A Presentation on NTPC Limited Mr. A.K. Singhal Director (Finance), NTPC at 3rd Analysts & Investors Meet

1st- 2nd August 2007

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Corporate vision and Core Values

Corporate Vision:

"A world class integrated power major, powering India's growth, with increasing global presence"

Core Values:

B-Business Ethics

C-Customer Focus

O-Organizational & Professional pride

M-Mutual Respect and Trust

I- Innovation & Speed

T-Total quality for Excellence

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About Us
Business opportunities
NTPC's business and strengths
Performance Highlights – Year and Q1-08
Challenges and Strategies

Evolution of NTPC

1975

1997

2004

2005

2007

NTPC was set up in 1975 with 100% ownership by the Government of India. In the last 30 years, NTPC has grown into the largest power utility in India Government of India granted NTPC status of "Navratna' being one of the nine jewels of India, enhancing the powers to the Board of Directors.

NTPC became a listed company with majority Government ownership of 89.5%. NTPC becomes third largest by Market Capitalisation of listed companies

Rechristened as

NTPC Limited in line with its changing business portfolio and vision to transform from a thermal power utility to an integrated power utility.

First step towards strategic diversification- the company decides to acquire 44.6% stake in TELK from Government of Kerala to manufacture and repair transformers etc.

Stakeholder Value Creation

Investments philosophy aimed at maximizing returns; adherence to best practices

Strong Management team, Professional and dedicated organization

Sound business concept & High standards of Corporate
Governance

NTPC- Today

Ownership

- Government owns 89.5%
- FIIs own 6.94 % and rest 3.56 % owned by domestic institutions & public

Size

- One of the four largest Indian companies with a market cap of more than Rs. 1300 billion +
- Has a net worth of Rs.485.9 billion +
- Owns total assets of Rs.807.6 billion +

Stature

- The largest thermal generator in India
- The fourth largest generating company in Asia
- Ranked 313 in FT 500 Global
- 494th Largest company in the world (FORBES ranking 2006)

NTPC group

5 Subsidiaries

- NTPC Electric Supply Company Ltd. (100%)

- NTPC Vidyut Vyapar Nigam Ltd. (100%)
- N TPC Hydro Ltd.(100%)
- Pipavav Power Development Company Ltd (100%)
- Vaishali Power Generating Company Ltd. (51%-74%)

8 Joint Ventures

- PTC India Ltd. (8%)
- Utility Powertech Ltd. (50%)
- NTPC SAIL Power Co. (Pvt.) Ltd. (50%)
- NTPC Alstom Power Services Pvt. Ltd. (50%)
- NTPC Tamilnadu Energy Co. Ltd. (50%)
- Ratnagiri Gas & Power Pvt. Ltd. (28.33%)
- Aravali Power Company Pvt. Ltd. (50%)
- NTPC-SCCL Global Ventures Private Ltd. (50%)

Figures in brackets indicate holding of NTPC

NTPC Group: Total Assets above Rs.841.3 Billion, Net -worth above Rs.487.1 Billion, Profit after tax above Rs.69 Billion.

Accomplishments & Accolades



◆ ASIAN POWER PLANT OF THE YEAR AWARD 2006 BY ASIAN POWER MAGAZINE TO FEROZE GANDHI UNCHAHAR TPS ON ITS ATTRIBUTES OF EFFICIENCY, ENVIRONMENT, OPERATIONAL CHARACTERISTICS & BUSINESS MANAGEMENT.



- → GOLDEN PEACOCK GLOBAL AWARD FOR CORPORATE SOCIAL RESPONSIBILITY 2007 BY WORLD COUNCIL FOR CORPORATE GOVERNANCE, LONDON, UK.
- → GOLDEN PEACOCK NATIONAL TRAINING AWARD 2006 FOR FOURTH YEAR IN SUCCESSION TO NTPC, PMI BY INSTITUTE OF DIRECTORS.
- → GOLDEN PEACOCK ENVIRONMENT MANAGEMENT AWARD 2006 TO NTPC CORPORATE ENVIRONMENT MANAGEMENT BY WORLD ENVIRONMENT FOUNDATION.



→ INTERNATIONAL PROJECT MANAGEMENT AWARD 2005 BY INTERNATIONAL PROJECT MANAGEMENT ASSOCIATION (IPMA) – THE ONLY ASIAN COMPANY TO GET THE AWARD



