

**National Thermal Power Corporation Limited**

**Welcomes You**

**to**

**1<sup>st</sup> Analysts & Investors Meet**

**22<sup>nd</sup> August 2005**  
**Mumbai**

**A Presentation**

**on**

**National Thermal Power Corporation Limited**

**by**

**Mr. A.K. Singhal**

**Director (Finance), NTPC**

**at**

**1<sup>st</sup> Analyst & Investor Meet**

**22<sup>nd</sup> August 2005**

# Contents

- 1 NTPC's Business and Strengths
- 2 Performance Highlights
- 3 Key Strategies
- 4 Indian Power Sector
- 5 Key Challenges

# NTPC's Business and Strengths

## Nation wide Presence



Owns multi fuel and multi location plants

Possesses comprehensive In house capabilities in building and operating power plants

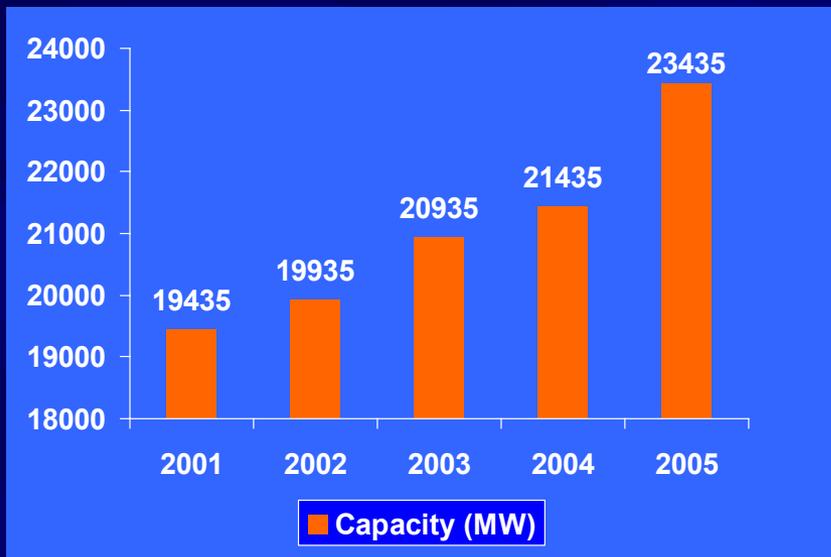
	No of plants	Capacity (MW) ( March 2005)
<b>NTPC Owned</b>		
- Coal	13	19,480
- Gas / Liquid Fuel	7	3,955
<b>Total</b>	<b>20</b>	<b>23,435</b>
<b>Owned by Joint Ventures</b>		
- Coal	3	314
<b>Grand Total</b>	<b>23</b>	<b>23,749</b>

- In addition, NTPC also manages Badarpur Thermal Power Station (705 MW ) of GOI in Delhi

