



Power Grid Corporation of India Limited

Analysts Presentation February 9, 2011



POWERGRID – AN OVERVIEW

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

Telecom

- Owns & Operate Fibre optic cable network
- Licenses – National Long Distance Operator (NLDO), Internet Service Provider (ISP) and Infrastructure Provider (IP-I)

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*

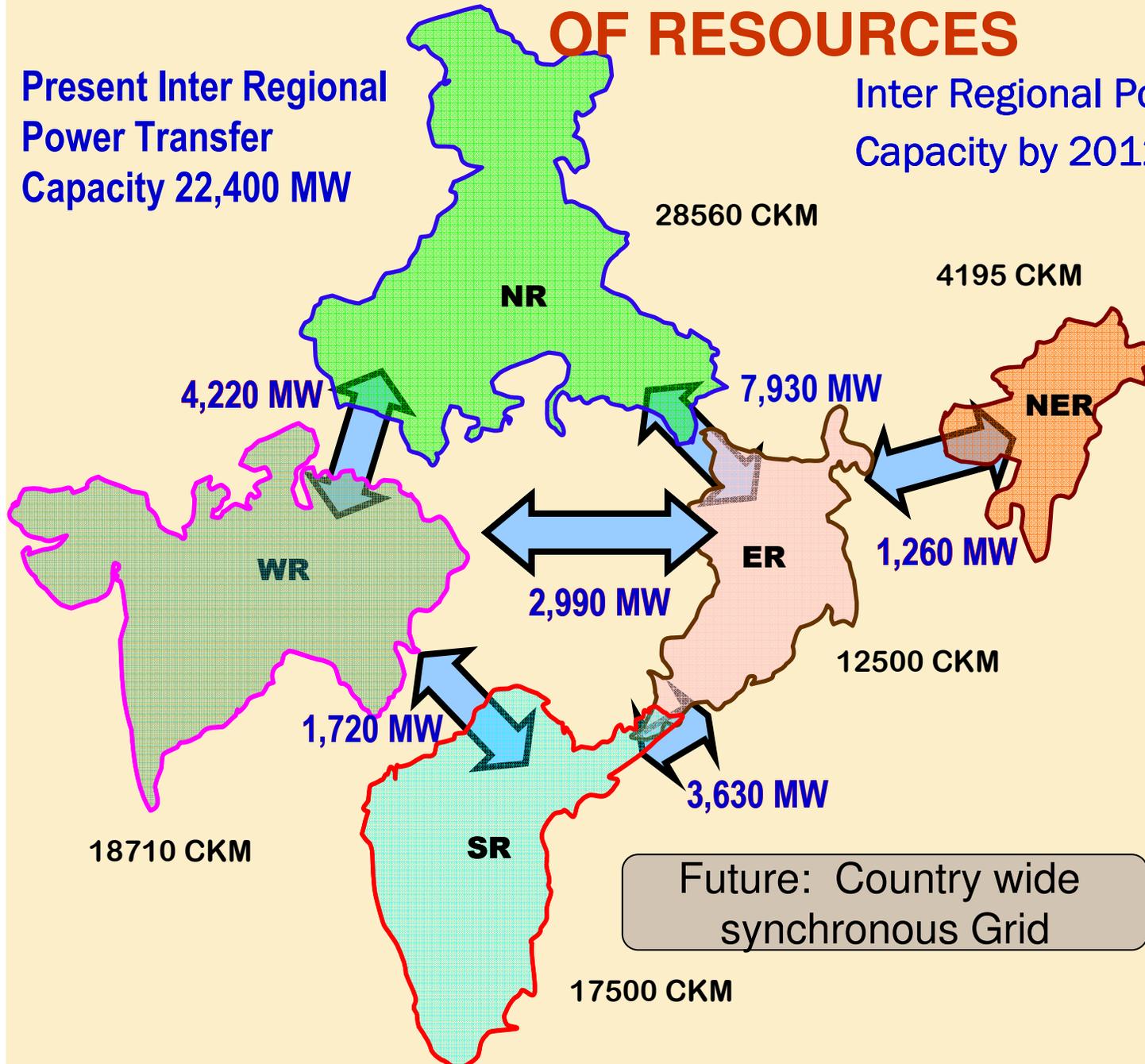
Consultancy - National & International

- Transmission
- Load Despatch & Communication
- Distribution
- Telecom

NATIONAL GRID - FOR EFFECTIVE UTILISATION OF RESOURCES

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

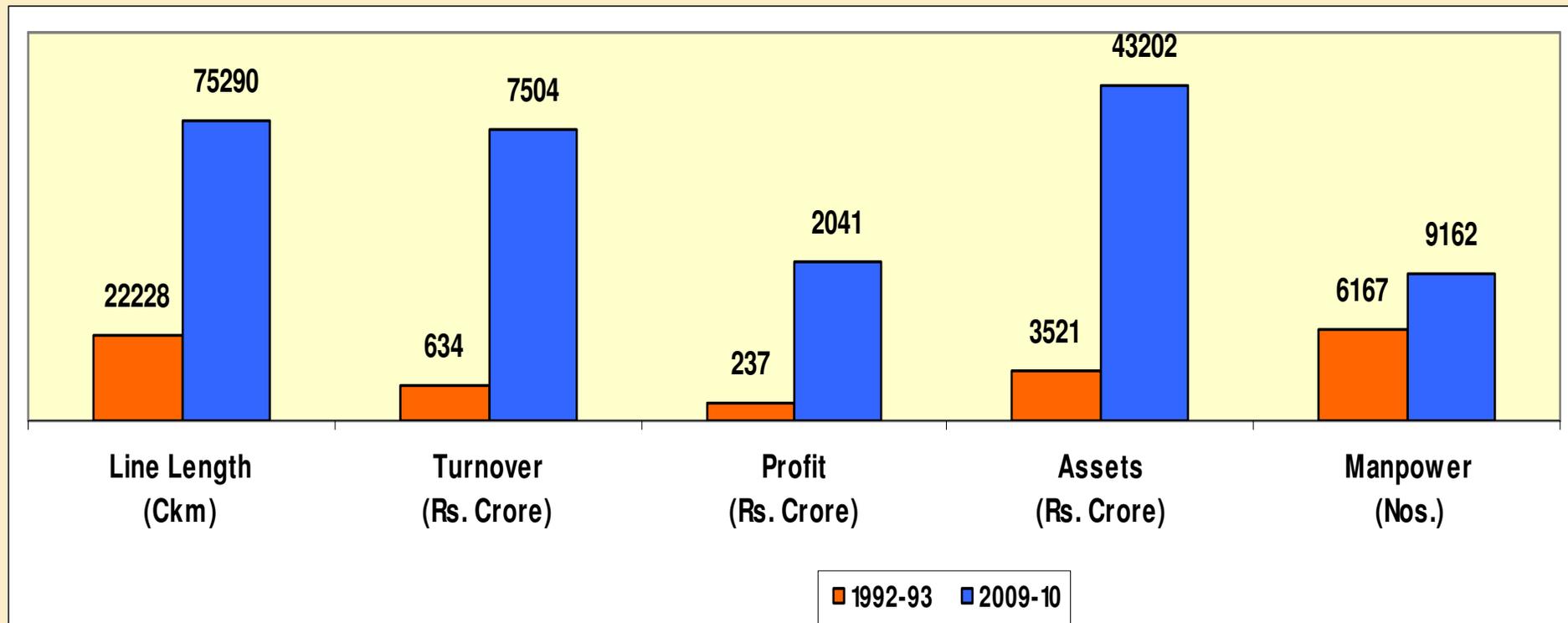
October 1991 East and Northeast synchronized

March 2003 West synchronized With East & Northeast

August 2006 North synchronized With Central Grid

Future: Country wide synchronous Grid

COMPANY'S GROWTH IN LAST 18 YEARS



- **Circuit kilometer** - **239 %**
- **Turnover** - **1084 %**
- **Profit** - **763 %**
- **Assets Growth** - **1127 %**
- **Manpower** - **49 %**

**About 85-90% of
income comes from
transmission business**

POWERGRID - AS ON 31.12.2010

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

(In ₹ Crores, except per share data)

9 Month Ended 31 December, 2010

Description	Upto III Qtr 2009-10	Upto III Qtr 2010-11	Y-o-Y Growth
Income			
Transmission Charges	4,746	5,683	19.7%
Consultancy	163	208	27.6%
Telecom	122	131	7.4%
Short Term Open Access Income	75	156	108.0%
Other Income	274	340	24.1%
Total Income	5,380	6,518	21.1%
Profit After Tax (PAT)	1,494	1,946	30.2%
Earnings per Share (₹)	3.55	4.58	29.0%
Book Value per Share (₹)	38.28	46.62	21.8%
Gross Fixed Assets	41,626	48,991	17.7%
Debt	31,319	40,014	27.8%
Net Worth	16,113	21,573	33.9%
<i>Return on Net Worth*</i>	9.27%	9.02%	
Debt Equity Ratio	66:34	65:35	
Capitalisation	3,093	6,827	120.7%

* Not Annualised

XI PLAN INVESTMENT PROGRAMME

- ❖ 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:

Year	Investment (₹ in Crore)
2007-08	6,656 (actual)
2008-09	8,167 (actual)
2009-10	10,617 (actual)
2010-11	11,900 (Estimate)
2011-12	17,700 (Estimate)
Total	≈ 55,000

- ❖ Provisional estimate more than ₹1,00,000 Crore for XII Plan.

FUND MOBILISATION – XI PLAN

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

* Includes ₹ 1966 crores of IPO proceeds & ₹ 2800 crores out of total FPO proceeds of ₹ 3721 crores

XI PLAN : PHYSICAL

Parameter	At the end of X Plan	Cumulative by end of XI Plan	As on 31.12. 2010
Transmission network length (in Ckm)	59,460	94,460	81,456
Transformation capacity (in MVA)	59,415	115,415	90,900

Evacuation of Power from Future Generation Projects

Long Term Open Access

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

Cluster of Concentrated Demand pockets

Cluster of Generation pockets

Work for developing these corridors has commence.

Regulatory approval from CERC for implementation of these corridors with generation addition is available.

Need to be developed in Phases matching with Commissioning of Generation Projects

EMERGING MARKET MECHANISM – OPEN ACCESS

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.

POWERGRID- A GLOBAL CONSULTANT

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 ± 800 kV, 6000 Megawatt HVDC Bi-pole line from North Eastern Region to Northern Region (Agra) has commenced.**
- ❖ **Development of 1200 kV 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

- **Remote Operation and control of Trans. Elements / Unmanned substations.**
- **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

- ❖ Rated consistently **“EXCELLENT”** against MOU since **1993-94** and recipient of prestigious **“MoU Excellence Award”** for nine years, i.e. 1998-99, 1999-2000, 2000-01, 2003-04, 2004-05, 2005-06, 2006-07, 2007-08 & 2008-09.
- ❖ Received **“National Awards for Meritorious Performance”** instituted by Gol, for 2005-06, 2006-07, 2007-08 and 2008-09.
- ❖ **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