◆ SUSTAINABLITY AWARDS 2006:
 COMMENDATION CERTIFICATE FROM CII-ITC
 CENTRE FOR SUSTAINABLE DEVELOPMENT

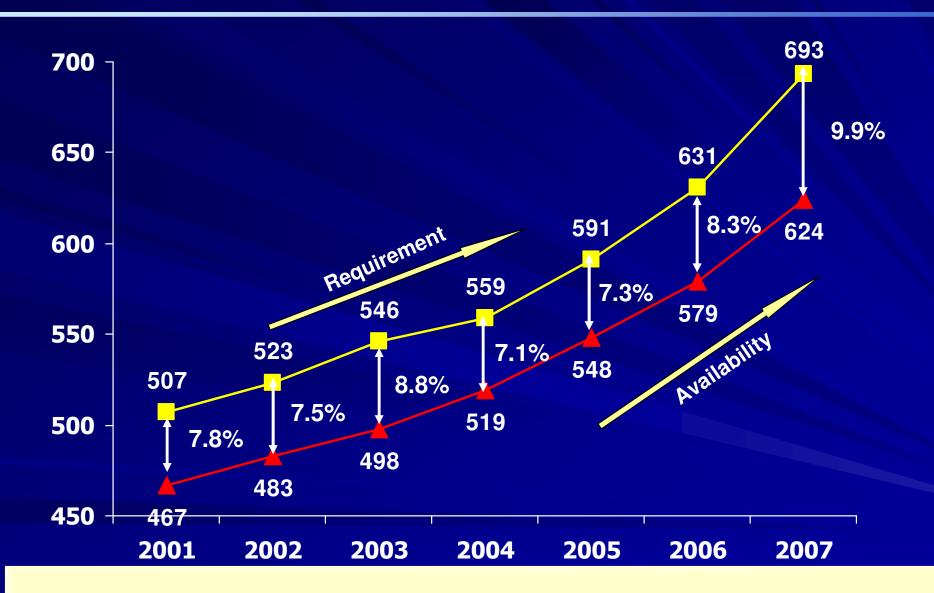
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Economy at an inflexion point

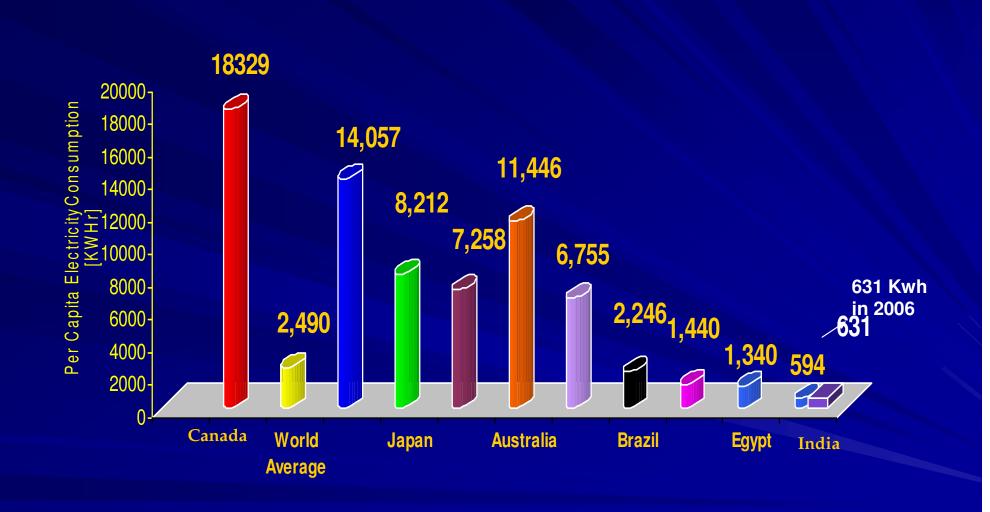
- **→** The GDP grew at 9.4% during fiscal 2007, average rate of growth over last 4 years is 8.6%.
- **→** The current growth is consumer-led and hence expected to take the economy to even higher growth path.
- → GDP growth target of 9% set by Govt. during XI Plan.
- **→** The growth in electricity has to be commensurate with growth in GDP.
- **→** Present energy deficit is 9.9% and peak deficit is at 13.5%.

Power Sector Overview



Supply Deficit Power Market – offers huge growth opportunities

Power Sector Overview – Per capita Consumption



- •Power demand in India poised to grow further
- •NEP aims at per capita availability of 1000 kwh by 2012

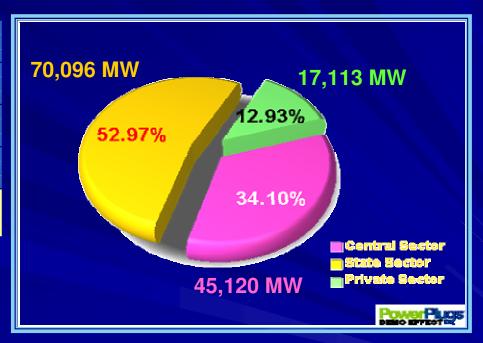
Existing Generating Capacity-March'07

Fuelwise break-up

Sector wise break-up

Thermal	86,015	65.0%
Hydro	34,654	26.2%
Nuclear	3,900	2.9%
Renewable	7760	5.9%
TOTAL	132, 329	100.0%

(Excluding captive capacity of 14363 MW connected to grid)



Total Generation fiscal 2007 : 659 BUs Total Generation Q1 fiscal 2008 : 176 BUs

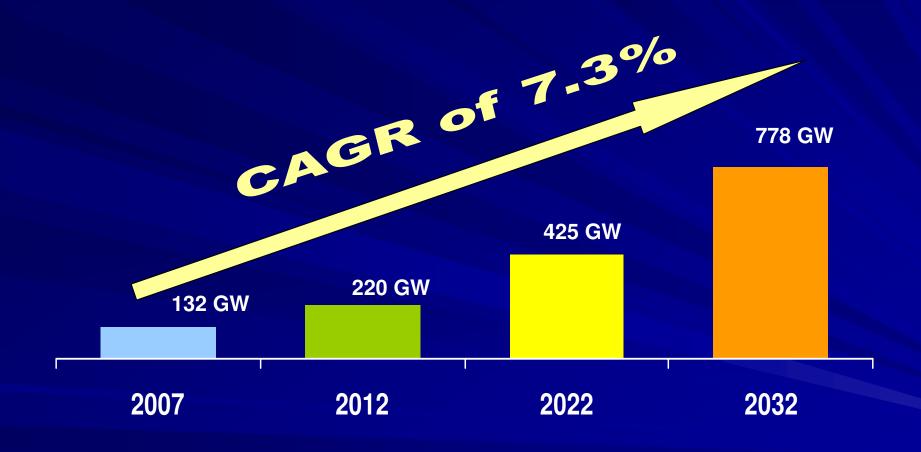
NTPC continues to contribute 29% in country's generation in Q1 of Fiscal 2008