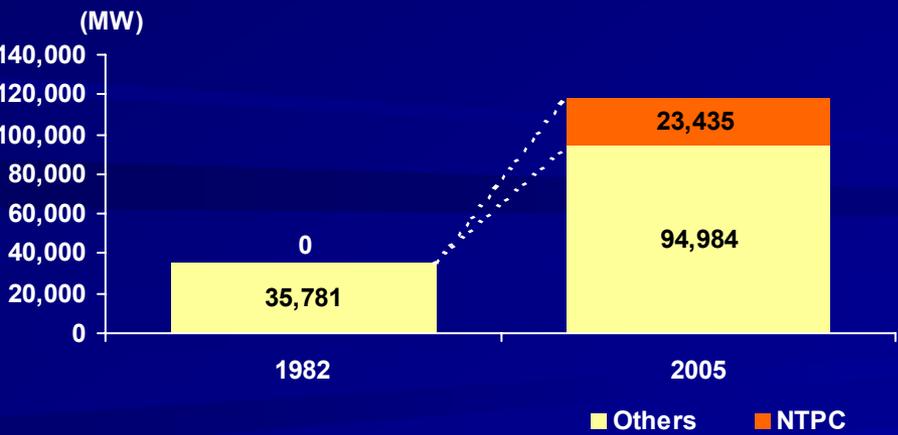
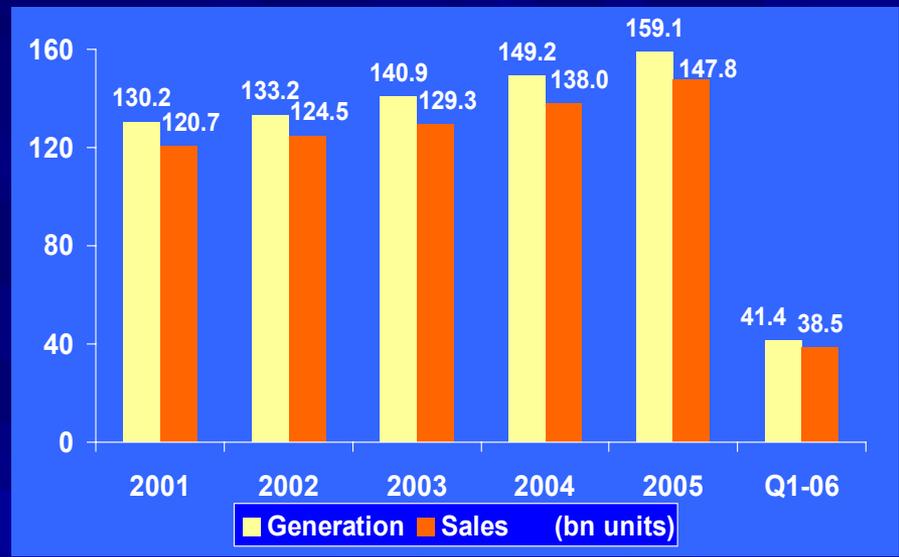
**NTPC is India's premier national generating company**

# NTPC's Business and Strengths

## Growth in Capacity



## Growth in Generation & Sales



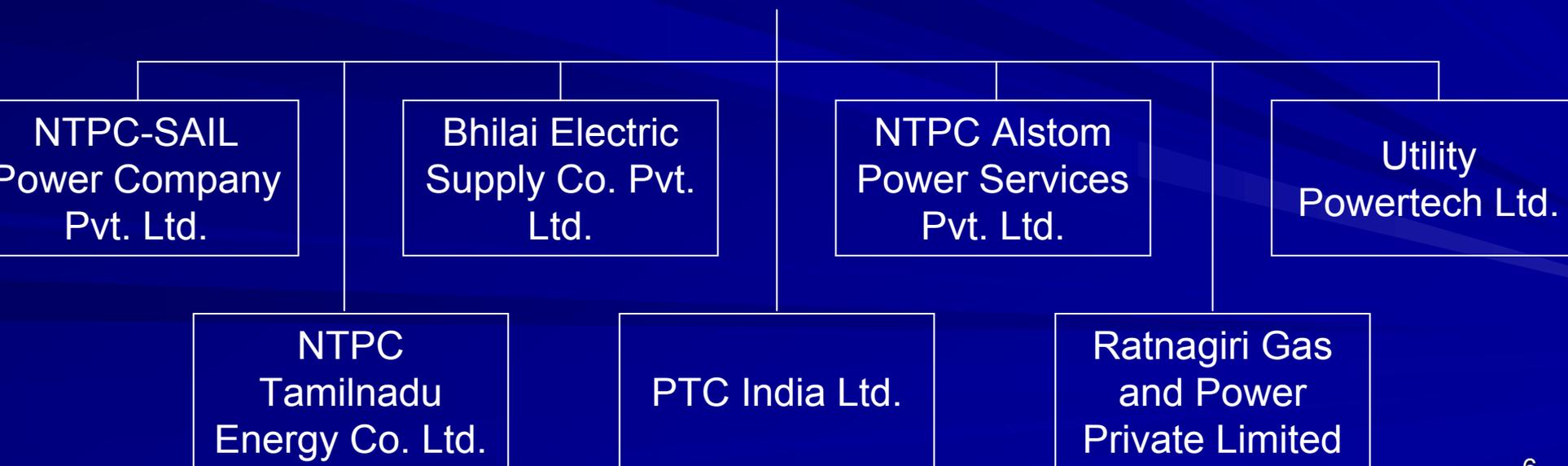
NTPC in the last 23 years has added over 28% of generation capacity of the country

