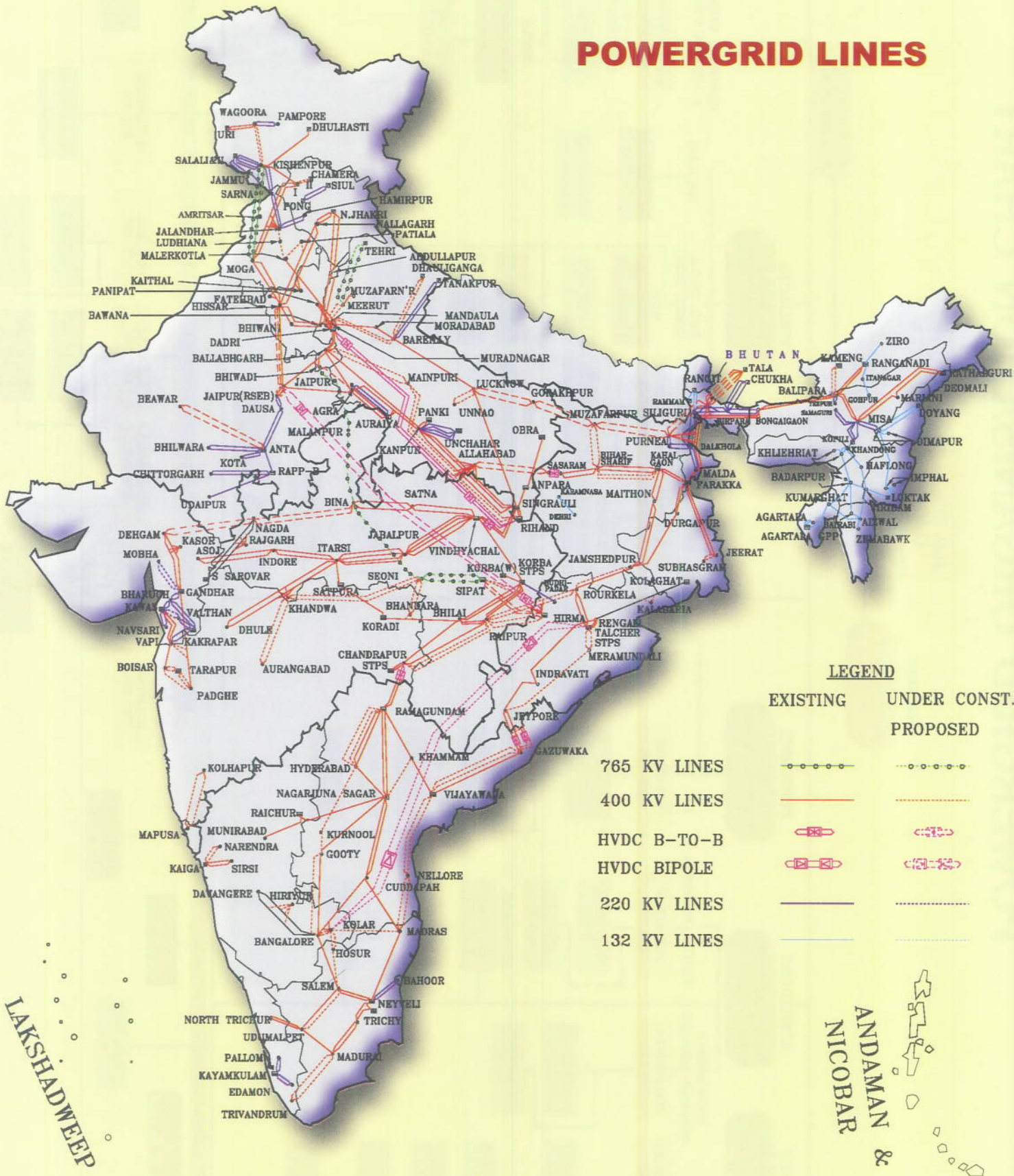
POWERGRID's Way - Meeting challaneges even on snow capped mountains at Sub - Zero Temperature

# POWERGRID ORGANISATION CHART



# POWER MAP OF INDIA

## POWERGRID LINES



### LEGEND

EXISTING      UNDER CONST./  
PROPOSED

765 KV LINES

400 KV LINES

HVDC B-TO-B

HVDC BIPOLE

220 KV LINES

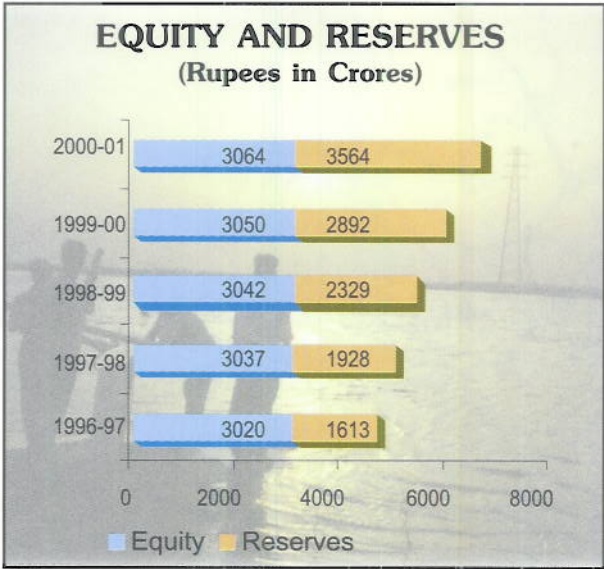
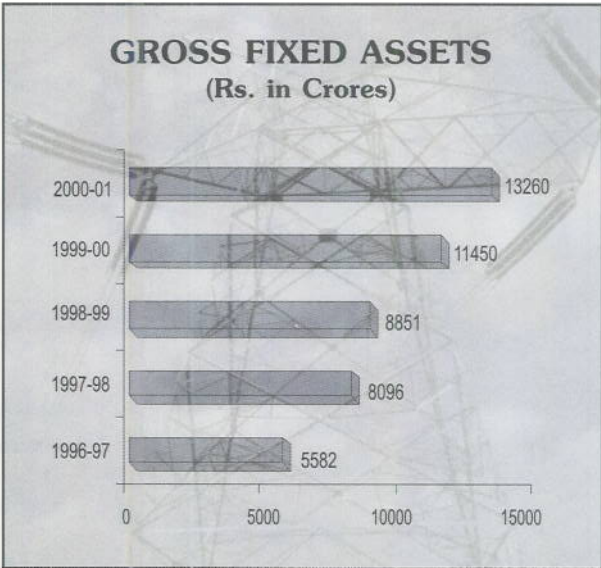
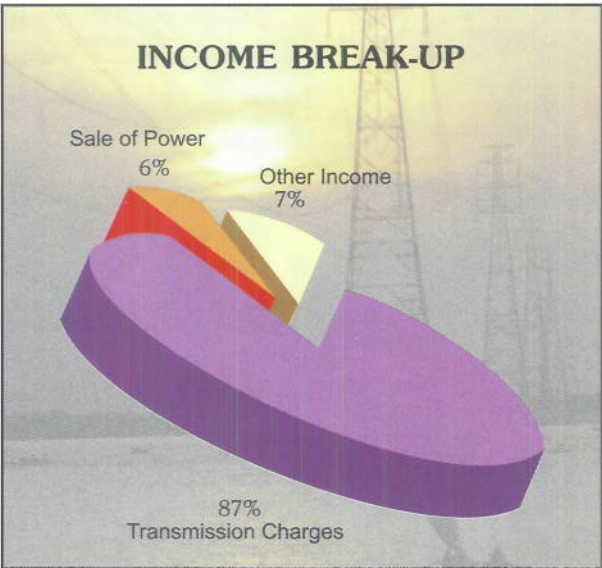
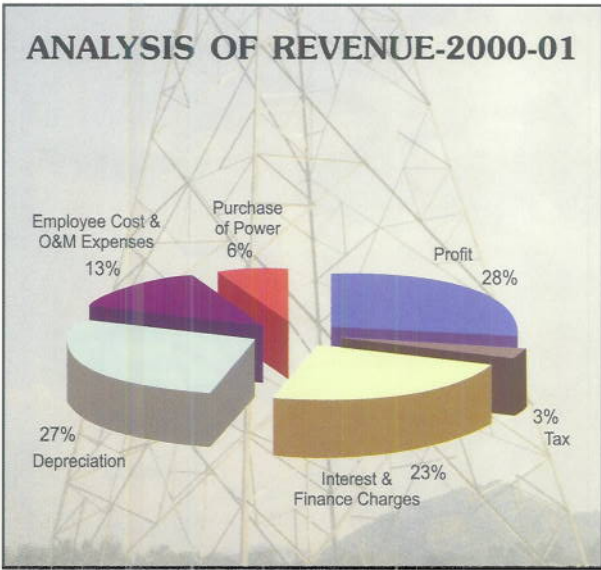
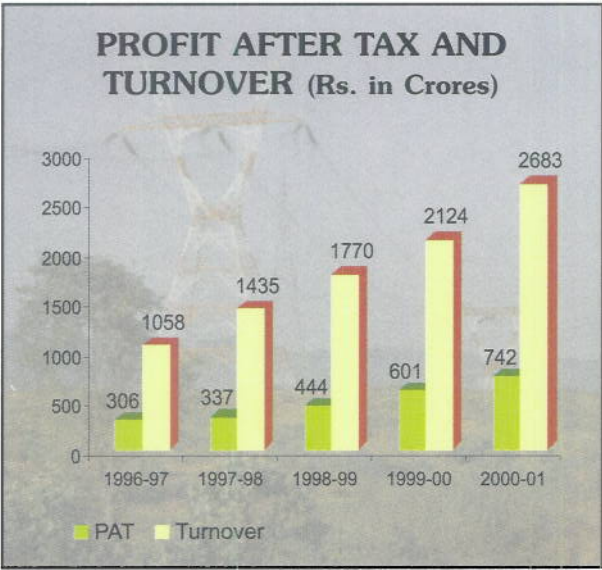
132 KV LINES