XI plan target-2007-2012

Sector	Thermal		Total Thermal	Hydro	Nuclear	Total	
	Coal	Lignite	Gas	Titerman			
Central sector	24310	1000	1454	26800	9685	3380	39865
State Sector	23135	450	762	24347	3605	0	27952
Private Sector	5460	0	2037	7497	3263	0	10760
Total	52905	1450	4289	58644	16553	3380	78577

NTPC to contribute to 56.67% of central sector share by adding 22600 MW during XI plan

Projected Capacity



Source: Integrated Energy Policy GOI

Large Capacity addition required to meet the demand

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6	Growth strategies

Business strength-Spread across the country



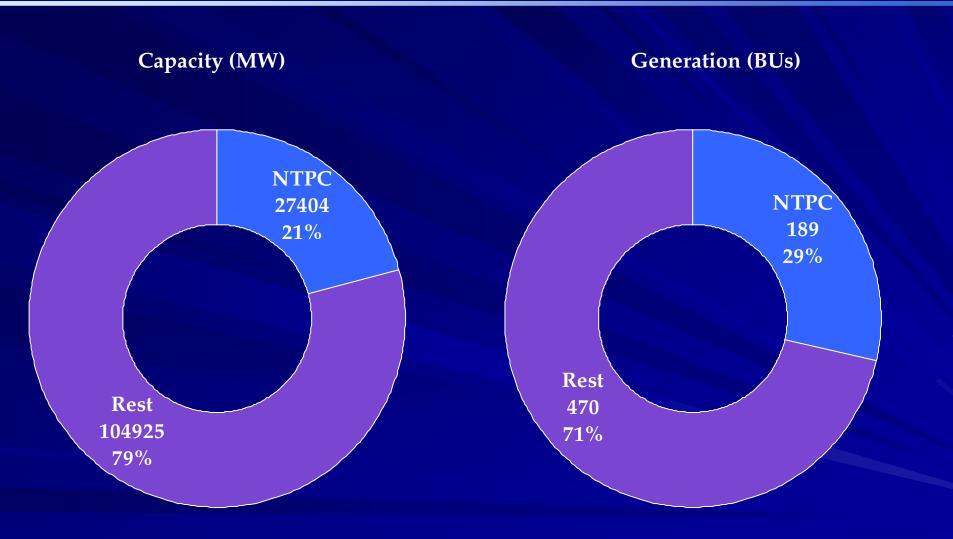
Region	No of plants	Capacity MW
NTPC Owned		
Coal	15	22895
Gas/Liquid fuel	7	3955
Total	22	26850
Owned by JVs		
Coal Gas	4	1054
Total	26	27904

Regional Spread of Generating Facilities

Region	Coal	Gas	Total
Northern	7035	2312	9347
Western	5860	1293	7153
Southern	3600	350	3950
Eastern	6400	-	6400
JVs	314	740	1054
Total	23209	4695	27904

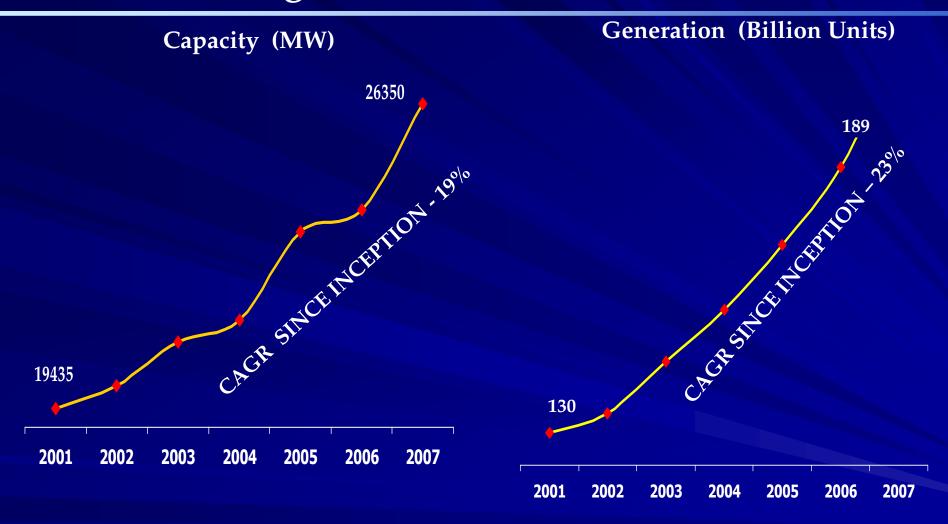
A national generator-supplier to major States-Diversified customer base

Business strengths- Dominant Market Share (as of March 31, 2007)