# NTPC Group

## Subsidiaries



## Joint Ventures



# AWARDS & ACCREDITATIONS

- Golden Peacock Global Award for Excellence in Corporate Governance 2005
- ISTD FICCI Award for excellence in HR Practices
- Greentech Safety Award 2004-05
- National Award for excellence in consultancy services.
- CNBC TV- 18- Hewitt ranked NTPC “Third best employer in India”
- Performance Excellence Award for 2003-04

# Key Competitive Strengths

- Unmatched competitive position
- High off take security
- Proven track record in project implementation
- Proximity to fuel sources
- High operating efficiency
- Largest pool of power engineering talent in India
- Strong financial position

# Strong Government Support

- Navratna status has given Autonomy in making investment decisions
- Facilitated Tripartite Agreements for One time settlement of outstanding dues and Future payment security
- Supported new initiatives
  - Coal Mining
  - Participation in LNG Value Chain
  - Entry into power trading, distribution and hydro power generation
- Assigned NTPC the consultant role to modernize and improvise several plants across the country
- Chosen NTPC to disseminate technologies to other players in the sector

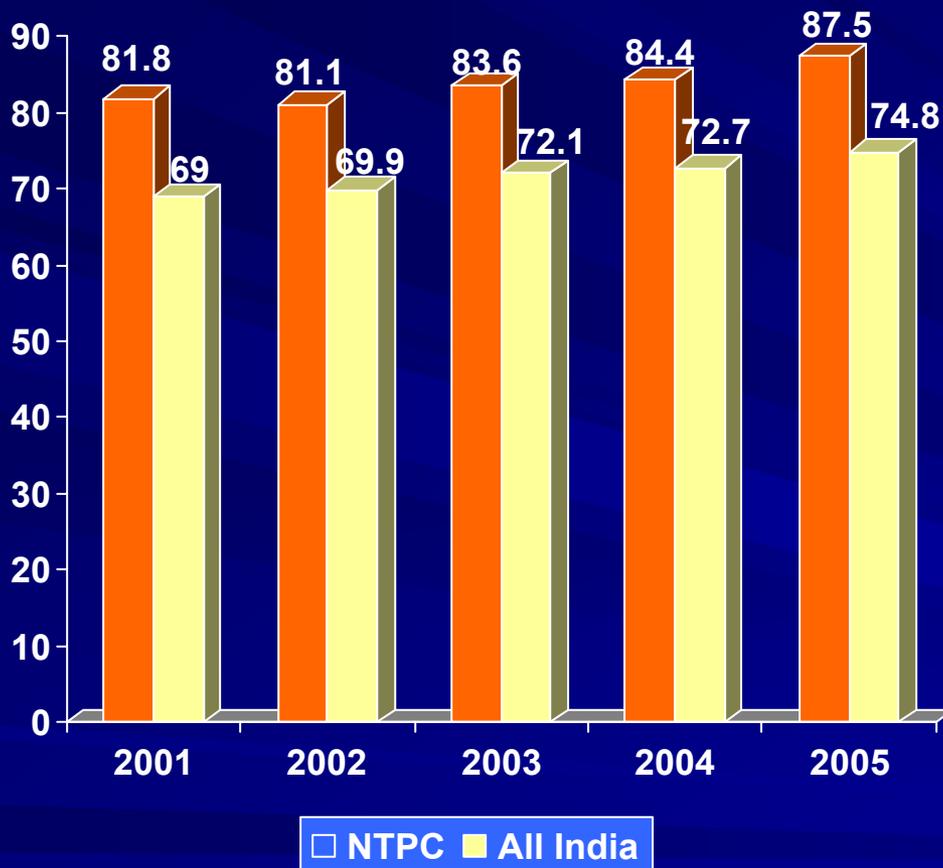
# Contents

- 1 NTPC's business and strengths
- 2 Performance Highlights
- 3 Key Strategies
- 4 Indian Power Sector
- 5 Key Challenges