ANDAMAN &  
NICOBAR

LAKSHADWEEP

# TELECOM BACKBONE NETWORK

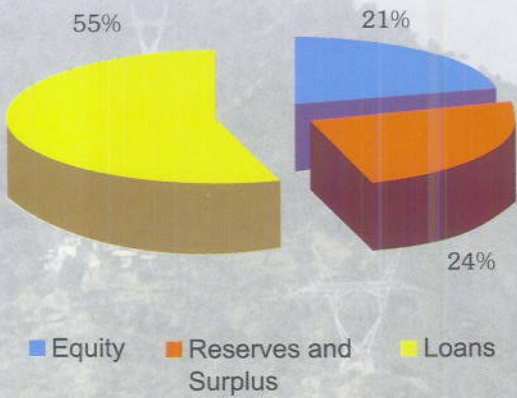




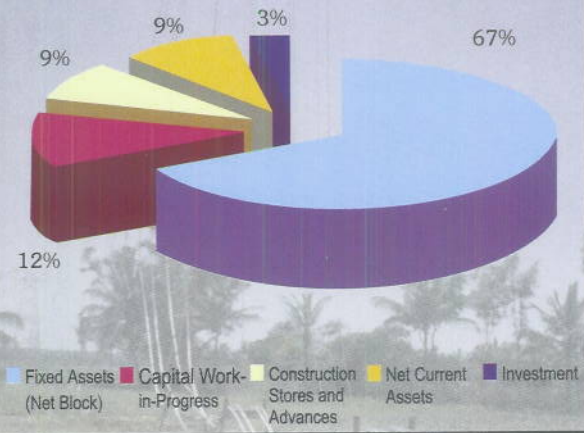




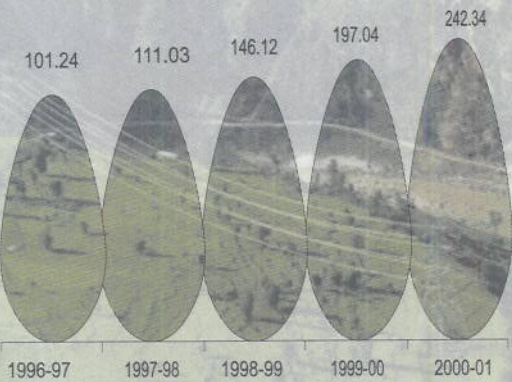
**SOURCES OF FUNDS (%)**



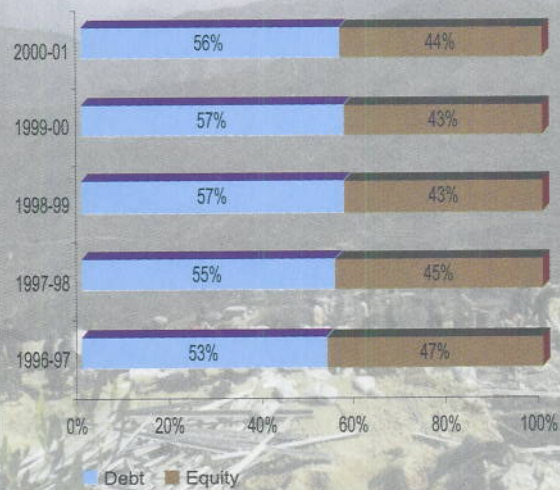
**APPLICATION OF FUNDS (%)**



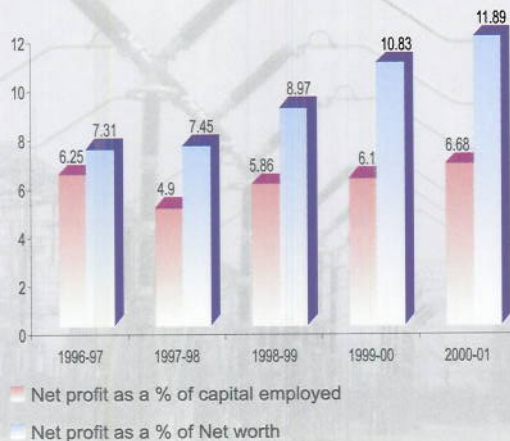
**EARNING PER SHARE OF Rs. 1000 EACH**



**DEBT-EQUITY RATIO**

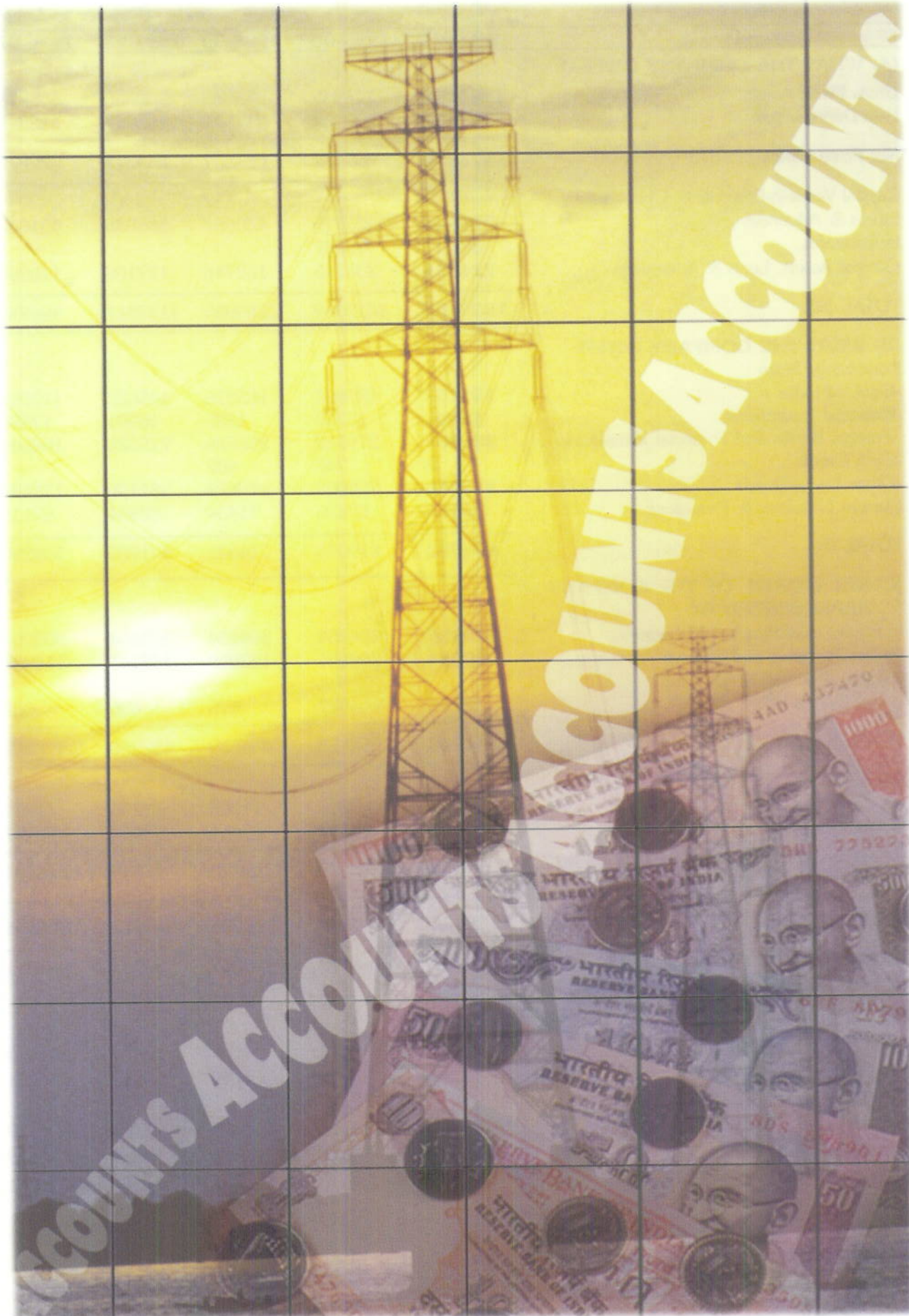


**NET PROFIT AS A % CAPITAL EMPLOYED & NET WORTH**





Progress of 800 kV Kishenpur-Moga Line (near Kishenpur) reviewed by World Bank Team



## FIVE YEAR SUMMARY

### FINANCIAL POSITION

(Rupees in Lacs)

	2000-01	1999-00	1998-99	1997-98	1996-97
<b>(A) WHAT THE COMPANY OWNED:</b>					
Gross Fixed Assets	1326092	1144955	885068	809560	558218
Less: Depreciation	347654	277064	217531	165348	128348
Net Fixed Assets	978438	867891	667537	644212	429870
Capital Work-in-Progress & Construction Stores & Advances	315345	325116	430667	366536	451046
Investments	39747	15147			
Current Assets, Loan & Advances	224735	204215	162746	127169	116060
<b>TOTAL (A)</b>	<b>1558265</b>	1412369	1260950	1137917	996976
<b>(B) WHAT THE COMPANY OWED:</b>					
Borrowings From:					
-Govt. of India	185258	185802	165026	145622	117559
-Financial Institutions	15605	15760	1326	16901	17579
-Foreign Banks and Financial Institutions	286865	279119	266526	215326	169545
-Cash Credit	2	748	602		
-Other Loans/Bonds	318486	250008	219628	181196	172488
Current Liabilities & Provisions	91486	87636	71434	82864	57119
<b>TOTAL (B)</b>	<b>897702</b>	819073	724542	641909	534290
<b>(C) NET WORTH OF THE COMPANY REPRESENTED BY :</b>					
(i) Equity capital(including Deposit)	306388	304954	304154	303654	302004
ii) Free Reserves and Surplus	320604	250801	192059	149141	116996
iii) Less: Misc.Exp.to the extent not written off	2283	827	675	435	608
<b>TOTAL (C)</b>	<b>624709</b>	554928	495538	452360	418392
<b>(D) COMMITTED RESERVES:</b>					
i) Capital Reserves	11206	11206	11206	11206	11827
ii) Grants in Aid	24648	27162	29664	32442	32467
<b>TOTAL (D)</b>	<b>35854</b>	38368	40870	43648	44294
<b>TOTAL (B+C+D)</b>	<b>1558265</b>	1412369	1260950	1137917	996976
<b>CAPITAL EMPLOYED</b> (Net Fixed Assets+Net Current Assets)	<b>1111687</b>	984470	758849	688517	488811
<b>(E) RATIOS</b>					
Net Profit to Capital Employed (%)	6.68	6.10	5.86	4.90	6.25
Net Profit to Net Worth (%)	11.89	10.83	8.97	7.45	7.31
Net Worth Per Rupee of Paid-up Capital (in Rs.)	2.04	1.82	1.63	1.49	1.39
Debt/Equity ratio	56:44	57:43	57:43	55:45	53:47
Liquidity Ratio	2.46:1	2.33:1	2.28:1	1.61:1	2.03:1



## FIVE YEAR SUMMARY

### OPERATING RESULTS

	(Rupees in Lacs)				
	2000-01	1999-00	1998-99	1997-98	1996-97
<b>(A) EARNED FROM :</b>					
Transmission Charges	231764	178950	157701	124653	93422
Sale of Power	16701	17780	13259	16535	10127
Consultancy & other income	19797	15657	6066	2280	2266
<b>Total Earnings</b>	<b>268262</b>	212387	177026	143468	105815
<b>(B) PAID &amp; PROVIDED FOR :</b>					
Purchase of Power	16683	17777	13305	13114	7158
Employees Remuneration & Benefits	21738	14258	10601	8534	6338
Transmission Expenses	5832	4323	4696	4013	2944
Administration Expenses	8107	7841	6578	5885	4234
Other Expenses (Including Prior Period Adj.)	1354	-151	1554	-2116	244
Deffered Revenue Expenditure	525	178	233	179	181
Provisions	18	315	155	453	1169
<b>Total Expenditure (Excl. Depr. &amp; int.)</b>	<b>54257</b>	44541	37122	30062	22268
Profit before Depreciation & Intt	214005	167846	139904	113406	83547
Depreciation	71712	57763	52114	36626	33004
Interest & Finance Charges	61068	42019	38087	34574	19967
Net Profit after Interest & Depreciation but before Tax	81225	68064	49703	42206	30576
Provision for tax	6976	7976	5261	8490*	1
Net Profit after Tax	74249	60088	44442	33716	30575
Dividend	5000	2000	2000	2000	2000

\* Income Tax of Rs. 3951 lacs for the year 1996-97 has also been provided during 1997-98

## REVENUE EXPENDITURE ON SOCIAL OVERHEADS

FOR THE YEAR ENDED 31ST MARCH, 2001

(Rupees in lacs)

Sl. No.	Particulars	Township	Education & School Facilities	Medical Facilities	Subsidised Transport	Social & Cultural Activities	Subsidised Canteen	Total	Previous Year
1.	Payment to Employees		66	971	111	106	154	1408	1184
2.	Material Consumed	35						35	16
3.	Rates & Taxes	16						16	20
4.	Welfare Expenses	37	53	154	30	589	39	902	783
5.	Others including Repair & Maintenance	308		2	1			311	229
6.	Depreciation	443						443	422
7.	Sub-total(1 to 6)	839	119	1127	142	695	193	3115	2654
8.	Less: Recoveries	89			1			90	42
9.	Net Expenditure (7-8)	750	119	1127	141	695	193	3025	2612
10.	Previous year	646	87	958	104	652	165	2612	



## ACCOUNTING POLICIES

### 1.0 CAPITAL RESERVE

Grants-in-aid received from Central Government or other authorities towards capital expenditure for Projects and betterment of transmission systems are shown as grants-in-aid under 'Reserves and Surplus' till the utilisation of grant. However, grants received for specific depreciable assets are shown under 'Reserves and Surplus' while the assets are under construction. On capitalisation of assets, such grants-in-aid are treated as deferred income and recognised in the profit and loss account over the period and in the proportion in which depreciation on these assets is provided.

### 2.0 FIXED ASSETS

- 2.1 In the case of commissioned assets, deposit works/cost- plus contracts where final settlement of bills with contractors is yet to be effected, capitalisation is made on provisional basis subject to necessary adjustments in the year of final settlement.
- 2.2 Assets and Systems common to more than one Transmission System are capitalised on the basis of technical estimates and /or assessments.
- 2.3. The cost of land includes provisional deposits, payments/liabilities towards compensation, rehabilitation and other expenses but does not include the deposits/advances/expenditure incurred wherever possession of land is not taken.
- 2.4. Capital expenditure on assets not owned by the company, reflected as a distinct item in capital work-in-progress, pending completion, is thereafter shown as a distinct item in fixed assets.

### 3.0 MANDATORY SPARES

- 3.1 Mandatory spares in the nature of sub-station equipments/capital spares i.e. stand-by/service/rotational equipment and unit assemblies, either procured along with the equipments or subsequently, are capitalised and depreciation charged as per relevant rates. Mandatory spares of consumable nature and transmission line items are treated as inventory after commissioning of the line.

### 4.0 TREATMENT OF EXPENDITURE DURING CONSTRUCTION

- 4.1 i) Corporate Office expenses, chargeable

to Revenue, are allocated to Regional Load Despatch Centres (RLDCs) in the proportion the RLDC O&M expenses bears to the O&M expenditure of the Corporation (excluding Corporate office expenses) for the current year.

- ii) Expenses of Corporate Office, as reduced by the amount allocated to RLDCs, common to operation and construction activities, are allocated to Profit and Loss Account and Incidental Expenditure during Construction in the proportion of Transmission Charges to Annual Capital Outlay.
- iii) Expenses of the projects, common to operation and construction activities, are allocated to Profit and Loss Account and Incidental Expenditure during Construction in the proportion of Transmission charges to Accretion to Capital Work-in-Progress.
- iv) The Transmission system is capitalised when it is ready for intended use. However, in case of delay in commercial operation / earning of revenue, the revenue expenditure including interest charges incurred during the intervening period are treated as Deferred Revenue Expenditure (DRE) and amortized over a period of 5 years from the year of commercial operation / earning of revenue. The depreciation charge is postponed till the year of commercial operation.
- v) (a) All the borrowed funds are earmarked to specific projects. The borrowing cost (including Bond Issue expenses, Front End fee, Management fee etc.) is allocated to the projects in proportion to the funds so earmarked.
- (b) The borrowing costs so allocated are capitalised or charged to revenue based on whether the project is under construction or operation.
- 4.2 Incidental Expenditure during Construction (net) including Corporate Office expenses are allocated to the projects pro-rata to the annual capital expenditure for the year is apportioned to capital work in progress (CWIP) on the basis of accretion there to. Interest during construction is apportioned on the closing

balance of Capital Work-in-Progress.

- 4.3 Deposit works/cost-plus contracts are accounted for on the basis of statement of account received from the contractors.
- 4.4 Claims for price- variation/exchange rate variation in case of contracts are accounted for on acceptance.

#### **5.0 FOREIGN CURRENCY CONVERSION OR TRANSLATION OF ITEMS**

Foreign Currency loans/deposits/liabilities are translated/converted with reference to the rates of exchange ruling at the year-end. Difference is adjusted to Capital Work-in-Progress/Fixed Assets in case of Capital Assets and is charged off to revenue, in the case of Current Assets.

#### **6.0 VALUATION OF INVENTORIES**

- 6.1 Inventories, other than scrap, are valued at cost on weighted- average basis.
- 6.2 Steel scrap and conductor scrap are valued at estimated realisable value or book value, whichever is less. Other scrap is accounted for as and when sold .

#### **7.0 RECOGNITION OF INCOME**

- 7.1. Transmission charges are accounted for based on tariff rates notified by Government of India / Central Electricity Regulatory Commission . In case of transmission projects where tariff has not been notified, transmission charges are billed as per Bulk Power Transmission Agreements or as decided by the concerned Regional Electricity Boards or on norms and parameters followed by Government of India for fixation of tariff.
- 7.2. Sale of power purchased from Chukha Hydel Power Corp. Ltd., Bhutan, is accounted for on the basis of power tariff as notified by Government of India from time to time.
- 7.3 The surcharge recoverable from debtors is not treated as income due to uncertainty of its realisation and is, therefore, accounted for on receipt basis.
- 7.4 Liquidated damages/warranty claims and Interest on advances to suppliers are not treated as income due to uncertainty of realisation, and are, therefore, accounted for on receipt/ acceptance.
- 7.5 Income from Consultancy/Contract Services is accounted for on the basis of actual progress/ technical assessment of work executed, except

in cases where contracts provide otherwise.

- 7.6 The Transmission system Incentive/ Disincentive is accounted for based on tariff notification No. 2/3/Powergrid/Tariff/98 dated 04.02.99 of Government of India wherever availability is certified by the respective Regional Electricity Boards.