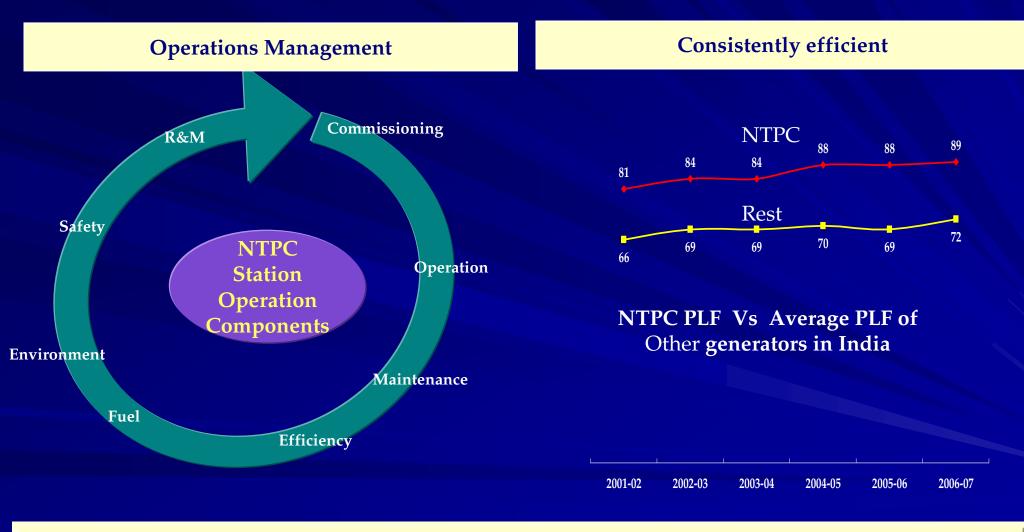
More than one-fourth of India's generation with one-fifth capacity
The next largest power utility owns 7.5% of market share in terms of capacity and 7.6% of share in terms of units generated

Business strength- Consistent Growth



- Capacity NTPC CAGR since inception 20% Vs All India 5.3%
- •Generation NTPC CAGR since inception 23.4% Vs All India 6.7%.

Business strength – Operational efficiency



Operational availability at 90.9% in fiscal '07 Recorded highest ever PLF of 89.4%

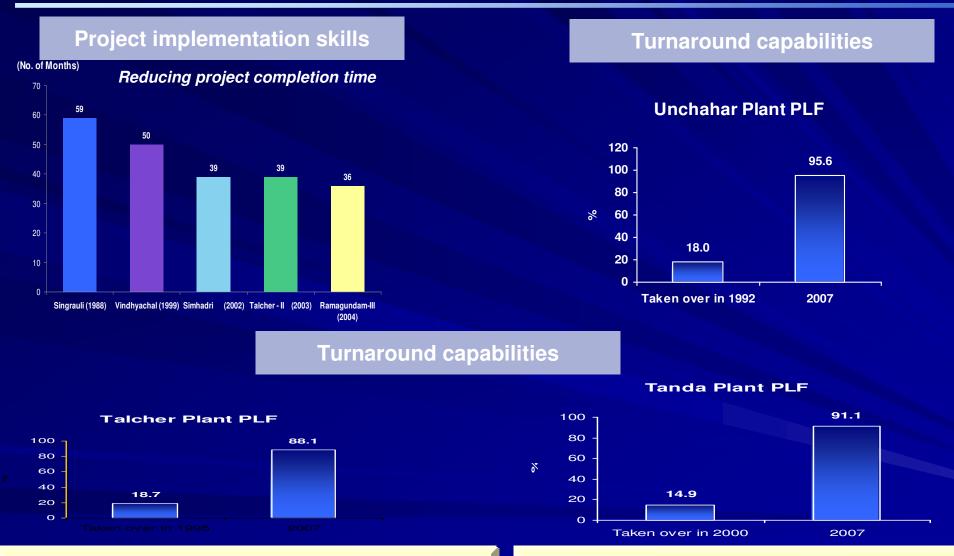
Business strength – Commercially attractive source of power

- Average selling price is Rs. 1.75 per unit in fiscal 2007
- Supply decisions based on commercial principles
 - Allocation of power to customers with ability to pay
 - Flexibility to reduce sale to defaulting Customers
- Energy sale assured through long term Power Purchase Agreements ("PPAs")
 - Off take secure with entire output being contracted
 - Strong payment security mechanism in place
- No constraints in evacuating power
 - Associated Transmission system for each project developed to match with project schedule
 - Development of national grid

Business strength – Commercially attractive source ... contd.

- **→** 100% realization for Four years in succession.
 - → Same trend continues in the first quarter of fiscal 08
- **→** Letters of Credits to the extent of 105% of average monthly billing established by all customers
- **→** Timely Servicing of Bonds under One-time-settlement Scheme
- **→** Incentive scheme for encouraging prompt payment continues
 - **→** Maximum rebate upto 2.25% allowed for prompt payments within a month.
 - → Customer Reward @ 0.75% payable half-yearly on the outstanding OTSS Bonds depending on payment performance.