# Performance Highlights

- Physical Performance
- Financial Performance
- Commercial Performance
- Capacity Growth
- Performance of Subsidiaries and JVs

# Physical Performance



- Generation of 159.11 bln units in 2004-05 as against 149.16 bln units in 2003-04
- Highest ever PLF of 87.5% in 2004-05
- High operational availability of 91.2%
- 1<sup>st</sup> Qtr 2005-06 PLF was 87.31% (coal) and 68.06% (gas) in comparison to 1<sup>st</sup> Qtr 2004-05 PLF of 87.13% (coal) and 65.51% (gas)

**Improvement in Asset Utilisation**

# Financial Performance - Profit & Loss Statements

Rs. Mln.

	<b>Fiscal</b>		<b>1<sup>st</sup> Quarter Ending June</b>	
	2004	2005	2004	2005
Total income	259,642	255,460	57,296	66,095
Sales	188,684	225,650	51,913	60,567
Other income	70,958	29,810	5,383	5,528
Total expenditure	200,745	194,678	46,188	52,371
Fuel	122,150	137,235	31,883	38,240
Depreciation	20,232	19,584	4,785	4,873
Interest & finance charges	33,697	16,955	4,511	4,094
PBT	58,897	60,782	11,108	13,724
PAT	52,608	58,070	10,541	13,087

# Financial Performance .. contd

## Balance Sheets

Rs. Mln.

	As on	
	31.03.2004	31.03.2005
Gross fixed assets	400,281	431,062
Net block	212,545	223,148
Investments	173,380	207,977
Current assets, loans and advances	135,468	129,073
Liabilities and provisions	240,845	241,720
Secured loans	45,844	44,407
Unsecured loans	108,684	126,471
Net worth	355,501	417,763
Equity share capital	78,125	82,455
Reserves and surplus	277,376	335,308

# Dividend & Growth

**Dividend (Rs.Mln)**



**Highest ever dividend for fiscal 2005 @ 24%, considering final dividend recommended by the Board of Directors of Rs. 9895 Million**

**The company would continue to balance growth and dividend pay-out to take advantage of country's deficit power position**

# Financial Position

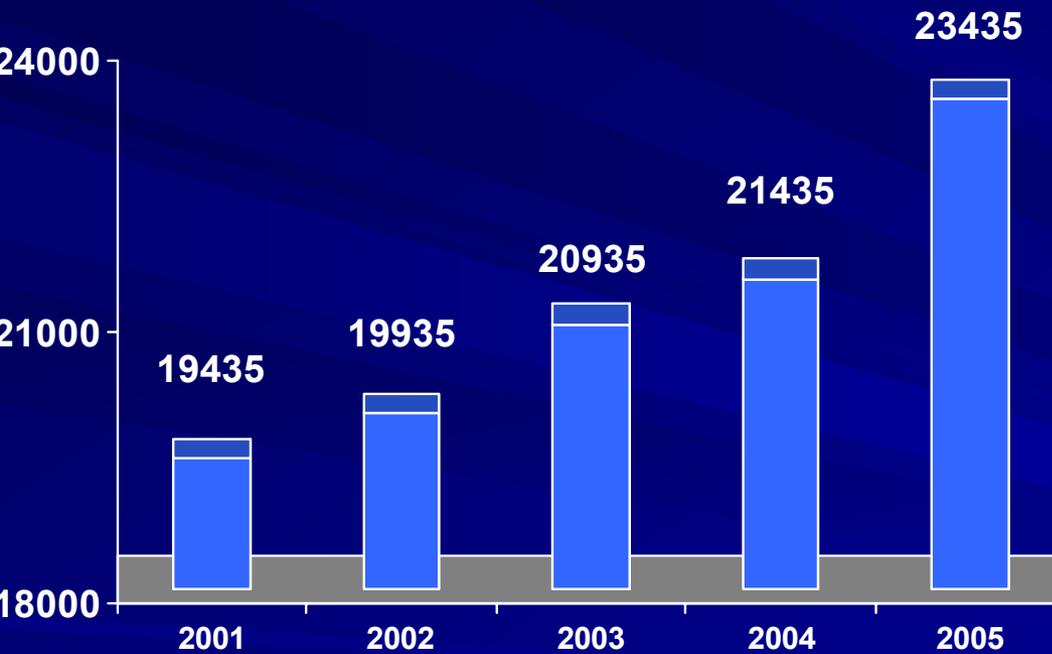
- Debt Equity Ratio of 0.41:1 as on 31.03.2005
- Capacity Expansion Plan has captured the leveraging advantage
  - Net cash flow of INR 50.47 bln generated from operating activities in FY 2004-05
  - Leveraging Borrowing with a Debt Equity ratio of 70 : 30
  - Domestic Bonds Rated
    - AAA by CRISIL
    - LAAA by ICRA
  - Foreign Currency Rating at par with Sovereign Rating
    - *BB with positive outlook by Standard & Poor's*
    - *BB+ with stable outlook by Fitch Ratings*

