Listed Company with public holding of 30.58% and balance by Government of India

Central Transmission Utility of the country since 1998

Profit making Company since inception

Carries more than 50% of Country’s electric power & majority of Inter-regional power

Miniratna since 1998 and conferred with Navratna status in May, 2008
AREA OF OPERATION

Development of Central Sector Transmission System

- Generation Linked schemes
- Grid Strengthening schemes
- Inter-regional links
- Inter-national links

Grid Management*

- Establishment of modern Load Despatch Centres
- Real-time Grid Operation
- Optimum scheduling & despatch
- Energy accounting including settlements

* Grid Management is being looked after by POSOCO, a fully owned subsidiary of POWERGRID as per GOI Directive

Consultancy - National & International

- Transmission
- Load Despatch & Communication
- Distribution
- Telecom

Telecom

- Owns & Operate Fibre optic cable network
- Licenses – National Long Distance Operator (NLDO), Internet Service Provider (ISP) and Infrastructure Provider (IP-I)
Present Inter Regional Power Transfer Capacity 22,400 MW

Inter Regional Power Transfer Capacity by 2012 - 28,000 MW

Earlier, Five Regional Grids Five Frequencies

October 1991 East and Northeast synchronized
March 2003 West synchronized With East & Northeast
August 2006 North synchronized With Central Grid

Future: Country wide synchronous Grid

NATIONAL GRID - FOR EFFECTIVE UTILISATION OF RESOURCES
About 85-90% of income comes from transmission business.
Transmission Lines
81,456 Ckm

Sub-stations
132 Nos.

Transformation capacity
90,900 MVA

System availability
> 99%

Employees
9,846

Established National Grid
IR capacity – 22,400 MW

Turnover
FY 2010-11 (Upto III Qtr)
₹ 6,518 Crore

Net Profit
FY 2010-11 (Upto III Qtr)
₹ 1,946 Crore
# Strong and Stable Financial Performance

(\text{In ₹ Crores, except per share data})

9 Month Ended 31 December, 2010

<table>
<thead>
<tr>
<th>Description</th>
<th>Upto III Qtr 2009-10</th>
<th>Upto III Qtr 2010-11</th>
<th>Y-o-Y Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transmission Charges</td>
<td>4,746</td>
<td>5,683</td>
<td>19.7%</td>
</tr>
<tr>
<td>Consultancy</td>
<td>163</td>
<td>208</td>
<td>27.6%</td>
</tr>
<tr>
<td>Telecom</td>
<td>122</td>
<td>131</td>
<td>7.4%</td>
</tr>
<tr>
<td>Short Term Open Access Income</td>
<td>75</td>
<td>156</td>
<td>108.0%</td>
</tr>
<tr>
<td>Other Income</td>
<td>274</td>
<td>340</td>
<td>24.1%</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td>5,380</td>
<td>6,518</td>
<td>21.1%</td>
</tr>
<tr>
<td><strong>Profit After Tax (PAT)</strong></td>
<td>1,494</td>
<td>1,946</td>
<td>30.2%</td>
</tr>
<tr>
<td>Earnings per Share (₹)</td>
<td>3.55</td>
<td>4.58</td>
<td>29.0%</td>
</tr>
<tr>
<td>Book Value per Share (₹)</td>
<td>38.28</td>
<td>46.62</td>
<td>21.8%</td>
</tr>
<tr>
<td><strong>Gross Fixed Assets</strong></td>
<td>41,626</td>
<td>48,991</td>
<td>17.7%</td>
</tr>
<tr>
<td><strong>Net Worth</strong></td>
<td>16,113</td>
<td>21,573</td>
<td>33.9%</td>
</tr>
<tr>
<td>Return on Net Worth*</td>
<td>9.27%</td>
<td>9.02%</td>
<td></td>
</tr>
<tr>
<td>Debt Equity Ratio</td>
<td>66:34</td>
<td>65:35</td>
<td></td>
</tr>
<tr>
<td>Capitalisation</td>
<td>3,093</td>
<td>6,827</td>
<td>120.7%</td>
</tr>
</tbody>
</table>

* Not Annualised
POWERGRID plans to invest about ₹ 55,000 Crore during XI Plan for providing matching transmission systems for generation capacity addition under central sector and other projects entrusted to it including UMPPs.

Year-wise estimated investment is:

<table>
<thead>
<tr>
<th>Year</th>
<th>Investment (₹ in Crore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-08</td>
<td>6,656 (actual)</td>
</tr>
<tr>
<td>2008-09</td>
<td>8,167 (actual)</td>
</tr>
<tr>
<td>2009-10</td>
<td>10,617 (actual)</td>
</tr>
<tr>
<td>2010-11</td>
<td>11,900 (Estimate)</td>
</tr>
<tr>
<td>2011-12</td>
<td>17,700 (Estimate)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>~ 55,000</strong></td>
</tr>
</tbody>
</table>

Provisional estimate more than ₹1,00,000 Crore for XII Plan.
# FUND MOBILISATION – XI PLAN