#### **8.0 EXPENDITURE**

- 8.1 a) Depreciation is provided on straight -line method as per rates laid down under the Electricity (Supply) Act, 1948, notified from time to time, in respect of assets, where rates have not been laid down under the aforesaid Act, depreciation is provided on straight line method as per rates prescribed under the Income Tax Act, 1961, except in case of computers and peripherals, where rates as assessed by the Company are adopted.
- b) Depreciation is provided from the year following the year that in which the assets become available for use, in accordance with the Electricity (Supply) Act, 1948.
- c) Where the cost of depreciable asset has undergone a change during the year due to increase/decrease in long term liabilities on account of exchange fluctuation, price adjustment, change in duties or similar factors, the unamortized balance of such asset is depreciated prospectively over the residual life determined on the basis of the rate of depreciation.
- d) Capital expenditure on assets not owned by the company is amortized over a period of 4 years from the year following the year in which the first line/sub-station of the project comes into commercial operation and thereafter from the year following the year in which the relevant assets are completed and become available for use.
- 8.2 In the case of assets of National Thermal Power Corporation Limited (NTPC) , National Hydro-electric Power Corporation Limited (NHPC), North-Eastern Electric Power Corporation Limited (NEEPCO), Neyveli Lignite Corporation Limited (NLC) transferred w.e.f. 01.04.92, Jammu and Kashmir Lines w.e.f. 01.04.93, and Tehri Hydro Development Corporation Limited (THDC) w.e.f. 01.08.93, depreciation is charged based on Gross Block





as indicated in transferor's books with necessary adjustments so that the life of the assets as laid down under Electricity (Supply) Act, 1948 is maintained.

- 8.3 Plant and Machinery, Loose Tools and items of scientific appliances, included under different heads of assets, costing Rs.5000/- or less or with written down value of Rs.5000/- or less, as at the beginning of the year, are charged off to revenue.
- 8.4 Insurance reserve is created @ 0.1% on gross value of Fixed Assets as at the close of the year in respect of future losses which may arise from uninsured risks except for machinery breakdown for valve halls of HVDC and fire risk for HVDC equipments, and SVC sub

stations.

- 8.5 Expenses on Training and Recruitment, Research and Development are charged to revenue.
- 8.6 Pre-paid/prior-period items upto Rs.100000/- are accounted to natural heads of account.

## 9.0 INVESTMENTS

Investments are carried at cost.

## 10.0 TREATMENT OF RETIREMENT BENEFITS

The liability for gratuity, leave-encashment, and post retirement medical benefits of employees is accounted for on accrual basis based on actuarial valuation.

**SCHEDULE 3 - LOANS FUND (CONTINUING)**
**(Rupees in Lacs)**

Description	As at 31st, March,2001	As at 31st, March, 2000
b. Secured by a floating charge on the fixed assets of the Company	10000	10000
	10000	10938
<b>Loan from State Bank of India</b>		
a. Secured by first paripassu charge on fixed assets of the Company	20000	20000
b. Secured by first paripassu charge on fixed assets of the Company	25000	25000
	45000	45000
<b>Loan from ICICI</b>	15000	
Secured by first pari passu charge over the assets of the Company		
<b>Loan from Corporation Bank</b>		
Secured by a floating charge on the fixed assets of the Company	10000	10000
<b>Loan from Punjab National Bank</b>		
Secured by a floating charge on the fixed assets of the Company	20000	20000
<b>Bank of India, Cayman Island</b>	46880	43900
Secured by a Floating charge on the immovable properties of the company		
<b>Loan from International Bank for Reconstruction and Development</b>		
Secured by equitable mortgage of immovable properties and hypothecation of movable properties of Vindhachal and Rihand Transmission system and further guaranteed by Government of India	85208	90828
<b>West Merchant Bank , UK</b>		
(Guaranteed by consortium of Bankers, which is secured by hypothecation of Plant and Machinery of Jeypore-Gajuwaka HVDC transmission system and further to be secured by Equitable Mortgage of immovable properties of Indravati Substation	16953	19765
<b>Total Secured Loans</b>	<b>337836</b>	<b>355839</b>
<b>UNSECURED LOANS</b>		
<b>BONDS IX SERIES</b>		
12.25% (Taxable) Redeemable, non-cummulative, non-convertible Bonds of Rs. 1,00,000/- each redeemable at par in 10(Ten) equal annual instalments w.e.f. 22nd August, 2003 To be secured by creation of charges on the assets of the Corporation	57650	
<b>Loan from ICICI</b>		15000
<b>Loan from ICICI Bank Ltd. (Short Term)</b>	25000	
<b>Loan from Power Finance Corporation</b>	10000	
<b>Loan from Government of India</b>	185258	185802
<b>Syndicated loans from ING Bank,Japan</b>	7540	8322
<b>Commerz Bank</b>	3291	5448
<b>Bank of India, Tokyo</b>	4836	5338



## SCHEDULE 3 - LOANS FUND (CONTINUING)

(Rupees in Lacs)

Description	As at 31st, March, 2001	As at 31st, March, 2000
<b>Kreditanstalt Fur Wiederaufbau, Germany</b>	15810	8142
<b>Loans Guaranteed by Govt of India</b>		
a. West Merchant Bank UK & State Bank of India, London	15723	19173
b. Natexis Banque (Credit National), France	10015	10230
c. Credit Agricole Indosuez (Banque Indosuez)	6607	7787
d. Asian Development Bank (1405 - IND)	89701	75946
e. Syndicated Loan from Industrial Bank of Japan & other Japanese Banks/Financial Institutions	2869	4749
f. Overseas Economic Corporation Fund (JBIC)	2112	1287
g. European Investment Bank	9111	3347
h. Asian Development Bank (1764-IND)	3165	
	139303	122519
PENDING FINALISATION OF TRIPARTITE AGREEMENT/BACK TO BACK AGREEMENT AMOUNT PAYABLE TO GOVERNMENT OF INDIA ON ACCOUNT OF		
<b>A. NTPC Purchase Consideration</b>		
1. Loans from		
a. Syndicated loan from Industrial Bank, Japan	11948	13188
b. Syndicated loan from Sumitomo Bank	5303	8788
<b>2. Bonds issued by NTPC</b>	802	802
	18053	22778
<b>B. NHPC Purchase Consideration</b>		
a. Export Development Corporation, Canada	1509	2119
b. Bonds issued by NHPC	130	130
	1639	2249
<b>Total Unsecured Loans</b>	<b>468380</b>	<b>375598</b>
<b>Grand Total (Secured + Unsecured)</b>	<b>806216*</b>	<b>731437</b>

\* Due for repayment/redemption within one year Rs. 36588 Lakhs.

**SCHEDULE 4A - FIXED ASSETS - TRANSMISSION**

**(Rupees in Lacs)**

Description	Gross Block			Depreciation			Net Block			
	As at 31/03/2000	Additions during the year	Adjustments during the year	As at 31/03/2001	As at 31/03/2000	Additions during the year	Adjustments during the year	As at 31/03/2001	As at 31/03/2001	As at 31/03/2000
<b>LAND (Including Development)</b>										
Freehold	130			130					130	130
Leasehold	37	1		38	1			1	37	36
Roads, Bridges, Culverts & Helipads	1			1					1	1
<b>BUILDINGS</b>										
Others	4			4	1			1	3	3
Temp. erection	10			10	8			8	2	2
Plant&Machinery	664942	151584	3555	812971	136150	35644	928	170866	642105	528792
Constr.and Workshop equip	601	87	-32	720	168	49	-2	219	501	433
Vehicles	6			6	4			4	2	2
<b>TOTAL (A)</b>	<b>665731</b>	<b>151672</b>	<b>3523</b>	<b>813880</b>	<b>136332</b>	<b>35693</b>	<b>926</b>	<b>171099</b>	<b>642781</b>	<b>529399</b>


**SCHEDULE 4B - FIXED ASSETS- SUB-STATIONS**
**(Rupees in Lacs)**

Description	Gross Block			Depreciation			Net Block			
	As at 31/03/2000	Additions during the year	Adjustments during the year	As at 31/03/2001	As at 31/03/2000	Additions during the year	Adjustments during the year	As at 31/03/2001	As at 31/03/2001	As at 31/03/2000
<b>LAND</b> (Including Development)										
Freehold	7528	575	21	8082				8082		7528
Leasehold	1084	45	-15	1144	111	28		139	1005	973
Unclassified	18			18					18	18
Roads, Bridges, Culverts & Helipads	2536	260	-2	2798	371	78		449	2349	2165
<b>BUILDINGS</b>										
Main Plant	7162	946	21	8087	1755	447	-16	2218	5869	5407
Others	1183	184	-2	1369	426	22		448	921	757
Temp. erection	152	7	-1	160	118	7	-1	126	34	34
Water Supply Drain, Sewerage	1001	109	1	1109	178	47		225	884	823
Plant & Machinery	424672	28814	1185	452301	130018	34008	254	163772	288529	294654
Constr. and Workshop equip.	461	5		466	242	38		280	186	219
Electrical Installation	954	44	-10	1008	460	59		519	489	494
Vehicles	187		-1	188	155		-1	156	32	32
Aircraft/Aero engines Boats	2			2	1			1	1	1
Furniture Fixtur & Other equipment	585	189	-2	776	336	57		393	383	249
EDP & WP Machines	220	29	3	246	135	37		172	74	85
Laboratory and Workshop equip.	1501	209	-8	1718	1023	108	3	1128	590	478
Capital Exp. on Assets not owned by the Company	149	19		168	125	9		134	34	24
<b>TOTAL (B)</b>	<b>449395</b>	<b>31435</b>	<b>1190</b>	<b>479640</b>	<b>135454</b>	<b>34945</b>	<b>239</b>	<b>170160</b>	<b>309480</b>	<b>313941</b>

**SCHEDULE 4C - FIXED ASSETS- RESEARCH & DEVELOPMENT**
**(Rupees in Lacs)**

Description	Gross Block			Depreciation			Net Block			
	As at 31/03/2000	Additions during the year	Adjustments during the year	As at 31/03/2001	As at 31/03/2000	Additions during the year	Adjustments during the year	As at 31/03/2001	As at 31/03/2001	As at 31/03/2000
<b>BUILDINGS</b>										
Others	74			74	14	2		16	58	60
<b>TOTAL (C)</b>	<b>74</b>			<b>74</b>	<b>14</b>	<b>2</b>		<b>16</b>	<b>58</b>	<b>60</b>

**SCHEDULE 4D - FIXED ASSETS- OFFICE COMPLEX**
**(Rupees in Lacs)**

Description	Gross Block			Depreciation			Net Block			
	As at 31/03/2000	Additions during the year	Adjustments during the year	As at 31/03/2001	As at 31/03/2000	Additions during the year	Adjustments during the year	As at 31/03/2001	As at 31/03/2001	As at 31/03/2000
<b>LAND</b> (Including Development)										
Freehold	1198	1126	1135	1189					1189	1198
Leasehold	822			822	10	1		11	811	812
<b>BUILDINGS</b>										
Others	4773	212	2	4983	592	150		742	4241	4181
Temp.erection	219	5		224	176	9		185	39	43
Water Supply drain. Sewerage	8	1		9	1			1	8	7
Electrical Installation	29			29	10	2		12	17	19
Vehicles	112	26	2	136	82	12	2	92	44	30
Furniture Fixtur & Other equipment	2008	153	-6	2167	1086	197	-4	1287	880	922
EDP &WP Machines	1342	623	135	1830	650	298	118	830	1000	692
<b>TOTAL (D)</b>	<b>10511</b>	<b>2146</b>	<b>1268</b>	<b>11389</b>	<b>2607</b>	<b>669</b>	<b>116</b>	<b>3160</b>	<b>8229</b>	<b>7904</b>

**Schedule 4E - FIXED ASSETS- TOWNSHIP ASSETS**
**(Rupees in Lacs)**

Description	Gross Block			Depreciation			Net Block			
	As at 31/03/2000	Additions during the year	Adjustments during the year	As at 31/03/2001	As at 31/03/2000	Additions during the year	Adjustments during the year	As at 31/03/2001	As at 31/03/2001	As at 31/03/2000
<b>LAND</b> (Including Development)										
Freehold	5327	4476	4735	5068					5068	5327
Leasehold	144	779		923	15	2		17	906	129
Roads bridges culverts & helipads	916	148		1064	165	28		193	871	751
<b>BUILDINGS</b>										
Others	10004	622	-228	10854	1593	321		1914	8940	8411
Temp.erection	64	1		65	56	1		57	8	8
Water supply drain. Sewerage	1361	241	-9	1611	257	44		301	1310	1104
Electrical Installation	606	12	-4	622	273	47	-1	321	301	333
Vehicles	16		1	15	13		1	12	3	3
Furniture fixtur & Other equipment	401	45	1	445	147	33		180	265	254
EDP &WP Machines	1			1					1	1
Hospital Equip.	1			1	1			1		
School Equip.	3			3	1			1	2	2
Capital Exp. on Assets not owned by the Company	4			4	3			3	1	1
<b>Total (E)</b>	<b>18848</b>	<b>6324</b>	<b>4496</b>	<b>20676</b>	<b>2524</b>	<b>476</b>		<b>3000</b>	<b>17676</b>	<b>16324</b>



## SCHEDULE 4F - FIXED ASSETS- RLDC

(Rupees in Lacs)

Description	Gross Block			Depreciation			Net Block			
	As at 31/03/2000	Additions during the year	Adjustments during the year	As at 31/03/2001	As at 31/03/2000	Additions during the year	Adjustments during the year	As at 31/03/2001	As at 31/03/2001	As at 31/03/2000
<b>BUILDINGS</b>										
Temp. Erection	10			10	8	1		9	1	2
Plant & Machinery	28	4		32	12	2		14	18	16
Constru. and Workshop equip	1			1					1	1
Vehicles	2		-1	3	1		-1	2	1	1
Furniture Fixture & Other Equipment	114	14	4	124	38	15	2	51	73	76
EDP & WP Machines	231	22		253	70	67		137	116	161
Laboratory and Workshop Equip.	10			10	4	2		6	4	6
<b>Total (F)</b>	<b>396</b>	<b>40</b>	<b>3</b>	<b>433</b>	<b>133</b>	<b>87</b>	<b>1</b>	<b>219</b>	<b>214</b>	<b>263</b>

## SCHEDULE 4 - FIXED ASSETS

(Rupees in Lacs)