# Commercial Performance

- 100% realization in the FY 2004-05 of the amounts billed to the customers
  - *Same trend continues in the first quarter of 2005-06*
- 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

# Capacity Growth

Capacity (MW)



## Capacities Added Fiscal' 05

Talcher	500 MW
Talcher	500 MW
Ramagundam	500 MW
Rihand	500 MW

## New Starts

Sipat I	1980 MW
Barh	1980 MW
Bhilai ( JV )	500 MW

## Under Construction

**9470 MW \***

*\* Including New Starts*

# Human Resources- The Performer

The Best Employer in India for the year 2004 ranking 3<sup>rd</sup> for the second consecutive year (survey by Hewitt's Associates and CNBC TV 18)

Third Great Place to work for in India for the year 2004 in a survey conducted by Grow Talent and Business World

23,385 highly trained employees of which 21,420 are engaged in NTPC owned project

Senior executives possess extensive experience of the industry

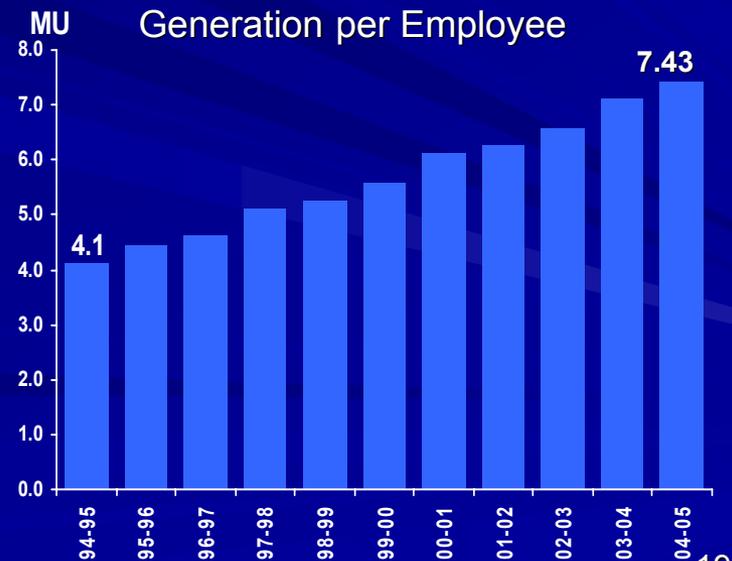
Executive Turnover Rate 0.44%

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



# Our Subsidiaries

1. **NTPC Vidyut Vyapar Nigam (NVVN)** , a wholly owned subsidiary has been set up with an objective of trading in power, to effectively use the installed capacity and reduction in the cost of power . NTPC has invested Rs. 200 million in the equity share capital of the company .

The company traded in electricity and sold 2,616 MUs of power in fiscal 2005 as against 962 MUs in the previous fiscal, registering a growth of 172 %

Particulars	( Rs. Mln)	
	2004-05	2003-04
Gross Income	5992	2291
Profit After tax	57	21
NTPC's Investment	200	200
Dividend	20	6

2. **NTPC Hydro Ltd** a wholly owned subsidiary has been formed, with objective to develop small and medium hydro electric power projects up to 250 MW. NTPC has invested Rs. 48 million in the equity share capital of the company . The company proposes to take-up Lata Tapovan HEPP (162 MW) in Uttaranchal ( Implementation agreement under discussion ) and Rammanohar HEPP Stage- II ( 90 MW ) in West Bengal (Implementation agreement signed )

# Our Subsidiaries

3. ***NTPC Electric Supply Company Limited (NESCL)*** , a wholly owned subsidiary has been set up for taking up electricity distribution business as a sequel to reforms initiated in the power sector and company is looking at opportunities to take up distribution circles.