Business strength -Proven Competencies & skills



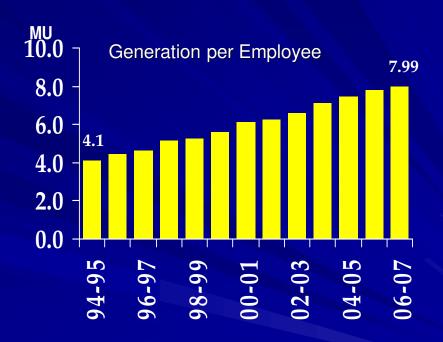
Bagging of IPMA International Project Management Award 2005 for Simhadri Project a testimony of project management abilities of the company

Repeated turnarounds of low performing plants acquired by NTPC and the revival of Ratnagiri power station demonstrate NTPC's strong technical skills and expert manpower pool

Business strength - Human Resources

- + 24,375 highly trained employees
- + Senior executives possess extensive experience of the industry
- + Executive Turnover Rate 1.19%
- + Planned interventions at various stages of career
- + Systematic training ensures 7 man days training per employee per year
- + Knowledge sharing & development through various HR initiative

Improving Productivity



Seventh Great Place to work for in India as per survey conducted by Grow Talent and Business World (for the year 2006)

Business strength – Leveraging NTPC's capabilities for growth of power sector

- → Under Partnership In Excellence (PIE), 2833 million units added during fiscal 2007. This amounts to capacity addition of 430 MW at 75% PLF.
- → Decentralised Distributed Generation (DDG) projects commissioned at six villages in UP, Rajasthan and Chattisgarh.
- → Associated in electrification of about 40000 villages in 6 states under Rajiv Gandhi Gramin Vidyutikaran Yojana – 194 villages charged, work in progress in over 7000 villages.

Business strength -Sound corporate governance practices

Management oversight through various committees of the Board

Audit Committee

Comprises of only
Independent Directors
for overseeing financial
reporting and
compliances

Committee on Management Controls

Review and monitoring of management control systems

Committee for Projects

Approvals for feasibility reports for new projects and investment decisions

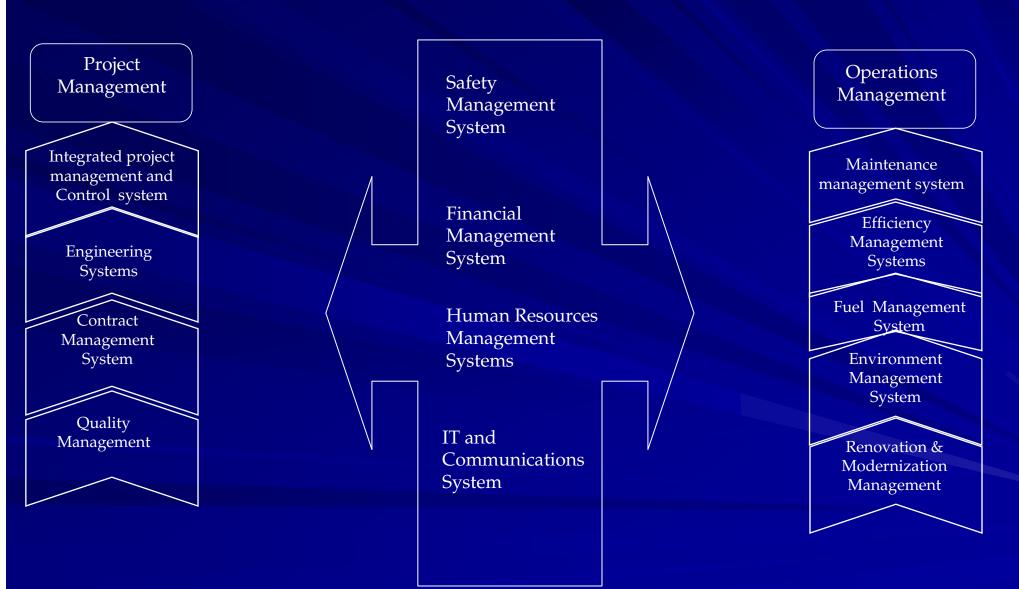
Committee For Contracts

Award of contracts of large values

Other committees of the Board

- Committee for allotment / post-allotment activities of Securities
- Shareholders / Grievances Committee
- Investment / Contribution Committee
 The company does not have a remuneration committee as the appointment, tenure and remuneration of Directors are decided by the Government of India

Business Strength – Systems based managerial practices



Business strength - Strong Credit Ratings

Standard & Poor's: BBB- (Stable outlook)

Fitch: BBB- (Stable outlook)

S&P

➤ "For NTPC the rating reflects the stand-alone credit profile of the company and its dominant market share in the electricity generation sector"

- ➤ "NTPC's rating reflects the dominant market share, diversified asset portfolio and strong financial profile of the company."
- > January 2007 & February 2006

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Performance Highlights – Fiscal 2007 & Q1-08

- 1 Capacity Growth
- 2 Physical Performance
- 3 Commercial Performance
- 4 Financial Performance
- 5 Others

Capacity Growth

Capacity added in the previous year -3155 MW

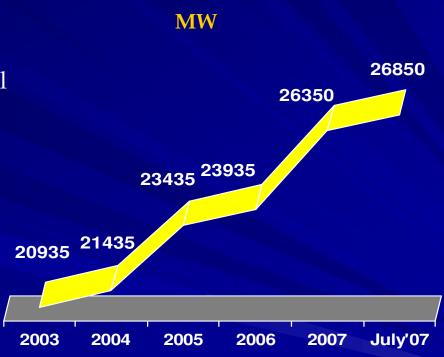
- > 705 MW Badarpur Thermal Station transferred to NTPC w.e.f. June 1, 2006
- > 1000 MW commissioned at Vindhyachal
- > 500 MW commissioned at Kahalgaon
- > 210 MW commissioned at Unchahar
- 740 MW capacity of Ratnagiri JV