Description	Gross Block			Depreciation			Net Block			
	As at 31/03/2000	Additions during the year	Adjustments during the year	As at 31/03/2001	As at 31/03/2000	Additions during the year	Adjustments during the year	As at 31/03/2001	As at 31/03/2001	As at 31/03/2000
<b>LAND(Including Development)</b>										
Freehold	14183	6177	5891	14469				14469		14183
Leasehold	2087	825	-15	2927	137	31		168	2759	1950
Unclassified	18			18					18	18
Roads, Bridges,Culverts & Helipads	3453	408	-2	3863	536	106		642	3221	2917
<b>BUILDINGS</b>										
Main Plant	7162	946	21	8087	1755	449	-16	2220	5867	5407
Others	16038	1018	-228	17284	2626	493		3119	14165	13412
Temp.erection	455	13	-1	469	366	18	-1	385	84	89
Water Supply Drain. Sewerage	2370	351	-8	2729	436	91		527	2202	1934
<b>Plant&amp;Machinery</b>	<b>1089642</b>	<b>180402</b>	<b>4740</b>	<b>1265304</b>	<b>266180</b>	<b>69654</b>	<b>1182</b>	<b>334652</b>	<b>930652</b>	<b>823462</b>
Constru.and workshop equip	1063	92	-32	1187	410	87	-2	499	688	653
Electrical Installation	1589	56	-14	1659	743	108	-1	852	807	846
Vehicles	323	26	1	348	255	12	1	266	82	68
Aircraft/Aero engines Boats	2			2	1			1	1	1
<b>Furniture fixtur &amp; Other equipment</b>	<b>3108</b>	<b>401</b>	<b>-3</b>	<b>3512</b>	<b>1607</b>	<b>302</b>	<b>-2</b>	<b>1911</b>	<b>1601</b>	<b>1501</b>
<b>EDP &amp; WP Machines</b>	<b>1794</b>	<b>674</b>	<b>138</b>	<b>2330</b>	<b>855</b>	<b>402</b>	<b>118</b>	<b>1139</b>	<b>1191</b>	<b>939</b>
Laboratory and workshop Equip.	1511	209	-8	1728	1027	110	3	1134	594	484
Hospital Equip.	1			1	1			1		
School Equip.	3			3	1			1	2	2
Capital Exp. on Assets not owned by the Company	153	19		172	128	9		137	35	25
<b>Grand Total</b>	<b>1144955</b>	<b>191617</b>	<b>10480</b>	<b>1326092</b>	<b>277064</b>	<b>71872</b>	<b>1282</b>	<b>347654</b>	<b>978438</b>	<b>867891</b>
<b>Previous year</b>	<b>885068</b>	<b>251416</b>	<b>-8471</b>	<b>1144955</b>	<b>217531</b>	<b>57925</b>	<b>-1608</b>	<b>277064</b>	<b>867891</b>	

**SCHEDULE 5A - CAPITAL WORK IN PROGRESS - TRANSMISSION LINES**

(Rupees in Lacs)

Description	Balance as at 31.3.2000	Additions by Transfer of Assets	Additions during the year	Adjustments	Capitalised during the year	Balance as at 31.3.2001
<b>PLANT &amp; MACHINERY</b> (including associated civil works)						
a. On own A/C & on supply-cum-erection contract	171808		118940	-3607	149912	144443
Consultancy & Supervision Charges	2282		1119	648	9	2744
Difference in Exchange on foreign Loans	536		2606	3705	-437	-126
<b>TOTAL (A)</b>	<b>174626</b>		<b>122665</b>	<b>746</b>	<b>149484</b>	<b>147061</b>

**SCHEDULE 5B - CAPITAL WORK IN PROGRESS - SUBSTATIONS**

(Rupees in Lacs)

Description	Balance as at 31.3.2000	Additions by Transfer of Assets	Additions during the year	Adjustments	Capitalised during the year	Balance as at 31.3.2001
Development of land	264		555		200	619
Roads , Bridges,Culverts & helipads	480		467	18	375	554
Buildings (others)	1098		921	10	1073	936
Temporary erection	12		24	-3	6	33
Water supply drainage and sewerage	60		80	11	95	34
<b>PLANT &amp; MACHINERY</b> (including associated civil works)						
a.On own account & on supply-cum-erection contract	25576		28270	1164	28275	24407
b.Others						
Electrical installations	50		63	2	30	81
Furniture fixtures & other office equip.	116		40		116	40
Consultancy & Supervision Charges	1891		220	104		2007
Difference in Exchange on foreign Loans	412		-1733	-808	-882	369
Capital expenditure on assets not owned by company			7			7
<b>TOTAL (B)</b>	<b>29959</b>		<b>28914</b>	<b>498</b>	<b>29288</b>	<b>29087</b>




**SCHEDULE 5C - CAPITAL WORK IN PROGRESS - OFFICE COMPLEX**

(Rupees in Lacs)

Description	Balance as at 31.3.2000	Additions by Transfer of Assets	Additions during the year	Adjustments	Capitalised during the year	Balance as at 31.3.2001
Development of land	1		20			21
Buildings (others)	587		1349	33	215	1688
Temporary erection	5		1		1	5
Water Supply Drainage & Sewerage	2		1		1	2
<b>TOTAL (C)</b>	<b>595</b>		<b>1371</b>	<b>33</b>	<b>217</b>	<b>1716</b>

**Schedule 5D - CAPITAL WORK IN PROGRESS - TOWNSHIP ASSETS**

(Rupees in Lacs)

Description	Balance as at 31.3.2000	Additions by Transfer of Assets	Additions during the year	Adjustments	Capitalised during the year	Balance as at 31.3.2001
Development of land	1		1		1	1
Roads , Bridges,Culverts & helipads	123		78	3	159	39
Buildings (others)	1129		1360	3	1039	1447
Temporary erection			3		1	2
Water Supply Drainage & Sewerage	218		81	-9	220	88
Electrical Installations	11		1		12	
Furniture & fixtures & other office equipments	4				4	
<b>Total (D)</b>	<b>1486</b>		<b>1524</b>	<b>-3</b>	<b>1436</b>	<b>1577</b>

**SCHEDULE 5E - CAPITAL WORK IN PROGRESS -INCIDENTAL EXPENSES DURING CONSTRUCTION**

(Rupees in Lacs)

Description	Balance as at 31.3.2000	Additions by Transfer of Assets	Additions during the year	Adjustments	Capitalised during the year	Balance as at 31.3.2001
Incidental Expenditure During Construction	3249		33106			36355
Less: Allocated to Capital Work in Progress			33035			33035
<b>TOTAL (E)</b>	<b>3249</b>		<b>71</b>			<b>3320</b>

**SCHEDULE 5 - CAPITAL WORK IN PROGRESS**

(Rupees in Lacs)

Description	Balance as at 31.3.2000	Additions by Transfer of Assets	Additions during the year	Adjustments	Capitalised during the year	Balance as at 31.3.2001
Development of land	266		576		201	641
Roads, bridges & culverts & helipads	603		545	21	534	593
Buildings (others)	2814		3630	46	2327	4071
Temporary erection	17		28	-3	8	40
Water supply, drainage and sewerage	280		162	2	316	124
<b>PLANT &amp; MACHINERY</b> (including associated civil works)						
a. On own account & on supply-cum-erection contract	197384		147210	-2443	178187	168850
Electrical installations	61		64	2	42	81
Furniture fixtures & other office equip.	120		40		120	40
Consultancy & Supervision Charges	4173		1339	752	9	4751
Difference in Exchange on foreign Loans	948		873	2897	-1319	243
Capital Expenditure on Assets not owned by Company			7			7
Incidental Expenditure during Construction	3249		71			3320
<b>TOTAL</b>	<b>209915</b>		<b>154545</b>	<b>1274</b>	<b>180425</b>	<b>182761</b>
<b>Previous Year</b>	<b>327342</b>		<b>136750</b>	<b>10569</b>	<b>243608</b>	<b>209915</b>


**SCHEDULE 6 - CONSTRUCTION STORES AND ADVANCES**
**(Rupees in Lacs)**

Description	RLDC	Transmission & others	As at 31st March, 2001	As at 31st March, 2000
<b>Construction Stores (at cost)</b> (As certified by the management)				
Steel		611	611	631
Cement		45	45	48
Others	208	86635	<u>86843</u>	83581
			87499	84260
<b>Less:</b> Provision for Shortages and obsolete material		195	<u>195</u>	<u>269</u>
	208	87096	87304	<b>83991</b>
<b>Advances for Capital Expenditure</b>				
Secured		141	141	26
Unsecured considered good				
a. Against Bank Guarantees		36919	36919	28064
b. Others		8220	8220	3120
Considered doubtful		70	<u>70</u>	<u>77</u>
		45209	<u>45209</u>	<u>31261</u>
<b>Less:</b> Provision for Bad & Doubtful Advances		70	<u>70</u>	<u>77</u>
		45139	45139	<u>31184</u>
		<b>45280</b>	<u>45280</u>	<b>31210</b>
	208	<b>132376</b>	<u>132584</u>	<u>115201</u>
Construction Stores includes Material in transit /pending issue to contractors and with contractors		81507	<u>81507</u>	<u>79724</u>

## SCHEDULE 7 - INVESTMENTS

(Rupees in Lacs)

Description	As at 31st March, 2001	As at 31st March, 2000
<b>A. Trade Investments ( Unquoted at cost )</b>		
7 years 13.70% MPEB Bonds - 99, Interest payable Semi Annually, 2718 Bonds of Rs. 1,00,000/- each fully paid up	2718	2718
7 years 13.60% APTRANSCO Bonds (Series -1/99), Interest payable Semi Annually, 8830 Bonds of Rs. 1,00,000/- each fully paid up	8830	8830
7 years 13% APTRANSCO Bonds (Series1/2000), Interest payable Semi-annually, 3299 Bonds of Rs. 1,00,000/- each fully paid up	3299	3299
7 years 12.30% APPFCL BONDS(Series 2/2001), Interest payable Semi-Annually, 3300 Bonds of Rs. 1,00,000/- each fully paid up	3300*	-
10 years 11% HVPNL Bonds, Interest payable Semi-annually.	4900*	-
7 years 14% GEB Bonds, Interest payable annually, 5500 Bonds of Rs. 1,00,000/- each fully paid up.	5500	-
10 years 11% Govt. of UP Regular Interest Bonds in the nature of promissory note, Interest payable Semi-annually.	<u>10000</u>	-
<b>TOTAL (A)</b>	<b>38547</b>	<b>14847</b>
<b>B. Non-trade investments ( Unquoted at cost )</b>		
30,00,003 Equity Shares of Rs.10/- each fully paid up of Power Trading Corporation of India Ltd.	300	300
Share application money for 90,00,000 equity share of Rs.10/- each fully paid up of Power Trading Corporation of India Ltd	900	-
500 Fully paid up shares of Rs 10/- each in Employees Co-op Society Limited Bhadravati (Rs. 5000/-)	-	-
500 Fully paid up shares of Rs 10/- each in Employees Co-op Society Limited Itarsi (Rs. 5000/-)	-	-
500 Fully paid up shares of Rs 10/- each in EmployeesCo-op Society Limited Nagpur (Rs. 5000/-)	-	-
500 Fully paid up shares of Rs 10/- each in Employees Co-op Society Limited Jabalpur (Rs. 5000/-)	-	-
500 Fully paid up shares of Rs 10/- each in Powergrid Primary Consumer Co-operative Society Rourkela (Rs 5000/-)	-	-
<b>TOTAL (B)</b>	<b>1200</b>	<b>300</b>
<b>GRAND TOTAL (A+B)</b>	<b>39747</b>	<b>15147</b>

\* The terms and condition are subject to the recommendations of Expert Committee of Government of India and will change in case the decision is favourable to APPFCL/HVPNL.


**SCHEDULE 8 - CURRENT ASSETS , LOAN AND ADVANCES**

(Rupees in Lacs)

Description	RLDC	Transmission & others	As at 31st March, 2001	As at 31st March, 2000
<b>Current Assets</b>				
<b>Inventories</b>				
(Valued at cost as certified by Management)				
Loose tools		62	62	46
Consumable stores		43	43	40
Components, Spares & Other spare parts	1	15585	<u>15586</u>	15671
	1	15690	15691	15757
Less: Provision for Shortages		43	<u>43</u>	102
	1	15647	15648	<b>15655</b>
Inventories includes stores in transit Rs. 2 Lacs (Previous year Rs. 2 Lacs)				
<b>Sundry Debtors</b>				
Debts Outstanding				
For a period exceeding Six Months				
Unsecured considered good	1902	70511	72413	54400
Considered doubtful	-	-	-	-
Other debts				
Unsecured considered good	2268	68171	<u>70439</u>	69239
Considered doubtful	-	-	-	-
	4170	138682	142852	<b>123639</b>
<b>Cash &amp; Bank Balance</b>				
Cash, Stamps and Imprest	1	28	29	11
Drafts/Cheques in Hand		1293	1293	1115
Remittance in transit		1116	1116	326
Balance with scheduled banks on				
Term Deposits		2850	2850	2787
Current Accounts	27	25211	<u>25238</u>	19235
	28	30498	30526	<b>23474</b>
<b>Other Current Assets</b>				
Term Deposit with Subs. of Sch. Banks		9973	9973	9973
Public Deposit Account with Govt. of India		2846	2846	471
Interest accrued	135	3910	4045	2799
Others		42	42	26
	135	16771	<u>16906</u>	<b>13269</b>
<b>Loans And Advances</b>				
<b>Loans to</b>				
Employees	458	6933	7391	9002
Others		41	<u>41</u>	60
	458	6974	7432	<u>9062</u>
<b>Advances</b>				
<b>Advances recoverable in cash or in kind or for value to be received</b>				
Contractors & Suppliers (Including Material issued on loan)	4	251	255	256
Employees	35	799	834	904
Claims recoverable		920	920	1544
Others	237	2186	<u>2423</u>	2528
	276	4156	4432	<u>5232</u>

## SCHEDULE 8 - CURRENT ASSETS , LOAN AND ADVANCES

Description	RLDC	Transmission & others	As at 31st March, 2001	As at 31st March, 2000
<b>Less:</b> Provision for bad and doubtful Advances and Claims		470	470	454
	276	3686	3962	4778
Deposits with customs, Port trust and other authorities	18	733	751	954
Advance Tax & TDS		6658	6658	13384
	294	11077	11371	19116
	752	18051	18803	<b>28178</b>
	5086	219649	224735	<b>204215</b>
<b>Particulars of Loans and Advances</b>				
Secured			5817	7390
Unsecured considered good			12986	20788
Considered doubtful			470	454
			19273	28632
Less: Provisions for Bad & Doubtful Claims			470	454
			18803	<b>28178</b>
Due from Directors & Officers of the company		Maximum Amount 2000-2001	Maximum Amount 1999-2000	
Directors		7	7	7
Officers		656	498	279

(Term Deposit includes Rs.2000 Lacs FDR pledged with consortium of Banks led by State Bank of India as margin money for Overseas Bank Guarantee issued in favour of West Merchant Bank and Rs.752 Lacs FDR pledged with Principal Chief Conservator of Forest, Himachal Pradesh against compensatory afforestation)

## SCHEDULE 9 - CURRENT LIABILITIES AND PROVISIONS

(Rupees in Lacs)