The company has taken up

- “Advisor-cum-consultant” work under APDRP schemes of Ministry of Power
- Facilitating Project Monitoring ,quality assurance and Inspection services to MPSEB
- Execution of rural electrification in one block of Midnapur district in West Bengal.

4. **Pipavav Power Development Company**, a wholly owned subsidiary was promoted for acquisition of land for Pipavav Mega Power Project (1000 MW) and infrastructure for setting up power plant in Gujarat . FR of the said project is under preparation

# Our Joint Ventures

1. **NTPC-SAIL Power Supply Company Ltd** has been formed as a joint venture with SAIL with 50% stake, owning and operating 2 power projects of 120 MW each.

Particulars	(Rs. Mln)	
	2004-05	2003-04
Gross Income	1322	1550
Profit After tax	233	240
NTPC's Investment	587	587
Dividend	160	160

2. **Bhilai Electric Supply Company Ltd** has been formed as a joint venture with SAIL with 50% stake, owning and operating a 74 MW project at Bhilai

Particulars	(Rs. Mln)	
	2004-05	2003-04
Gross Income	607	610
Profit after Tax	61	66
NTPC's Investment	566	166
Dividend	20	20

**Bhilai Electric Supply Company Ltd has commenced expansion of 2x 250 MW**

# Our Joint Ventures

(Rs. Mn)

**3. NTPC-Alstom Power Services Limited in partnership with ALSTOM with 50% stake has been promoted to undertake R&M jobs of under performing stations**

Particulars	2004-05	2003-04
Gross Income	1021	1078
Profit After tax	21	23
NTPC's Investment	30	30
Dividend	6	3

**4. Utility Powertech Ltd has been formed as a joint venture with Reliance Energy with 50% stake, to undertake construction, erection & supervision jobs**

Particulars	2004-05	2003-04
Gross Income	1124	867
Profit After tax	57	34
NTPC's Investment	10	10
Dividend	30	20

# Our Joint Ventures

5. **NTPC Tamilnadu Energy Company Ltd has been formed as a joint venture with Tamil Nadu Electricity Board with 50% stake, to construct and operate a plant of 1000 MW in the state**
6. **PTC India Limited was promoted with 8% stake each from NTPC, PGCIL, PFC and NHPC for trading of power and purchase of power from identified IPPs**
7. **In line with decision taken by the Government of India to restart Dabhol Power Project, Special Purpose Vehicle “Ratnagiri Gas and Power Pvt. Ltd.” has been incorporated for taking over the assets of Dabhol Power Project**