Increase in capacities in Q1

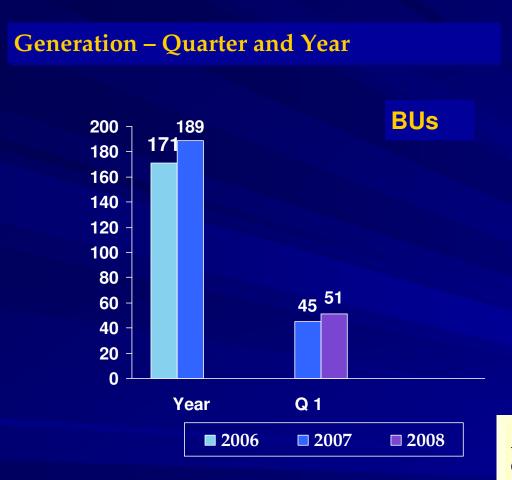
500 Mw commissioned at Sipat

Total capacity

- Owned 26,850 MW
- Joint ventures 1,054 MW



Physical Performance – Generation & Capacity utilization



PLF - Quarter and Year

	2007	2006
Coal Stations	89.43%	87.54%
Gas Stations	71.90%	65.81%
All India	76.80%	73.60%

	Q1-08	Q1-07
Coal Stations	94.00%	87.76%
Gas Stations	77.98%	72.03%

Availability @ 93.94% for thermal and 93.25% for gas in Q1 of fiscal 2008

- Growth of 10.41% in Gross Generation over fiscal 2006.
- •Growth of 13.45 % in Gross Generation in first Qtr./08 over corresponding Qtr. of fiscal 2007.

Financial Performance – For the Year 2006-07

Rs.Million

	Fiscal 2007	Fiscal 2006	% change
Total income	353,807	293,393	20.59%
Sale of Energy	325,344	266,564	22.05%
Other income	28,463	26,829	6.09%
Total expenditure	264,842	224,818	17.80%
Fuel	198,181	163,947	20.88%
Depreciation	20,754	20,477	1.35%
Interest & finance charges	18,594	17,632	5.46%
РВТ	89,074	66,087	34.78%
Tax	20,427	7,885	159.06%
PAT	68,647	58,202	17.95%
Adjusted PAT	64,146	53,374	20.18%

Financial Performance – Quarter

Rs. Million

- ★ The total income have grown by 19.03%
- ★ Sales have registered an increase of 19.48%
- → Profits have grown by 52.62%

			
	Q1-08	Q1-07	
			% change
Total income	96,878	81,390	19.03
Sale of Energy	89,382	74,808	19.48
Other income	7,496	6,582	13.89
Total expenditure	67,944	61,569	10.35
Fuel	53,230	45,670	16.55
Depreciation	4,914	4,755	3.34
PBT	28,934	19,821	45.98
Tax	5,235	4,293	21.94
PAT	23,699	15,528	52.62

Financial Performance – Quarter

Rs.Million

- ★ As in the past the company has disclosed certain adjustments which are included in the reported results
- → On a comparable basis the profits for the current quarter have grown by 15.21% over the same quarter of the previous year

	Q1-08	Q1-07	% change
Reported PAT	23699	15528	52.62 %
Adjustments			
•Previous year sales	-5097	-939	
•Exchange rate variations adjusted to interest	-3828	904	
•Prior period adjustments	-14	-175	
•Wage Revision/ Pension, add.	2888	-	
incentive			
•Total adjustments	-6051	-210	
Comparable PAT	17648	15,318	15.21 %

Other key highlights (April to July)

- ➤ A joint venture Agreement signed on May 11, 2007 with SCCL for creation of a JVC to undertake various activities in coal and power sector including acquisition of coal/lignite blocks etc.
- ➤ The object clause of MOA was changed May15,2007 to pave way for undertaking nuclear power generation in future.
- ➤ On June 23, 2007, as a first step towards strategic diversificationthe company decided to acquire 44.6% stake in TELK from Government of Kerala to manufacture, market and service the power transformers, current voltage transformers etc.
- ➤ The main plant award placed on July 14,2007 in respect of Aravali Project of 3*500 MW undertaken under Joint Venture company. 36

Other key highlights (April to July)...contd.

- ➤ A 500 MW unit of Vindhyachal stage-III entered commercial generation w.e.f. July 15, 2007
- ➤ MOU signed with ADB on July 23 to set up a Joint Venture to establish and hold a portfolio of about 500 MW of renewable generation.
- ➤ MOU signed with Rashtriya Ispat Nigam Ltd. on July 27, to form a joint venture company for setting-up Blast Furnace gas based gas turbine combined cycle power plant of about 150 MW capacity at Vishakapatnam.

Other key highlights contd.