Description	RLDC	Transmission & others	As at 31st March, 2001	As at 31st March, 2000
<b>Current Liabilities</b>				
<b>Sundry Creditors</b>				
For capital expenditure	4	11232	11236	11881
Other goods and services	450	14225	14675	17031
Book overdraft (Banks)				1778
	454	25457	25911	30690
Deposits, Retention money from contractors and others.	131	32421	32552	25575
<b>Less:</b> Investments held as security		46	46	113
	131	32375	32506	25462
Other Liabilities	24	5644	5668	2034
<b>Interest Accrued But Not Due On Loans From</b>				
Government of India		3859	3859	4301
Indian Banks, Financial Institutions and Corporations		1062	1062	848
Foreign Banks & Financial Institution		4604	4604	4240
Secured/Unsecured Redeemable Bonds		3065	3065	2894
Others		18	18	22
		12608	12608	12305
	609	<b>76084</b>	76693	<b>70491</b>
<b>Provisions</b>				
Taxation		7076	7076	13297
Proposed dividend		5000	5000	2000
Dividend Tax		510	510	220
Others	24	2183	2207	1628
	24	<b>14769</b>	14793	<b>17145</b>
	633	<b>90853</b>	91486	<b>87636</b>


**SCHEDULE 10 - MISCELLANEOUS EXPENSES (TO THE EXTENT NOT WRITTEN OFF OR ADJUSTED)**

(Rupees in Lacs)

Description	Balance As at 31st March, 2000	Addition	Deduction	Balance As at 31st March, 2001
Deferred Revenue Expenditure	572	2236	525	2283
Consultancy Expenditure on Telecom	255		255	
	<b>827</b>	2236	780	2283

**SCHEDULE 11 - CONTINGENT LIABILITIES**

(Rupees in Lacs)

Description	RLDC	Transmission & others	As at 31st March, 2001	As at 31st March, 2000
Claims against the Company not acknowledged as debts		80407	80407	103848
Others	188	124142	124330	79317
	188	204549	204737	183165

**SCHEDULE 12 - OTHER INCOME**

(Rupees in Lacs)

Description	RLDC	Transmission & others	For the Year Ended 31st March, 2001	For the Year Ended 31st March, 2000
Hire charges for equipments		20	20	16
<b>Interest From</b>				
Indian Banks		314	314	293
Foreign Banks		374	374	436
Investment		2889	2889	739
Others	31	3143	3174	1054
	31	6720	6751	2522
Profit on sale of Fixed Assets		2	2	4
Deferred Income (Transferred from Capital Reserve on a/c of Capital Grants)		2502	2502	2502
Reimbursement of RLDC Expenses	1751		1751	2905
Transfer from Insurance Reserve on a/c of losses of fixed Assets		42	42	51
Provisions Written Back		143	143	4596
Miscellaneous income	13	886	899	386
Surcharge	2	8381	8383	2344
	1797	18696	20493	15326
<b>Less:</b> Income transferred to Incidental Expenditure During Construction-Sch 16C		1979	1979	845
	1797	16717	18514	14481

**SCHEDULE 13 - TRANSMISSION, ADMINISTRATION AND OTHER EXPENSES**

(Rupees in Lacs)

Description	RLDC	Transmission & others	For the Year Ended 31st March, 2001	For the Year Ended 31st March, 2000
<b>Employees Cost</b>				
<b>Employees- Remuneration And Benefits</b>				
Salaries, wages, allowances & benefits	1374	21045	22419	14544
Contribution to provident and other funds	126	2772	2898	1583
Welfare expenses	167	2692	2859	2241
	<b>1667</b>	<b>26509</b>	<u>28176</u>	<b>18368</b>
<b>Transmission Expenses</b>				
Repairs & Maintenance				
Buildings	30	663	693	<b>491</b>
Plant & Machinery				
Sub Station	19	2089	2108	1203
Transmission lines		509	509	367
Construction equipment		2	2	2
Others	19	200	219	225
	38	2800	2838	<b>1797</b>
Power charges	137	2386	2523	2259
Less: Recovery from contractors		2	2	3
	137	2384	2521	2256
Stores consumed		2	2	1
Water charges	9	10	19	17
	<b>214</b>	<b>5859</b>	<u>6073</u>	<b>4562</b>
<b>Administration Expenses</b>				
Training & Recruitment expenses	2	137	139	145
Less: Fees for training and application		2	2	
	2	135	137	145
Legal expenses		125	125	132
Professional charges (Including TA/DA)	5	79	84	74
Consultancy expenses (Including TA/DA)		648	648	110
Communication expenses	242	730	972	886
Travelling & Conv.exp.(excluding foreign travel)	104	2403	2507	2161
Foreign travel		368	368	353
	104	2771	2875	2514
Tender expenses		164	164	84
Less: Sale of tenders		55	55	26
		109	109	58
<b>Payment to Statutory Auditors</b>				
Audit Fees		5	5	4
Tax Audit Fees		2	2	1
In Other Capacity		4	4	3
Out of pocket Expenses	1	18	19	20
	1	29	30	28
Advertisement and publicity		338	338	323
Printing and stationery	12	258	270	223
EDP hire and other charges	6	45	51	69
Entertainment expenses	3	75	78	71
Brokerage & Commission		9	9	3
Donations		4	4	600
Research & development expenses		9	9	2
Rent	4	364	368	409
Directors Sitting fee		1	1	1
Miscellaneous expenses	25	761	786	489
Security Expenses	10	1209	1219	1027
Hiring of Vehicle	17	1235	1252	1128
Orissa Cyclone Insurance		1735	1735	50
Rates and taxes	4	99	103	1462
				124





### SCHEDULE 13 - TRANSMISSION, ADMINISTRATION AND OTHER EXPENSES

(Rupees in Lacs)

Description	RLDC	Transmission & others		For the Year Ended 31st March, 2001	For the Year Ended 31st March, 2000
Non operating expenses		6		6	10
Expenses for Guest House	4	30	34		28
Less Income from Guest House		3	3		4
	4	27		31	24
	439	<b>10801</b>		<u>11240</u>	<u>9962</u>
	2320	<b>43169</b>		<u>45489</u>	<u>32892</u>
Stores consumption included in repair and maintenance	2	791		793	358

### SCHEDULE 14 - PROVISIONS

(Rupees in Lacs)

Description		For The Year Ended 31st March, 2001	For The Year Ended 31st March, 2000
Shortage in Stores		1	6
Doubtful debts, loans and advances		17	101
Doubtful claims		—	12
Shortage in Construction Stores		—	8
Provision for obsolete Construction Stores		—	188
		<u>18</u>	<u>315</u>

### SCHEDULE 15 - INTEREST AND FINANCE CHARGES

(Rupees in Lacs)

Description	RLDC	Transmission & others		For the Year Ended 31st March, 2001	For the Year Ended 31st March, 2000
Interest on Loans From					
Government of India		28311		28311	25234
Cash Credit availed from Sch. Banks		1		1	2
Indian Banks, Financial Institutions and Corporations		16090		16090	12295
Foreign Banks and Financial Institutions		14580		14580	14358
Secured/Unsecured redeemable Bonds		19877		19877	17775
Others (Including interest u/s 234 C of IT Act)		39		39	49
		<b>78898</b>		<u>78898</u>	<u>69713</u>
Finance Charges					
Rebate to Customers	8	4250		4258	2950
Commitment charges		567		567	684
Others finance Charges( Including Difference in Exchange on Foreign Loans)		4375		4375	5486
	8	9192		<u>9200</u>	<u>9120</u>
	8	<b>88090</b>		<u>88098</u>	<u>78833</u>

**SCHEDULE 16 INCIDENTAL EXPENDITURE DURING CONSTRUCTION**

(Rupees in Lacs)

Description	RLDC	Transmission & others	For the Year Ended 31st March, 2001	For the Year Ended 31st March, 2000
<b>A. EXPENSES</b>				
<b>Employees Remuneration and Benefits</b>				
Salaries, wages, allowances and benefits		5121	5121	3256
Contribution to provident and other funds		746	746	419
Welfare expenses		571	571	435
		<b>6438</b>		<b>4110</b>
<b>Repairs &amp; Maintenance</b>				
Buildings		93	93	61
Others		44	44	47
		137	137	108
Power charges		102	102	130
Water charges		2	2	1
		<b>241</b>		<b>239</b>
<b>Administration Expenses</b>				
Legal expenses		37	37	50
Professional charges		24	24	24
Consultancy expenses		623	623	45
Communication expenses		240	240	179
Travelling & Conv.exp. (including foreign Travel)		964	964	724
Tender expenses		119	119	55
Less: Income from sale of tenders		24	24	11
		95	95	44
Payment to Auditors		10	10	9
Advertisement and Publicity		207	207	133
Printing and stationery		85	85	67
EDP hire and other charges		13	13	20
Entertainment expenses		28	28	23
Brokerage and commission		1	1	1
Rent		152	152	164
Miscellaneous expenses		619	619	586
Insurance		10	10	12
Rates and taxes		20	20	36
Depreciation		160	160	162
Guest House Expenses		5	5	4
		3293		<b>2283</b>
Prior Period adjustment (net)		40	40	13
<b>TOTAL (A)</b> ( Including Rs 107 lacs Transferred to Miscellaneous Expenditure to the extent Not Written Off /Adjusted)		<b>10012</b>	<b>10012</b>	<b>6645</b>
<b>B. INTEREST AND FINANCE CHARGES</b>				
<b>INTEREST ON LOANS FROM</b>				
Government of India		9553	9553	15165
Indian Banks, Financial Institutions and Corporations		6251	6251	7406
Foreign Banks And Financial Instutions		2032	2032	3812
Secured/Unsecured Redeemable Bonds		7141	7141	6678
		24977		<b>33061</b>


**SCHEDULE 16 INCIDENTAL EXPENDITURE DURING CONSTRUCTION**

(Rupees in Lacs)

Description	RLDC	Transmission & others	For the Year Ended 31st March, 2001	For the Year Ended 31st March, 2000
Finance Charges				
Commitment charges		440	440	523
Other Finance Charges		1613	1613	3230
		2053	2053	<b>3753</b>
<b>TOTAL (B)</b> ( Including Rs 1850 lacs Transferred to Miscellaneous Expenditure to the extent Not Written Off /Adjusted)		27030	27030	<b>36814</b>
<b>C. LESS OTHER INCOME</b>				
Hire charges		5	5	4
<b>Interest From</b>				
Banks		370	370	478
Others		1531	1531	320
		1901	1901	798
Miscellaneous income		73	73	43
<b>Total (C)</b>		1979	1979	<b>845</b>
<b>GRAND TOTAL (A+B-C)</b>		35063	35063	<b>42614</b>

**SCHEDULE 17 - PRIOR PERIOD ADJUSTMENTS (NET)**

(Rupees in Lacs)

Description	RLDC	Transmission & others	For the Year Ended 31st March, 2001	For the Year Ended 31st March, 2000
<b>Income</b>				
Depreciation written back - others		933	933	170
Transmission charges		281	281	317
Interest written Back- Others		566	566	
Reimbursement of RLDC Expenses				3516
Others	2	43	45	63
	2	1823	1825	<b>4066</b>
<b>Expenditure</b>				
Salaries, wages, allowances & benefits				2
Power charges				21
Depreciation	84	50	134	1818
Transmission charges written back on account of revision of tariff		2769	2769	1484
Interest		2	2	
Others	27	256	283	551
	111	3077	3188	3876
Prior period expenditure/income (Net)	109	1254	1363	-190

## SCHEDULE 18 : NOTES ON ACCOUNTS

1. The Transmission Systems situated in Jammu and Kashmir associated with National Hydroelectric Power Corporation Ltd. (NHPC) have been taken over w.e.f. 01.04.93 as mutually agreed upon by NHPC and the Company but regularisation is pending for completion of legal formalities.
2. The Regional Load Despatch Centres (RLDCs) of Central Electricity Authority were transferred to the Company (alongwith associated manpower) during the earlier years as per the orders of Ministry of Power, Government of India. The Assets of RLDCs are used by the company pending transfer of ownership and determination of cost of assets so taken over.
3. a) The land owned by the Company has been classified into freehold and leasehold to the extent possible based on available documentation and the balance has been shown as unclassified.  
b) In certain cases, the conveyancing of title to the freehold land and execution of lease agreement (value not ascertained) in favour of the company is pending for completion of legal formalities.  
c) Leasehold land includes Rs.764 lacs (previous year Rs.764 lacs) for land acquired in Katwaria Sarai, New Delhi. As the land is acquired on perpetual lease and it does not have a limited useful life, no depreciation has been charged.  
d) Value of buildings include Rs. 722 lacs (previous year Rs.722 lacs) for 28 flats at Mumbai, for which registration in favour of the company is pending.
4. Pending reconciliation, materials amounting to Rs. 242 lacs(previous year Rs.217 lacs) in commissioned lines is shown as construction stores lying with contractors.
5. Fixed Assets include company's share of Rs.562 lacs (previous year Rs.562 lacs) in common services and facilities of 400 KV sub-stations of Uttar Pradesh State Electricity Board (UPSEB) and Rajasthan State Electricity Board (RSEB) pending execution of formal agreements for joint ownership.
6. i) An amount of Rs 945 lacs (previous year - Rs. 11962 lacs) being exchange rate difference in respect of Fixed Assets and Capital Work in Progress has been adjusted in the carrying amount during the year.  
ii) Other Finance charges for the year includes an amount of Rs. 17 lacs (previous year-Rs.96 lacs) being the negative exchange rate difference on Current Assets. Other Income for the year includes an amount of Rs. 76 Lacs (previous years - NIL ) being the favorable exchange rate difference on current assets.
- 7.a) (i) Balances in sundry debtors, loans, advances and material with contractors are confirmed and reconciled except in some cases.  
(ii) Balances in Sundry Creditors account are pending confirmation from the parties.  
b) In the opinion of the management, the value of current assets, loans and advances, on realisation in the ordinary course of business, will not be less than the value at which these are stated in the Balance Sheet.
8. **I. CANBANK FINANCIAL SERVICES LIMITED (CANFINA)**
  - a) During the year 1991-92, pursuant to a contract with CANFINA, the company allotted Bonds worth Rs. 12000 lacs and placed a deposit of Rs. 11080 lacs with them (net of front -end fee of Rs. 920 lacs ) as a condition of the same contract. CANFINA defaulted on deposit repayment after making repayment of Rs. 1680 lacs. Pursuant to such default in 1993-94, the company forfeited bonds worth Rs.10320 lacs against deposit of Rs.9400 lacs and write-back of front-end fee of Rs.920 lacs. Subsequently, during 1994-95, the company restored deposits of Rs. 9400 lacs by credit to Capital Reserve in accordance with legal advice.
  - b) During 1998-99, on maturity of Rs. 1680 lacs worth of bonds not forfeited, the company repaid Rs. 103.34 lacs to third parties duly recognised by the company as holders, and in exercise of its lien on balance Rs.1576.66 lacs, set it off against deposits with CANFINA.
  - c) The company has neither accounted for interest income of Rs.939 lacs (previous year Rs.939 lacs), cumulative Rs. 9831 lacs on deposit with CANFINA, nor has accounted for cumulative



interest of Rs. 1876 lacs, payable upto maturity on bonds worth Rs.1576.66 lacs which were set-off against deposit with CANFINA in the year 1998-99.