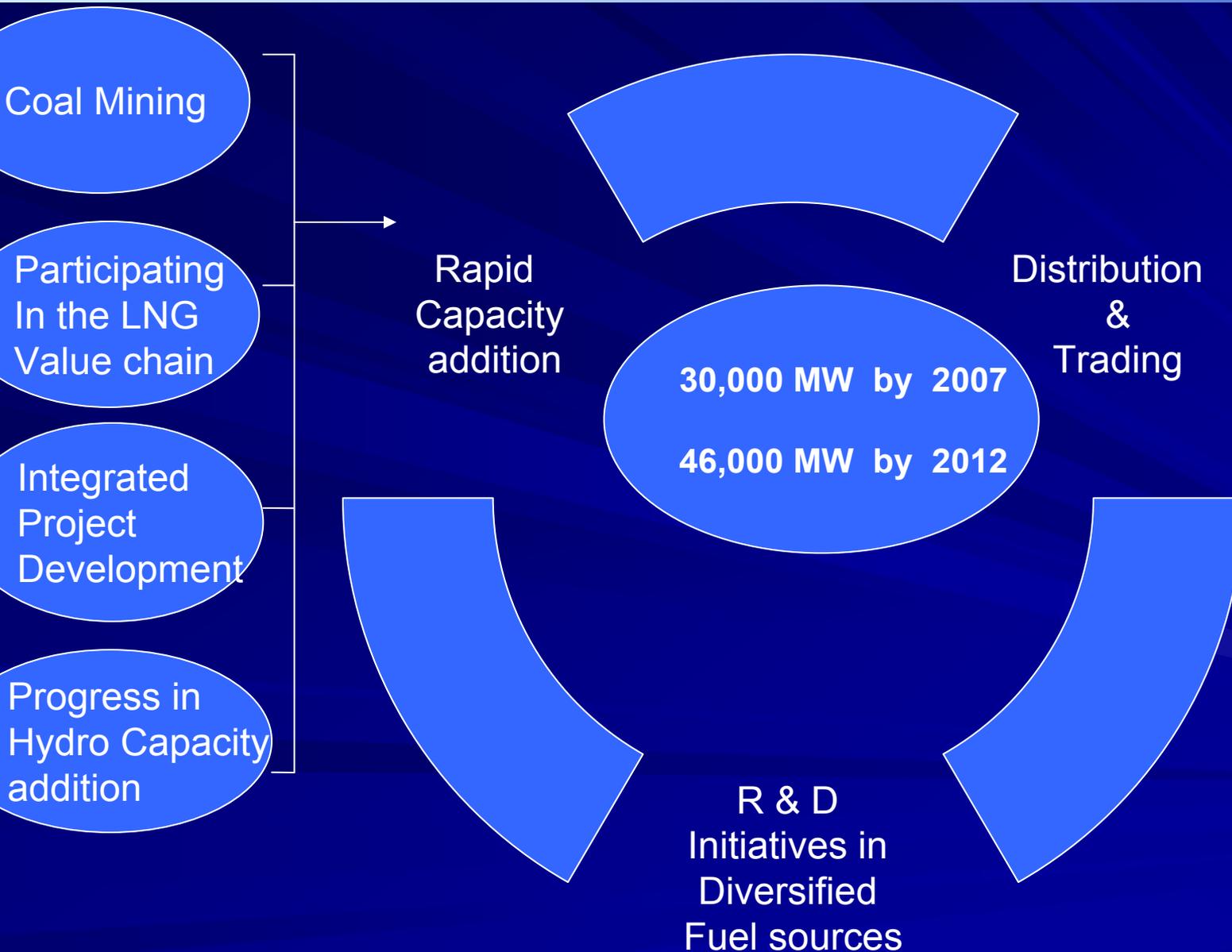
# Contents

- 1 NTPC's business and strengths
- 2 Performance Highlights
- 3 Key Strategies
- 4 Indian Power Sector
- 5 Key Challenges

# Key Strategies

- Maintain sector leadership position through rapid capacity expansion
- Further enhance fuel security
- Exploit new business opportunities
- Other Initiatives