+ Coal Supply

- During the quarter 29.49million tonnes of coal was received as compared to 26.63 million tonnes in the corresponding quarter in the previous year
- Coal stock levels at power stations were comfortable

+ Gas Supply

- During the quarter Gas stations received 14.83
 MMSCMD of gas in comparison to 12.31 MMSCMD received in the same quarter in the previous year
- Purchased 5.18 MMSCMD of regassified LNG from the spot market during first Quarter
- **→** ERP is under implementation —has gone live in two projects

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NTPC-evolving as an integrated Power major

- Hydel Power
 ~9,000 MW by 2017
- Nuclear Power 2000 MW by 2017
- Non-conventional 1000 MW by 2017

- Globalisation
- Setting up of power plants abroad
- International Consultancy

- Power trading
- Power
 Distribution

LATERAL INTEGRATION

BACKWARD INTEGRATION

FORWARD INTEGRATION

RELATED DIVERSIFICATION

- Seven coal mine blocks (~47 MTPA cap.) allocated
- One oil/gas block allocated.
- NTPC requirement for gas ~ 5 MTPA by 2010

- Sectoral Support
 - •PIE
 - APDRP
 - Rural Electrification
 - Training under DRUM

- R&M of power stations
- JV for Captive Power

Global Initiatives

- → MoU signed with the Government of Sri Lanka and Ceylon Electricity Board for setting up a 500 MW coal based thermal power plant in Sri Lanka
- → MoU signed with Kyushu Electric Power Co. Inc., Japan for establishing an alliance for exchange of information and experts from different areas of the business
- → MoU Signed with the Govt. of Nigeria for setting up power plants against allocation of LNG on long term basis.
- ★ Exploring business opportunities in the Middle East region
- Exploring Coal Mining ownership/long term buy back opportunities in Indonesia, Australia and Africa including South Africa.

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Basis for Strategies – Key Challenges

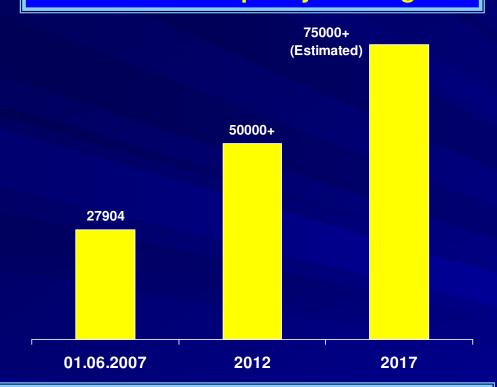
- 1. Rapid capacity expansion
- 2. Fuel security
- 3. Regulatory Risk
- 4. Financial Resources
- 5. Technological Obsolescence
- 6. Competition
- 7. Health of Customers
- 8. Pollution
- 9. CSR and Resettlement and Rehabilitation

The company has formulated its plans and strategies on the basis of -

- ✓ opportunities in the sector,
- ✓ company's strengths,
- √ challenges

Strategy – Rapid capacity expansion

Total Installed capacity envisaged



Estimated Market Share by Capacity 23% by 2012 and 25% by 2017

Multi-pronged Growth Strategy

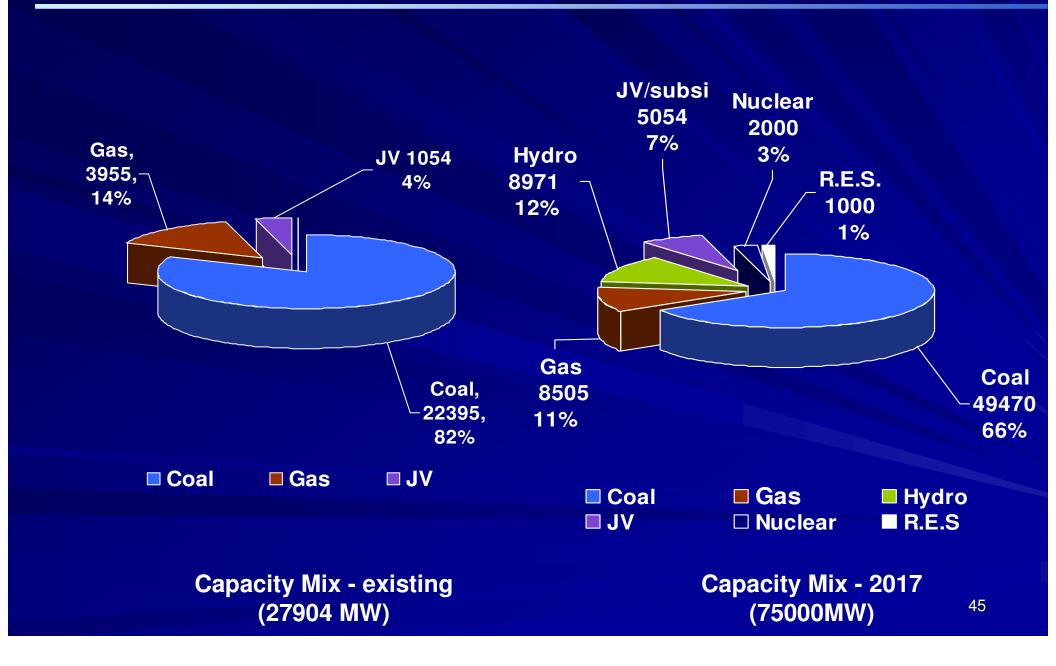
- Multi pronged approach to capacity addition
 - Greenfield projects
 - Brownfield expansion
 - Joint ventures / Acquisitions
- Diversification in related business areas
 - Hydro projects
 - Coal Mining
 - Power trading
 - Oil / gas exploration
 - LNG value chain
 - Renewable and Non-conventional
 - Nuclear

Projects under construction	13,360 MW
Projects under tendering	8,740 MW

NTPC by 2017 - A Snapshot

	Present	2011-12	2016-17
Power Generation	27,904	50,004	~ 75,000
Coal Mining (Production)		15 MTPA	~ 47 MTPA
Trading (Units Traded)	2.66 BU	10 BU	25 BU
Distribution (Capacity)		1,000 MW	2,000 MW

NTPC by 2017 - A Snapshot...contd.