- d) Matters referred to in para (a) above are pending for settlement with the High Power Committee on Disputes, Govt. of India.

## II. ANDHRA BANK FINANCIAL SERVICES LTD.(ABFSL)

- a) During the year 1991-92, pursuant to a contract with ABFSL, the company allotted Bonds worth Rs. 2500 lacs and placed a deposit of Rs. 2150 lacs with them (net of front-end fee of Rs. 350 lacs ) as a condition of the same contract. ABFSL defaulted on deposit repayment. Pursuant to such default, during 1993-94, the company forfeited bonds worth Rs.2100 lacs by adjustment of deposit of Rs.1806 lacs and write-back of front-end fee of Rs.294 lacs. Subsequently, during 1994-95, the company restored deposit of Rs. 1806 lacs by credit to Capital Reserve in accordance with legal advice.
- b) The company has neither accounted for interest income of Rs.296 lacs (previous year Rs.296 lacs), cumulative Rs. 2680 lacs, on deposit with ABFSL , nor has accounted for interest of Rs.36 lacs (previous year Rs.36 lacs), cumulative Rs. 324 lacs, payable on bonds worth Rs.400 lacs held by ABFSL.
- c) Matters referred to in para (a) above are pending for settlement with the High Power Committee on Disputes, Govt. of India.
9. Share Capital Deposit includes Rs.15789 lacs (previous year Rs.15789 lacs) representing the value of shares to be allotted against purchase consideration payable to Government of India for lines of Neyveli Lignite Corporation and NHPC Ltd.
10. During 89<sup>th</sup> NREB meeting it was decided that for the period 1992 to 1997, the transmission tariff would be in line with tariff notification of Ex NHPC system. However RSEB has not agreed and disputed the amount of Rs. 125 lacs due to methodology adopted by Power Grid. The matter is being persuaded with RSEB / NREB.
11. Estimated amount of contracts remaining to be executed on capital account and not provided for (net of advances and payments) is Rs. 320721 lacs (previous year Rs.91864 lacs).
12. No payment is overdue for the purchases made from small scale/ancillary industries. Hence, no provision of interest has been made in the accounts.
13. Provision has not been made for entry tax and sales tax on works contracts and materials issued to contractors, for which appeals are pending and/or the amounts are not ascertainable.
14. a) Pending final Notification of tariff in respect of some Transmission Lines, the Transmission charges including recovery on account of foreign exchange variation has been accounted for provisionally, as per the norms and factors defined in notification No. F.No. 2/3/Powergrid/Tariff/97 dated 16.12.97. Transmission Income of Rs. 2256 lacs (previous year Rs. 2822 lacs) in respect of the Transmission lines commissioned during the year has been accounted for, pending CERC notifications.
- b) Transmission Tariff for NER constituents has been accounted for at the UCPTT rate of 35 paise per unit as frozen in the 43rd NEREB meeting. In 47<sup>th</sup> NEREB meeting it was decided that if the generation is less, the balance amount shall be kept separately and shall be adjusted when generation is more. As agreed in the meeting with NEREB Constituents, an adjustment bill of Rs. 415 lacs (previous year Rs. 946 lacs) has not been accounted for.
- c) The Impact of decrease in the interest rates due to swapping of foreign currency loans with lower rates of interest for the year amounting to Rs. 353 lacs (Previous year Rs. 519 lacs) has been adjusted from the Transmission Income.
- d) The transmission tariff for Kishenpur-Moga Transmission system has been approved by CERC to the extent of original project cost of Rs. 41771 lacs as approved by the Government of India (GOI). Since the actual project cost, as per the petition filed by the Company to CERC is higher by Rs. 52077 lacs, and considering the observation of the CERC about the additional cost of the project, and pending approval of the revised cost by the GOI, there is reasonable uncertainty about the

transmission tariff relating to the increase in project cost. As such transmission tariff of Rs. 5800 lacs, relating to the unapproved project cost, has not been accounted for.

- e) In case of Abdullapur-Bawana and Nallagarh –Hissar Transmission System under Nathpa-Jhakri Transmission system and Bongaigaon – Malda Transmission System inter regional link under Kathalguri Transmission System(50% ER portion), CERC approved the transmission tariff to the extent of original project cost as approved by the Government of India . As the revised cost of these projects has also been approved by Government of India , pending CERC approval, full tariff based on actual project cost has been accounted for.
15. Purchase of power is net of subsidy of Rs. 4314 lacs received / recoverable from Ministry of External Affairs.
16. During the year, Govt. of U.P. on behalf of UPSEB and APPFCL on behalf of APTRANSCO have issued bonds for the outstanding dues, including Rs. 7830 lacs and Rs. 241 lacs respectively, towards surcharge. As per Accounting Policy No. 7.3, the surcharge has been accounted for as 'other income'.
17. Some of the Beneficiaries have not reimbursed the Income Tax recovery billed. Considering this aspect as significant uncertainty of recovery, Income- tax recovery billed to such Beneficiaries amounting to Rs. 1224 lacs (Grossed up Rs 1337 lacs) {previous year Rs. 5096 lacs (Grossed up Rs.5762 lacs)} has not been accounted for.
18. i) As a result of the change in Accounting policy as stated vide Accounting policy no. 4.1.(iv),the profit for the year has increased by Rs. 1957 lacs and the Miscellaneous Expenditure (to the extent not written off) has increased by the same amount.
- ii) The existing policy of amortising Bond issue expenses/Front End Fees (not covered under the loan agreements) over the tenure of Bonds/Loans has been discontinued . Unamortised Bond issue expenses / Front end fees etc. as on 31/03/2000 amounting to Rs. 468 lacs has been charged to the Profit & Loss Accounts for the year. Change in the Accounting policy as stated vide Accounting policy no. 4.1.(v), .has resulted in decrease in Profit by Rs. 306 lacs and decrease in Miscellaneous Expenditure (to the extent not written off) by Rs. 421 lacs and increase in CWIP by Rs. 115 lacs.
19. Other Income includes Rs 2502 lacs( previous year- Rs. 2502 lacs) being the amount transferred from Capital Reserve (Grants- in- Aid) as per Accounting Policy No. 1.0.
20. Tariff Notifications provide for availability based incentive to be recovered from the SEBs. As required in MOP letter no F. NO.2/3/Powergrid/Tariff/98 Dt. 4/2/99 availability in respect of all the Regions for Financial.Year 1997-98, 1998-99 and for 1999-2000 in respect of WRTS & ERTS has been certified during the year by the concerned Regional Electricity Boards. Based on this certification, incentive of Rs. 21884 lacs has been accounted for during the year as per details given below .
- |           |                 |
|-----------|-----------------|
| 1997-98   | = Rs. 8937 lacs |
| 1998-99   | = Rs. 9476 lacs |
| 1999-2000 | = Rs. 3471 lacs |
21. a) Consequent upon diversification into Telecom business, the company has incurred an expenditure of Rs. 994 lacs which has been included under Capital Work in Progress, Construction stores and Advances. The company has also spent revenue expenditure of Rs. 102 lacs, which is included under Miscellaneous Expenditure (to the extent not written off), to be amortised over the next five years.
- b) In respect of Telecom Business, a Bank Guarantee has been issued for Rs. 100 crores to Department of Telecommunication by creating a charge on the Current Assets.
22. Balance with schedule Banks on current accounts include Rs. 7973 lacs (Previous year Rs. 7317 lacs) being the amount of cheques received from Power Development Department , Jammu & Kashmir (J&K), and sent for collection to the J&K treasury, but not realised till date .
23. PSDP II loan (World Bank) provide retroactive financing of US \$ 45 Million from 01/03/2000. Accordingly supplies after 01/03/2000 are exempt from terminal excise duty. Some environmental and social issues are to be met by Talchar II power station for East-South Interconnector to become an eligible investment



project. Keeping this in view, an amount of Rs. 865 lacs is shown as Contingent liability.

24. a) Figures have been rounded off to nearest rupees in lacs.  
b) Previous year figures have been regrouped/rearranged wherever necessary.
25. a) Employees remuneration and benefits include the following for the Directors, including Chairman and Managing Director:

(Rupees in Lacs)

	Current Year	Previous year
Salaries and Allowances	28	19
Contribution to Provident Fund and other Funds, Gratuity and Group Insurance	3	3
Other benefits	11	3

- b) In addition to the above remuneration, the Whole time Directors have been allowed to use the staff car (including for private journeys) on payment of Rs. 780/- p.m. as contained in the Ministry of Finance (BPE) Circular No.2(18)/pc/64 dt. 29.11.64 as amended.

26. **QUANTATIVE INFORMATION IN RESPECT OF PURCHASE AND SALE OF POWER :**

	Current Year	Previous Year
a) Purchase of Power (Million Units)	1400	1507
b) Sale of Power (Million Units)	1400	1507

27. **a) VALUE OF IMPORTS CALCULATED ON CIF BASIS :**

(Rupees in Lacs)

	Current Year	Previous Year
i) Capital goods	18552	17473
ii) Spare Parts	102	472

**b) EXPENDITURE IN FOREIGN CURRENCY :**

(Rupees in Lacs)

	Current Year	Previous Year
i) Professional and Consultancy fees	595	793
ii) Interest	18531	15864
iii) Others	1852	2855

**c) VALUE OF COMPONENTS, STORES AND SPARE PARTS CONSUMED :**

(Rupees in Lacs)

	%	Current Year	%	Previous Year
i) Imported	-	NIL	0.18	1
ii) Indigenous (Including Fuel)	100	668	99.82	543

**d) EARNINGS IN FOREIGN EXCHANGE :****(Rupees in Lacs)**

	Current Year	Previous Year
i) Interest	374	436
ii) Others	140	313

**28. ADDITIONAL INFORMATION AS REQUIRED UNDER PART IV OF SCHEDULE VI OF THE COMPANIES ACT, 1956.****BALANCE SHEET ABSTRACT AND COMPANY'S GENERAL BUSINESS PROFILE.****i) REGISTRATION DETAILS :**

Registration No.	55-38121
State Code	55
Balance Sheet Date	31 <sup>st</sup> March 2001

**ii) CAPITAL RAISED DURING THE YEAR****(Rupees in Lacs)**

Public Issue	NIL
Rights Issue	NIL
Private Placement (Issued to Govt. of India)	1434
Bonus Issue	NIL

**iii) POSITION OF MOBILISATION AND DEPLOYMENT OF FUNDS****(Rupees in Lacs)**

Total liabilities	1469062
Total Assets	1469062

**Sources of funds**

Paid up capital	306388
Reserves and surplus	356458
Secured Loans	337836
Unsecured Loans	468380

**Application of Funds**

Net Fixed Assets	978438
Capital work-in-progress (including Construction, Stores and advance)	315345
Investments	39747
Net Current Assets	133249
Miscellaneous Expenditure	2283




**iv) PERFORMANCE OF COMPANY**
**(Rupees in Lacs)**

Turnover/Income	248465
Other Income (including consultancy and Transfer from Grants in Aid)	19797
Total expenditure	187037
Profit before Tax	81225
Profit after tax	74249
Earning per share (Rs.)	242.34
Dividend Amount	5000

v) Generic names of Principal product/service of company  
item code No. NOT APPLICABLE

Product Description: Transmission , Central Transmission Utility function and Sale of Power

( **Divya Tandon** )  
Company Secretary

( **Dr. V.K. Garg** )  
Director (Finance)

( **R.P. Singh** )  
Chairman and Managing Director

As per our report of even date

For **Hingorani M.& Co.**  
Chartered Accountants

For **Venugopal & Chenoy**  
Chartered Accountants

For **D.P. Sen & Co.**  
Chartered Accountants

(**Pardeep Kumar**)  
Partner

(**P.V. Sri Hari**)  
Partner

(**Abhijit Bandyopadhyay**)  
Partner

Place : SHIMLA  
Date : 15<sup>th</sup> June, 2001

## AUDITORS' REPORT

**The Members,  
Power Grid Corporation of India Limited,  
New Delhi.**

We have audited the attached Balance Sheet of Power Grid Corporation of India Ltd., as on March 31, 2001, and the annexed Profit and Loss Account of the company for the year ended on that date together with the Schedules and report that :-

1. The Company is governed by the Electricity (Supply) Act, 1948; the provisions of the said Act read with the rules thereunder, have prevailed wherever the same have been inconsistent with the provisions of the Companies Act, 1956.
2. As required by the Manufacturing and Other Companies (Auditor's Report) Order, 1988, issued by the Company Law Board in terms of section 227 (4A) of the Companies Act, 1956, we give in the Annexure a statement on the matters specified in paragraphs 4 and 5 of the said Order.
3. On the basis of the written representations received from the directors, and taken on record by the Board of Directors, we report that none of the directors is disqualified as on March, 31, 2001 from being appointed as a director in terms of clause (g) of sub-section (1) of section 274 of the Companies Act, 1956.
4.
  - i) Restoration of deposits of Rs. 11206 lacs as referred to vide Note No. 8 I(a) and 8 II(a) (Schedule 18) has resulted in overstating capital reserve and understating loan fund to such extent. In our opinion, the methodology of write back of front-end fee, restoration of deposit and showing external liability as capital reserve is not correct .
  - ii) Rs. 9973.34 lacs are deposits with CANFINA and ABFSL, as referred vide Note Nos. 8 I(a),(b) and 8 II (a) (Schedule-18), which though, according to the management, are good and recoverable, we are unable to express an opinion about the extent of recoverability.
  - iii) Set-off of maturity value of bonds of Rs.1576.66 lacs, during the year 1998-99, as referred to vide Note No. 8 I(c) (Schedule 18), against deposits with CANFINA has resulted in understatement of liabilities and current assets to such extent.
  - iv) Non accountal of interest payable on bonds, as referred vide Note No. 8 II(b) (Schedule 18), has resulted in overstatement of profit for the year by Rs. 36 lacs. Interest due on deposits with CANFINA and ABFSL has not been accounted for.
5.
  - i) Change in Accounting policy no. 4.1(iv), has resulted in increase in profit by Rs. 1957 lacs and increase in the Miscellaneous Expenditure (to the extent not written off or adjusted) by the same amount as stated vide note no. 18(i) in schedule 18.
  - ii) Change in the Accounting policy no. 4.1(v), has resulted in decrease in Profit by Rs. 306 lacs, decrease in Miscellaneous Expenditure (to the extent not written off or adjusted) by Rs. 421 lacs and increase in CWIP by Rs. 115 lacs as stated vide note no. 18(ii) in schedule 18.
- 6) Further to our comments in the annexure referred to in paragraph 2 above.
  - a) We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit.
  - b) In our opinion, proper books of account as required by law have been kept by the company, so far as appears from our examination of the books.
  - c) The Balance Sheet and Profit and the Loss Account dealt with by this report are in agreement with the books of account.
  - d) In our opinion, subject to our observations vide paragraph 1 above, the Profit and Loss Account and the Balance Sheet comply with the Accounting Standards referred to in Sub-Section (3C) of Section 211 of the Companies Act, 1956.
  - e) In our Opinion and to the best of our information and subject to our observations vide paragraph 4 above, and according to the explanations given to us, the said Balance Sheet and the Profit



and Loss Account, read together with the Notes on Accounts given in Schedule 18 and Accounting Policies, give the information required by the Companies Act, 1956, in the manner so required, and give a true and fair view :

- i) in so far as it relates to the Balance Sheet, of the State of Affairs of the company as at March 31,2001; and.
- ii) in so far as it relates to the Profit and Loss Account, of the profit of the Company for the year ended on that date.