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Description</th>
<th>Amount (₹ Crore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>Equity *</td>
<td>15,656</td>
</tr>
<tr>
<td>(ii)</td>
<td>Foreign loans (ADB, IBRD, Suppliers Credit)</td>
<td>9,195</td>
</tr>
<tr>
<td>(iii)</td>
<td>Domestic loans already mobilized</td>
<td>18,183</td>
</tr>
<tr>
<td>(iv)</td>
<td>Balance to be tied-up (Domestic Market)</td>
<td>11,966</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>55,000</strong></td>
</tr>
</tbody>
</table>

* Includes ₹ 1966 crores of IPO proceeds & ₹ 2800 crores out of total FPO proceeds of ₹ 3721 crores
## XI PLAN : PHYSICAL

<table>
<thead>
<tr>
<th>Parameter</th>
<th>At the end of X Plan</th>
<th>Cumulative by end of XI Plan</th>
<th>As on 31.12.2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission network length (in Ckm)</td>
<td>59,460</td>
<td>94,460</td>
<td>81,456</td>
</tr>
<tr>
<td>Transformation capacity (in MVA)</td>
<td>59,415</td>
<td>115,415</td>
<td>90,900</td>
</tr>
</tbody>
</table>
Need to be developed in phases matching with Commissioning of Generation Projects.

Cluster of Generation pockets

Cluster of Concentrated Demand pockets

Creation of High Capacity 765 kV/1200 kV AC corridors and ± 800 kV, 6000 MW HVDC Transmission Highways.

Work for developing these corridors has commenced.

Regulatory approval from CERC for implementation of these corridors matching with generation addition is available.
LONG TERM ACCESS (LTA):

- Number of Independent Power Producers (IPPs) plans to set-up power generation plants of different capacity with various time schedules in the country, mainly in resource rich States, i.e. Orissa, Jharkhand, Sikkim, Madhya Pradesh, Chhattisgarh, Andhra Pradesh, Tamil Nadu etc..
- POWERGRID, the CTU is the nodal agency for granting LTA for inter-State transmission of power.
- Integrated Planning of Transmission System has been done in view of overall economy and feasibility.
- 9 nos. of High Capacity Power Transmission Corridors (with HVDC links/765 kV UHVAC) have been evolved in consultation with CEA, IPPs & beneficiaries and regulatory approval granted by CERC.
- Estimated cost of these corridors is about `58,000 Crore.
TELECOM BUSINESS

Diversified into telecom business
for leveraging country wide transmission infrastructure

Telecom network on transmission infrastructure
is secure, rodent menace free and vandalism proof

- **Telecom network established**
  - ≈21,000 Km

- **Network availability**
  - > 99.9%

- **Highly reliable & competitive telecom services**

- **Connectivity provided**
  - to metros, major cities & towns

- **Customer Base**: Major Telcos, MNCs, BPOs, Govt, Corporate & Media

- **Marked presence in remote areas of the country**

Telecom tower leasing business: Tender floated for leasing of tower space in 4 circles i.e J&K, HP, Punjab & Haryana as a proof of concept. Bids opened and evaluation is under process.
Providing consultancy services to various National & International clients in the field of transmission, load despatch and distribution management.

Company has emerged as a strong player in transmission sector in South Asia, Middle-east Asia & African countries.

Providing consultancy services in United Arab Emirates (UAE) and Bangladesh.

In South Asia the Company has connected Indian grid with Nepal & Bhutan.

Connection with Sri Lanka & Bangladesh are under way / finalisation to harness precious natural generation resources for sustainable development in the region.

Served over 115 clients in over 330 domestic and international projects since fiscal 1995.

72 projects in hand for consultancy as at Dec 31, 2010.
**TECHNOLOGY UPGRADATION**

- Fixed & Variable Series Compensation for increased power transfer capacity.
- Operating voltage increased to 765 kV AC
- Up-gradating of existing lines
- Gas Insulated S/s (GIS) for optimization of space in urban & hilly areas
- Hotline maintenance, Insulator cleaning with helicopter, Use of Emergency Restoration System for quick restoration of lines
- Implementation of ±800kV, 6000 Megawatt HVDC Bi-pole line from North Eastern Region to Northern Region (Agra) has commenced.
- Development of 1200kV Ultra High Voltage AC (UHVAC)
- Taking leadership initiative for implementation of Smart Grid technology.
OPERATIONAL EXCELLENCE – UPCOMING INITIATIVES

Mobile Sub-stations
- For faster restoration of supply
- Restoration time - 10 to 15 days.
- In- Principle acceptance from CERC & Beneficiaries

Aerial Patrolling of Transmission Lines
- Ministry of Defense/ DGCA are approached
- Use of Unmanned Aerial Vehicle (UAV) is also being explored

National Transmission Management Centre
- To enhance Grid reliability while improving Asset Productivity
- Reduction in down time
- Availability of Experts round the clock

On Line Transformer Monitoring
- For prediction of fault in advance
ACCOLADES AND AWARDS


- Green Award-2006 by The World Bank

- One of the best managed and 3rd largest transmission utility in the world, as per The World Bank report.

- Biggest beneficiary of The World Bank loans.

- Features in the Forbes’ list of Top 2000 Global Companies for 2010.

- Ranked at 8th and 18th position amongst fastest growing Energy Companies in Asia and Globally respectively by Platts for 2010.
Thank You