Fuel security Strategy –Backward integration & diversification

Strategies for coal sourcing

- Fuel tie up for required quantities with Coal PSUs more than 80% of NTPC's coal based capacity located at /near pit head.
- Import as and when required
- Develop coal mines 7 coal mines including 2 in JV
- Coal production to commence from 1st mine by 2008

Strategies for gas sourcing

- Tie up with GAIL, PMT under Administered price mechanism
- Purchase for short term / from spot market
- Exploration activity progressing at NELP V
- Participate in gas value chain to secure long term supplies

Diversification into hydro

- 1,920 MW under implementation
- 5,000 MW Agreement signed for implementation
- **Exploring nuclear and renewable power options**

Status of coal mine development

- → 7 coal blocks allotted of which two would be developed in joint venture with Coal India Limited
- ★ Estimated mineable reserves of 2900 MT
- ◆ Estimated total production capacity of 47 MTPA by the year 2017
- → NTPC Board has approved an advance expenditure of Rs. 5430 million for development of these mines

Status on Pakhri Barwadih mine

- → Mining plan approved by Ministry of coal.
- Requests for qualification received for appointment of Mine Developer cum Operator are being evaluated
- + Initial production to begin by the year 2008

Key Challenge – Regulatory Risk

- ★Regulator is expected to ensure reasonability of returns and continue to incentivise efficient operations
- ★Tariff Policy is indicative of continuing with a regime of reasonable return for all the utilities in the sector
- **→**Setting up Merchant Plants

Financial Resources

Strategy - Prudent Financial policies

Capital structure

- + Diversified sources of funds
- + Prudent financial profile Debt to Net Worth of 0.5:1

Liquidity

- + Access to large credit lines from financial institutions, Banks, Multilateral and Bilateral agencies
- → Net cash flow of Rs.81 bln generated from operating activities in FY 2006-07
- → Leveraging borrowing with a debt-to-equity ratio of 70:30

Dividend policy

- → Highest ever dividend for fiscal 2007 @ 32% including Interim dividend @ 24%.
- → NTPC will continue to balance dividend pay-out and growth to take advantage of country's deficit power position

Technological obsolescence <u>Strategy - Technology Initiatives along with R&D</u>

- + Super critical technology and 765 KV transmission are some of the technologies adopted.
- + The company sets aside upto 0.5% of the profits for R&D
- + Energy Technologies Centre is working in both fundamental and applied fields and has a well-defined mandate to develop various technologies which will enhance plant reliability, efficiency etc.
- + Introduction of unit size of 800 MW
- + Development of Integrated Coal Gassification Combined Cycle (IGCC) technology suitable to Indian coal through its collaborative effort with USAID
- + Renovation and moderation of old existing units to be taken up for capacity enhancement, life extension and improvement in availability, reliability and efficiency.

MOU signed with Bhabha Atomic Research Centre for development of "Automated Boiler Tube Inspection system in coal based thermal power plants

Key Challenge - Pollution Strategy - Sound environment management

Issues

- □ Nitrogen Oxide (NOx) and Sulphuric Oxide (SO2) emissions
- □ CO2 emissions
- ☐ Emissions of Suspended Particulate Matter (SPM)
- ☐ Ash Management
- ☐ Effluent Management

Initiatives

- ✓ All stations ISO 14001 certified
- ✓ Environment Impact Assessment studies before project is taken up
- ✓ Design criteria for boilers ensures SPM emissions below norms
- ✓ Collaboration with USAID to improve efficiencies to reduce CO2 emissions
- ✓ Technology innovation by introducing Super-Critical Technology and IGCC plant

Initiatives

- ✓ Clean Development Mechanism initiatives to ensure future reductions in emissions
- ✓ Setting up of Integrated effluent treatment plants, Ash water recycling system and others initiatives to reduce effluent discharge
- ✓ Ash mound formation for the first time in Asia in NTPC's Dadri Plant
- **✓** Tree plantation
- ✓ Increased Ash utilization through various usages

Fulfillment of CSR and R&R objectives Strategy – Well laid down CSR and R&R Policies

- **→**NTPC Foundation formed to address Social issues at national level
- **→** NTPC has framed Corporate Social Responsibility Guidelines committing up to 0.5% of net profit annually for Community Welfare Measures on perennial basis
- **→** The welfare of project affected persons and the local population around NTPC projects are taken care of through well drawn Rehabilitation and Resettlement policies
- **→** The company has also taken up distributed generation for remote rural areas

Power Producer of International Repute

The largest Indian power utility, NTPC has a vision to be one of the world's largest and best power utilities, powering India's growth

Thank you

www.ntpc.co.in