For **Hingorani M.& Co.**  
Chartered Accountants

**(Pardeep Kumar)**  
Partner

For **Venugopal & Chenoy**  
Chartered Accountants

**(P.V.Sri Hari)**  
Partner

For **D.P. Sen & Co.**  
Chartered Accountants

**(Abhijit Bandyopadhyay)**  
Partner

Place : SHIMLA  
Date : June 15,2001.

**ANNEXURE REFERRED TO IN PARAGRAPH 2.00 OF OUR REPORT OF EVEN DATE**

- i) The Company has generally maintained record of Fixed Assets. However , such record do not, in some cases, give full particulars including location of Fixed Assets. The Assets are not comprehensively numbered and identified in certain cases. The Assets have been physically verified by external agencies at reasonable intervals and in a number of cases, discrepancies noticed on such verification have not been reconciled /adjusted.
- ii) None of Fixed assets of the company has been revalued during the year.
- iii) Physical verification of stores and spares has been conducted at reasonable intervals , except for materials lying with contractors/pending issue to contractors.
- iv) The procedure of physical verification, of stores followed by the company, is reasonable and adequate in relation to the size of the company and the nature of its business.
- v) Material discrepancies, noticed on physical verification in the stock of stores and spares have been properly dealt with in the accounts, except materials lying with contractors/ pending issue to contractors, where verification is not undertaken.
- vi) In our opinion and on the basis of our examination of the stock records, the valuation of stock is fair and proper in accordance with the normally accepted accounting principles, and is on the same basis as in the earlier years.
- vii) The company has not taken any loans from companies, firms or other parties listed in the register maintained under section 301 of the Companies Act, 1956. We were informed that there are no Companies under the same management.
- viii) The Company has not granted any loan to parties listed in the register maintained under section 301 of the Companies Act, 1956.
- ix) The company has given deposits of Rs 11080 lacs to Canbank Financial Sevices Ltd and Rs. 2150 lacs to Andhra Bank Financial Services Ltd, who have not repaid the principal amount and interest thereon. The company has informed us that they are taking reasonable steps for recovery of principal and interest. In case of other loans and advances, in the nature of loans, given by the company, the repayment of loan and interest, wherever applicable, are generally as stipulated.
- x) In our opinion and according to the information and explanations given to us, there are adequate internal control procedures, commensurate with the size of the company and the nature of its business, with regard to purchase of stores, components, plant and machinery, equipments and other assets, and for the sale of power.
- xi) According to the information and explanation given to us, there are no transactions of purchase/sale of goods, materials and services made in pursuance of contracts or arrangements entered in the register maintained under section 301 of the Companies Act, 1956, aggregating during the year to Rs 50000/- (Rupees fifty thousand only) or more, in respect of each party.
- xii) According to the information and explanations given to us, the Company has a system of determining unserviceable and damaged stores and the Company makes necessary adjustments in the accounts for any such stores.
- xiii) Since the Company has not accepted any deposit from the public, the question of compliance with the guidelines issued by the Reserve Bank of India and the provision of section 58-A of Companies Act, 1956, and rules framed thereunder, does not arise.
- xiv) The Company does not have any by-product. In our opinion, reasonable records have been maintained by the Company for sale and disposal of scrap.
- xv) The company has an Internal Audit system. In our opinion, the scope and coverage of Audit are commensurate with the size and nature of its business. However, the compliance and implementation mechanism needs to be strengthened.
- xvi) The Central Government has not prescribed maintenance of cost records under section 209(1)(d) of the Companies Act, 1956, in respect of the company.



- xvii) The Company is regular in depositing Provident Fund dues with the appropriate authority. As informed, the provisions of the Employees State Insurance Act are not applicable to the Company.
- xviii) According to the information and explanations given to us, there are no undisputed amounts payable in respect of Income tax, Wealth tax, Sales tax, Customs duty and Excise Duty which have remained outstanding as at March 31,2001, for a period of more than six months from the date they became payable.
- xix) According to information made available to us, no personal expenses have been charged to revenue account, other than those payable under contractual obligations or in accordance with generally accepted business practices.
- xx) The company is not a sick industrial company as defined in section 3(1)(o) of the Sick Industrial Companies (Special Provisions) Act , 1985.
- xxi) In regard to the Company's activities relating to Transmission of power, Telecom, consultancy, project management, supervision and contracts:-
- The Company has a reasonable system of recording receipts, issue and consumption of materials, stores, and allocating materials consumed to the relative jobs (including construction of infrastructure for providing transmission services) commensurate with the size and nature of its business.
  - The Company has reasonable system of allocation of man hours consumed, to respective activities.
  - The Company has a reasonable system of authorisation at proper levels, and adequate system of internal control on issue and allocation of stores and labour to jobs.
  - The Company has a reasonable system of recording receipts, issues and consumption of materials and stores, commensurate with the size and the nature of its business.
- xxii) In regard to the company's activities relating to the trading , since the company does not deal with tangible goods, the question of determination of damaged goods does not arise.

For **Hingorani M.& Co.**  
Chartered Accountants

For **Venugopal & Chenoy**  
Chartered Accountants

For **D.P. Sen & Co.**  
Chartered Accountants

**(Pardeep Kumar)**  
Partner

**(P.V.Sri Hari)**  
Partner

**(Abhijit Bandyopadhyay)**  
Partner

## ANNEXURE TO THE DIRECTORS' REPORT

### Annexure-I

#### Particulars of employees pursuant to section 217 (2A) of the Companies Act, 1956 for the year 2000-2001.

Sl. No.	Name	Designation	Qualification	Remuneration (Rs.)	Experience (Years)	Date of Commencement of Employment	Age (Years)	Last Employment held
Employed for the full year								
1.	Aggarwal S.K.	AGM(OS)	B.E. (Elect.), M-Tech.-IIT, Phd. (Mgmt. Study)	1352418	26	21.06.91	47	NTPC
Employed for the part of the year								
1.	Banerjee B.K.	Executive Director (Retired)	B.E. (Civil)	1379613	36	16.08.91	60	NTPC
2.	Bhatnagar A.K	Executive Director (Retired)	BSc., Engg.-Telecom	1077781	38	27.08.91	60	CMC
3.	Singh Kailash	Executive Director (Retired)	B.A.,L.L.B.	1443575	36	01.05.91	60	HSCL
4.	Kapur A.K.	Executive Director (Retired)	B.E.(E)	810861	38	15.07.91	60	CEA
5.	Kumar Virendra	Executive Director (Retired)	M.Tech. (Struct.Eng.)	1413192	24	16.08.91	60	NTPC
6.	Rao Gopal. V.	AGM (Retired)	B.E.(Mech.)	869456	39	16.08.91	60	NTPC

Notes: Remuneration includes Salary, Allowances, Leave Encashment, Leave Travel Concession, Payment for Subsidised Lease Accommodation, Reimbursement of Medical expenses to employees and Employer's contribution to Provident fund and other Funds. In addition employees are entitled to Gratuity/Group Insurance in accordance with Company's rules.

2) None of the employees listed above are related to any of the Directors of the Company.



## ANNEXURE TO THE DIRECTORS' REPORT

### Annexure-II

**PARTICULARS REQUIRED UNDER THE COMPANIES (DISCLOSURE OF PARTICULARS IN THE REPORT OF THE BOARD OF DIRECTORS) RULES, 1999 READ WITH SECTION 217 (1) (e) OF THE COMPANIES ACT, 1956.**

#### A. CONSERVATION OF ENERGY

##### a) Energy conservation measures taken and on hand :

The POWERGRID transmission system is designed in an optimal manner such that the losses in the transmission system are minimized. The various equipment parameters and types are so chosen such that the losses are optimized. Latest techniques/intelligent systems are being introduced in the designs for energy conservation like series compensation and shunt capacitor etc.

##### b) Additional investment and proposals, if any, being implemented for reduction for consumption of Energy :

Energy conservation measures are being adopted to make overall transmission systems more efficient.

##### c) Impact of measures at (a) and (b) above for reduction of energy consumption and consequent impact on the cost of production of goods :

Overall optimization is achieved as described above.

##### d) Total energy consumption and energy consumption per unit of production as per form "A" of the Annexure in respect of industries specified thereto :

This is not applicable for POWERGRID since it does not fall under any of the industries mentioned in the schedule.

#### B TECHNOLOGY ABSORPTION RESEARCH & DEVELOPMENT

- i) Installation of FACTS on POWERGRID's Kanpur-Ballabgarh 400 kV line has been taken up with BHEL as R&D project for indigenous development. It is a means to improve the stability and to increase the load carrying capability of the line.
- ii) POWERGRID in association with IIT, Kharagpur has developed a Real Time Digital Stimulator (RTDS) which is being used for power system analysis in real time operation.
- iii) POWERGRID is installing 50 MVAR controlled reactor at Itarsi substation on 400 kV Jabalpur-Itarsi ckt. 4 as an R&D project with BHEL. This reactor is likely to be commissioned in this year and shall provide regulation of reactive power absorption in a controlled manner, as per the system requirement.
- iv) POWERGRID has taken up development of in-house tower & foundation designs for use in transmission line project. 1 no.  $\pm$  500 kV HVDC, 1 no. 400 kV S/c & 4 nos. 400 kV D/c towers designed & successfully tested. Designs for 1 no. river crossing tower for  $\pm$  500 kV HVDC line (suitable for 12 nos. locations in Talcher project) and 1 no. river crossing tower for 400 kV D/c line (suitable for 7 nos. locations in Sasaram project) completed. 8 nos. pile foundation designs (suitable for 11 nos. locations in 800 kV Tehri-Meerut line) developed.
- v) POWERGRID has taken up R&D project for vibration measurement on transmission line conductors in association with CPRI.
- vi) POWERGRID has taken up initiative for installing wind measuring instruments on towers in critical wind prone areas for first hand information & assessment of wind speeds.
- vii) POWERGRID has completed preliminary designs and optimization studies for 800 kV D/c transmission line.
- viii) POWERGRID has examined various alternatives to increase the permissible conductor temperature limit of 400 kV lines. In order to increase thermal rating of lines, it has been proposed to increase the permissible conductor temperature limit from 75 degree Centigrade to 85 degree Centigrade for all future 400 kV lines and upto 95 degree Centigrade for selected corridors.
- ix) POWERGRID has developed 500 kV HVDC disc insulators indigenously with BHEL. Type testing for these insulators completed and supply has started.
- x) POWERGRID has taken up preliminary studies for 1100 kV S/c transmission line for adoption in future.
- xi) POWERGRID has taken up preliminary studies for adoption of weather predicted thermal rating systems for 400 kV transmission lines.

#### (c) FOREIGN EXCHANGE EARNINGS AND OUTGO

##### FOREIGN EXCHANGE EARNINGS:

	(Rs. in crores)
(i) Interest	3.74
(ii) Others	1.40
<b>Total</b>	<b>5.14</b>

##### FOREIGN EXCHANGE OUTGO:

(i) Capital goods and spare parts	186.54
(ii) Professional and Consultancy fee	5.95
(iii) Interest	185.31
(iv) Others	18.52
<b>Total</b>	<b>396.32</b>

Annexure-III

COMMENTS OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA UNDER SECTION 619(4) OF THE COMPANIES ACT, 1956 ON THE ACCOUNTS OF POWER GRID CORPORATION OF INDIA LIMITED FOR THE YEAR ENDED 31ST MARCH, 2001.

COMMENTS OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA

MANAGEMENT REPLY

BALANCE SHEET

Application of Funds

1. Fixed Assets - (Schedule-4)  
Land - Freehold : Gross Block  
Rs. 144.69 crore

The above includes a sum of Rs. 12.60 crore on account of cost of land earmarked to Power Welfare Organisation. As the Company handed over the physical possession of the land to the aforesaid organisation in April 2001, this fact should have been disclosed.

As the possession of land was handed over after the close of financial year, separate disclosure was not considered necessary.

2. Current Assets, Loans & Advances (Schedule-8)

Sundry Debtors : Rs. 1428.52 crore

This includes a sum of Rs. 15.88 crore on account of adjustment bills raised by the Company for the year 1998-99. The reconciliation statements of transmission charges as on 31st March, 2001, however, indicated that various State Electricity Boards had not agreed for the payment of aforesaid bills. This fact should have been disclosed by way of note in Notes on Accounts (Schedule-18).

In the REB meeting, POWERGRID had agreed to suspend the adjustment bill prospectively after 1998-99. Some of the SEBs have agreed/started making payment of the bill for 1998-99. In view of this, no disclosure was made.

GENERAL

3. Notes on Accounts (Schedule-18)

A reference is invited to Note No. 21 (a) of Notes on Accounts, according to which the Company has incurred an expenditure of Rs. 9.94 crore for Telecom business. However, the note does not disclose the fact that the Company has also incurred expenditure of Rs. 45.60 crore on the spare/excess capacity of optical fibre ground wire identified for Telecom business under Unified Load Despatch Communication scheme.

The cost of excess fibre will be booked to Telecom once the spare fibre are activated.

sd/-

(Revathi Bedi)

Principal Director of Commercial Audit and  
Ex-officio Member, Audit Board-III,  
New Delhi

Place : New Delhi  
Dated : 8th August, 2001

sd/-

(R. P. Singh)

Chairman & Managing Director  
Power Grid Corporation of India Ltd.  
New Delhi - 110016

Place : New Delhi  
Dated : 13th August, 2001





**REVIEW OF ACCOUNTS OF POWER GRID CORPORATION OF INDIA LIMITED, NEW DELHI  
FOR THE YEAR ENDED 31ST MARCH 2001 BY THE COMPTROLLER  
& AUDITOR GENERAL OF INDIA**

**Note :** This Review of Accounts has been prepared without taking into account comments under Section 619(4) of the Companies Act, 1956 and qualifications contained in the statutory Auditor's Report.

**1. FINANCIAL POSITION**

The table below summarises the financial position of the Company under broad headings for the last three years :

	1998-99	1999-2000 (Rs. in Crores)	2000-01
<b>1. LIABILITIES</b>			
a) Paid-up capital			
Government (including share application money pending allotment)	3041.54	3049.54	3063.88
b) Reserves and Surplus			
i) Free Reserves and Surplus	1920.59	2508.01	3206.04
ii) Share Premium Account	-	-	-
iii) Capital Reserves	408.70	383.68	358.54
c) Borrowings from :			
i) Government of India	1650.26	1858.02	1852.58
ii) Financial Institutions	13.26	157.60	156.05
iii) Foreign currency Loans	2665.26	3283.57	3385.81
iv) Cash Credit	6.02	7.48	0.02
v) Others	2196.28	2007.70	2667.70
d) i) Current Liabilities and Provisions	714.34	876.36	914.86
ii) Provision for Gratuity	-	-	-
<b>Total</b>	<b>12616.25</b>	<b>14131.96</b>	<b>15605.48</b>
<b>2.</b>			
e)Gross Block	8850.68	11449.55	13260.92
f)Less : Depreciation	2175.31	2770.64	3476.54
g)Net Block	6675.37	8678.91	9784.38
h)Capital Work-in-Progress & Construction Stores & Advances	4306.67	3251.16	3153.45
i)Investments	-	151.47	397.47
j)Current Assets, Loans and Advances	1627.46	2042.15	2247.35
k)Misc Expenditure not written off	6.75	8.27	22.83
l)Accumulated loss	-	-	-
<b>Total</b>	<b>12616.25</b>	<b>14131.96</b>	<b>15605.48</b>

m) Working Capital (j-d(i))	913.12	1165.79	1332.49
n) Capital Employed (g+m)	7588.49	9844.70	11116.87
o) Net Worth (a+b(i)+b(ii)-k)	4955.38	5549.28	6247.09
p) Net worth Per Rupee of Paid-up capital (in Rupees)	1.63	1.82	2.04

## 2. SOURCES AND UTILISATION OF FUNDS

Funds amounting to Rs. 2226.41 Crores from internal and external sources were realised and utilised during the year as detailed below :

### SOURCES OF FUNDS

	(Rs. in crores)	
a) Funds from operations :		
Profit after tax	742.49	
Add : Depreciation	705.90	
Add : Misc. expenditure written off	5.25	
Add : Net Increase in Insurance Reserve	<u>10.64</u>	
		1464.28
b) Increase in paid-up capital		14.34
c) Increase in Borrowed funds		<u>747.79</u>
<b>Total</b>		<b><u>2226.41</u></b>

### UTILISATION OF FUNDS

a) Increase in Fixed assets	1811.37	
Add : Increase in Capital Work in Progress	-271.54	
Increase in Construction Stores & Advances	<u>173.83</u>	
		1713.66
b) Increase in working capital (excluding proposed dividend)		199.60
c) Grant Utilised		25.14
d) Dividend paid (Including tax on Proposed Dividend)		22.20
e) Increase in Misc. expenditure		19.81
f) Increase in Investments		246.00
<b>Total</b>		<b><u>2226.41</u></b>

## 3. WORKING RESULTS

The working results of the Company for the last three ending 31st March 2001 are given below :

	1998-99	1999-2000	2000-01
	(Rs. in crores)		
i) Sales	1722.57	1979.06	2497.48
ii) Other Income	47.69	144.81	185.14



iii) Profit before tax and prior period adjustments	512.66	678.74	825.88
iv) Prior Period Adjustments	-15.63	1.90	-13.63
v) Profit before tax	497.03	680.64	812.25
vi) Provision for tax	52.61	79.76	69.76
vii) Profit after tax	444.42	600.88	742.49
viii) Proposed Dividend plus dividend tax	22.20	22.20	55.10

#### 4. RATIO ANALYSIS

Some important ratios on the financial health and working of the company at the end of last three years ending 31st March 2001 are as under :

	1998-99	1999-2000	2000-01
A. Liquidity Ratio (j/d(ii))	2.28	2.33	2.46
B. Debt Equity Ratio Long terms debt to Net worth (c(i to v) but excluding short term loans/c)	1.32	1.32	1.25
C. Profitability Ratios	(in percentage)		
a) Profit after tax to			
i) Capital Employed	5.86	6.10	6.68
ii) Net worth	8.97	10.83	11.89
iii) Sales (including excise duty)	25.80	30.36	29.73
b) Profit after tax to Equity	14.61	19.70	24.23
c) Earning per share (in Rupees)	146.12	197.04	242.34

#### 5. INVENTORY LEVELS

The inventory levels at the close of the last three years ending 31st March 2001 are as under :

	1998-99	1999-2000	2000-01
			(Rs. in crores)
Stores and spares and Losse tools	134.66	156.55	156.48

#### 6. SUNDRY DEBTORS

The Sundry Debtors and Sales during the last three years ending 31st March 2001 are as follows :

As on 31st March	Sundry Debtors			Sales (including Excise duty)	Percentage of Sundry Debtors to Sales
	Considered good	Considered doubtful	Total		
1999	1012.74	-	1012.74	1722.57	58.79
2000	1236.39	-	1236.39	1979.06	62.47
2001	1428.52	-	1428.52	2497.48	57.20

The agewise break up of Sundry Debts at the end of 2000-01 is as under :

<b>Debtors outstanding for</b>	<b>Amount (Rs. in Crores)</b>
Less than 6 months	704.39
6 months to 1 year	270.51
1 Year to 3 years	449.89
More than 3 Years	3.73
<b>Total</b>	<b>1428.52</b>

**(Revathi Bedi)**  
Principal Director of Commercial Audit  
and Ex-Officio Member  
Audit Board - III  
New Delhi

**Place** : New Delhi  
**Dated** : 8 August 2001



## CURRENT COST ACCOUNTS

In the context of persistent inflation in the Indian economy, the corporation has attempted to perceive the impact of price changes on its financial position and working results. The current cost accounts shown hereunder reflect the current values of assets of the Corporation which mainly comprise fixed assets. We believe that current cost accounting assumes special importance in the case of the public utility like our Corporation, the prices of whose service are determined by reference to the related costs rather than by the market forces of demand and supply as in the case of other business enterprises. If the prices of the services rendered by a public utility are determined on the basis of cost as indicated by the historical cost-based accounts, they would not cover the current cost depreciation and other current costs being incurred. Over a period of time, the enterprise will not be able to maintain its operating capability even though it may show profit as per conventional historical cost based accounts. It is perhaps for this reason that internationally, many public utilities prepare even their main accounts on the basis of current cost accounting.

### Basis of Current Cost Accounting of the Corporation

1. The exercise has been conducted on the basis of the principles enunciated in the Guidance Note on Accounting for Changing prices issued by the Institute of Chartered Accountants of India.
2. The current cost adjustments have generally been made on the basis of specific indices for various items. These indices have been computed by the Corporation as below :

Plant and Machinery constitute about 95% of the total fixed assets of the corporation. Further, out of the various items of plant and machinery, ten specific items constitute about 95% of the total value of plant and machinery. The indices for various items of plant and machinery have been worked out on the basis of an appropriate combination of :-

- i) Detailed indices comprising the wholesale price index published by the Office of the Economic Advisor, Department of Industrial Policy & Promotion, Ministry of Industry, Govt. of India, and
- ii) Indices of specific items as circulated by the Indian Electrical and Electronic Manufactures Association.

## FIXED ASSETS

Fixed Assets are stated at their gross current replacement cost by applying the relevant specific indices to the gross book value of each category of fixed assets. The net current replacement cost has been arrived at by charging depreciation on the gross current replacement cost at the rate specified under the Electricity (Supply) Act. 1948.

The life of fixed assets acquired from other enterprises have been worked out on the basis of the original cost, rate of depreciation and the written down value.

## CAPITAL WORK-IN-PROGRESS

Since the gestation period is 3-5 years for the each project, capital work-in-progress has also been stated at its current replacement cost.

## INVENTORIES

Since inventories comprise mainly machinery spares, they have been restated on the basis of the indices used for the relevant items of plant and machinery.

## OTHER ASSETS AND LIABILITIES

Cash, sundry debtors, loans and other liabilities have not been revalued since these are already expressed in current monetary terms.



## DEPRECIATION ADJUSTMENT

The depreciation adjustment represent the difference between the amount of depreciation computed on the current cost of fixed assets and the amount of depreciation charged in the historical cost accounts.

## GEARING ADJUSTMENT

As a part of the operating assets of the Corporation is financed through borrowings which are to be repaid in the same monetary amount irrespective of changes in price, the full impact of price changes as reflected by the depreciation adjustment has been reduced by adding back a proportionate amount while determining the current cost profit attributable to shareholders.

The current cost reserve represents, unrealised revaluation surplus on fixed assets, adjustment in respect of depreciation and the gearing adjustment.



## CURRENT COST BALANCE SHEET

As at 31st March, 2001

(Rupees in Lacs)

		As at 31st March, 2001	As at 31st March, 2000
<b>NET ASSETS EMPLOYED</b>			
Gross Block	2139495		1863092
Less : Accumulated Depreciation	<u>638230</u>		540672
Net Block		1501265	1322420
Capital Work-in-Progress		259141	278647
Construction Stores and Advances		137291	117260
Investments		39747	15147
<b>NET CURRENT ASSETS</b>			
Inventories	16368		15790
Other Current Assets	<u>209087</u>		<u>188560</u>
		<u>225455</u>	204350
Less : Current Liabilities and Provisions	<u>91486</u>		87636
		133969	116714
Miscellaneous Expenditure (to the extent not written off or adjusted)		<u>2283</u>	<u>827</u>
		<u>2073696</u>	<u>1851015</u>
<b>FINANCED BY SHAREHOLDERS FUNDS</b>			
Share Capital	306388		304954
Current Cost Reserve	637564		554859
Other Reserves and surplus	<u>323528</u>		259765
		1267480	1119578
<b>LOAN FUNDS</b>			
Secured Loans	337836		355839
Unsecured Loans	<u>468380</u>		375598
		806216	731437
		<u>2073696</u>	<u>1851015</u>

## CURRENT COST PROFIT AND LOSS ACCOUNT

As at 31st March, 2001

(Rupees in Lacs)

	For the year ended 31st March, 2001	For the year ended 31st March, 2000
Profit before Interest and Finance charges and Taxation (On Historical Cost basis)	142293	110083
Less : Depreciation Adjustment	<u>48469</u>	<u>44027</u>
Current Cost operating Profit	93824	66056
Add : Gearing Adjustment	<u>15539</u>	<u>14623</u>
	109363	80679
Less : Interest and Finance Charges	61068	42019
Provision for Taxation	<u>6976</u>	<u>7976</u>
	68044	49995
Current Cost Profit Attributable to Shareholders	<u>41319</u>	<u>30684</u>





## CASH FLOW STATEMENT FOR THE YEAR ENDED MARCH 31st, 2001

	For the year ended 31st March, 2001 (Rupees in Lacs)	For the year ended 31st March, 2000 (Rupees in Lacs)
<b>A. CASH FLOW FROM OPERATING ACTIVITIES</b>		
Net profit before tax	81225	68064
<b>Adjustment for:</b>		
Depreciation	70913	59411
Amortised Expenditure	525	178
Provisions	939	324
Interest	61068	42019
Operating Profit before Working Capital Changes	214670	169996
<b>Adjustment for:</b>		
Trade and other Receivables	-19213	-22365
Inventories	66	-2195
Trade payables and other liabilities	-6416	8226
Other current assets	2990	-395
Deferred Revenue Expenditure	-2236	-330
Cash generated from operations	-24809	-17059
Interest paid	-61068	-42019
Direct taxes paid	-6627	-7682
Net Cash from operating Activities	122166	103236
<b>B. CASH FLOW FROM INVESTING ACTIVITIES</b>		
Purchase of fixed assets	-713	-16279
Capital work-in- progress	-153337	-126059
Advance for Capital Goods	-17302	-11207
Loans and Advances	9359	-1955
Investments	-24600	-15147
Net cash used in investing Activities	-186593	-170647
<b>C. CASH FLOW FROM FINANCING ACTIVITIES</b>		
Proceeds from issue of Share Capital	1434	800
Proceeds from Long term borrowings	74779	78329
Proceeds from Grants in Aid	-2514	-2502
Dividend paid	-2220	-2220
Net Cash from Financing Activities	71479	74407
<b>D. Net change in Cash and Cash equivalents (A+B+C)</b>	7052	6996
<b>E. Cash and cash equivalents(Opening balance)</b>	23474	16478
<b>F. Cash and cash equivalents(Closing balance)</b>	30526	23474

**NOTE:** Cash and Cash Equivalents consist of Cash in hand and balance with banks.

<p><b>(Divya Tandon)</b> Company Secretary</p>	<p><b>(Dr.V.K.Garg)</b> Director (Finance)</p>	<p><b>(R.P.Singh)</b> Chairman &amp; Managing Director</p>
<p><b>As per our report of even date</b></p>		
<p>For <b>Hingorani M. &amp; Co.</b> Chartered Accountants</p>	<p>For <b>Venugopal &amp; Chenoy</b> Chartered Accountants</p>	<p>For <b>D.P.Sen &amp; Co.</b> Chartered Accountants</p>
<p><b>(Pardeep Kumar)</b> Partner</p>	<p><b>(P.V.Sri Hari)</b> Partner</p>	<p><b>(Abhijit Bandyopadhyay)</b> Partner</p>

Place: Shimla  
Date: 15th June'2001

## AUDITORS' CERTIFICATE

To

The Board of Directors,  
Powergrid Corporation of India Limited.,  
New Delhi.

We have examined the attached Cash Flow Statement of Powergrid Corporation of India Limited, for the period ended March 31,2001.The statement has been prepared by the Company in accordance with the requirements of listing agreement Clause-32 with Stock Exchanges and is based on and is in agreement with the corresponding Profit & Loss Account and Balance Sheet of the Company covered by our report of 15th June,2001 to the Members of the Company.

For **Hingorani M.& Co.**  
Chartered Accountants

For **Venugopal & Chenoy**  
Chartered Accountants

For **D.P. Sen & Co.**  
Chartered Accountants

**(Pardeep Kumar)**  
Partner

**(P.V.Sri Hari)**  
Partner

**(Abhijit Bandyopadhyay)**  
Partner

Place: SHIMLA  
Date : 15th June,2001





Power Grid Corporation  
of India Limited

(A Govt. of India Enterprise)

Regd. Office : B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110 016  
website: <http://www.powergridindia.com>