# Strategy to Maintain Leadership Position



# Rapid Capacity Addition Program

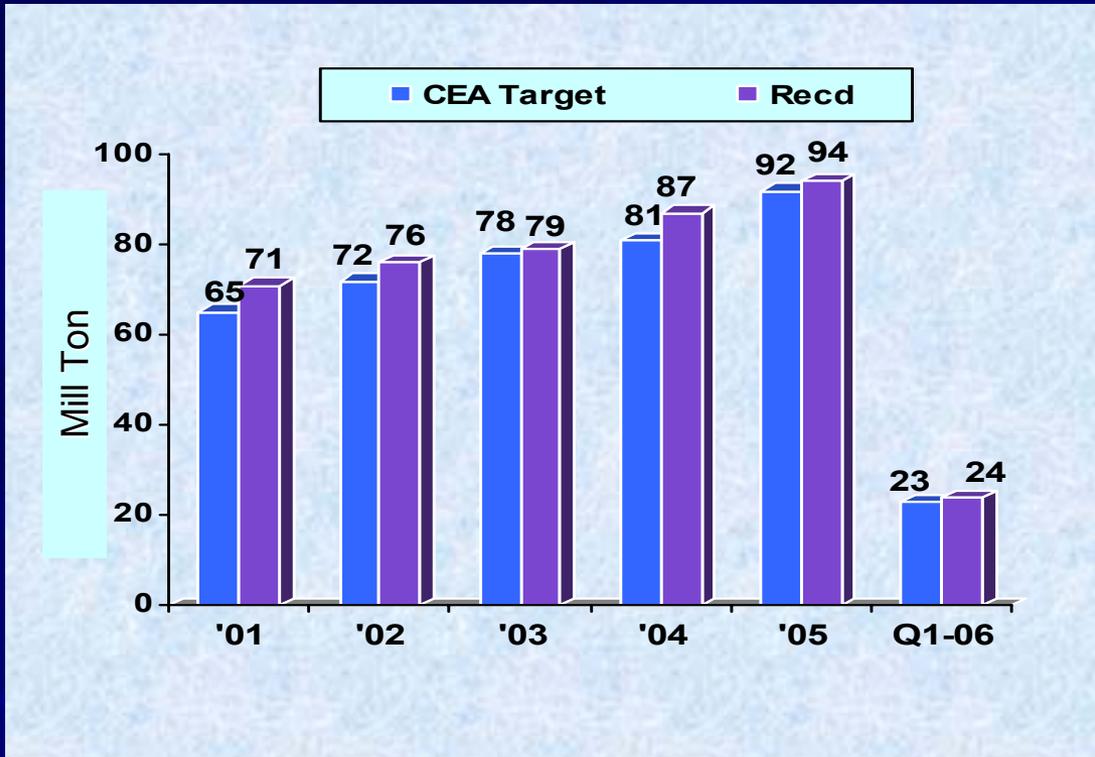
X Plan	
Plan	<u>9160 MW</u>
Added	3500 MW
Under Construction	4210MW
Under Evaluation*	<u>1450 MW</u>
Total	<u>9160 MW</u>

XI Plan	
Present Plan	<u>17000 MW</u>
Under Constn	5260 MW
Under Evaluation*	1150 MW
Other Projects	<u>10590 MW</u>
Total	<u>17000 MW</u>
Earlier Plan	11558 MW

\*Kawas II & Gandhar II – 1300 MW each

# Further Enhance Fuel Security

## Coal Availability – Current Scenario



- Supplies are enough to generate as per targets set by CEA,
- Additional requirements are met through import

**PLF of 87.5% in fiscal 05 as against 84.4% in last fiscal**

# Further Enhance Fuel Security

## Strategies For Coal

### ■ Short Term Measures

- Import of Coal to meet shortages as an immediate measure
  - *Import of 2.1 MT through MMTC, supplies commenced*
  - *Import of 1.9 MT through STC being tied-up*
- The overall impact on fuel cost is insignificant and the same is pass-through

### ■ Medium Term Measures

- NTPC is working on Coal Block Pakri Barwadih
- Negotiation with coal companies for enhancing supplies
- Coordination between Ministry of Power & Ministry of Coal for expeditious clearance of coal mining project

# Further Enhance Fuel Security

- Long Term Measures
  - NTPC has initiated advance actions to enter into coal mining and applied for additional 15 mining blocks
  - Ministry of power has recommended allocation of 4 blocks on priority basis to NTPC for development of integrated projects
  - Coal extraction from Linked Mines are also expedited

# Further Enhance Fuel Security

## Strategies For Gas

Historically Gas has been in short supply in India, NTPC's gas stations have been operating at Low PLF

### ■ Short Term Measures

- To augment existing supplies additional gas from Panna-Mukta-Tapti gas fields have been tied up
- As a result gas supplies of 12.5 MMCMD tied up as against earlier 9.1 MMCMD
- Continue negotiation with existing supplier for augmentation at reasonable price

PLF of gas stations 68.06% in (Q1-06) against 65.51% in (Q1-05)

# Further Enhance Fuel Security

## ■ Long Term Measures

- Acquiring acreage in domestic gas fields – NTPC has participated in bid process for blocks on offer under NELP- V
- Participation in various elements of LNG value chain including
  - *Gas Exploration and production*
  - *Participation in Gas Liquefaction and regassification terminal*
  - *Participation in LNG shipping*

**Agreement for supply of gas for Kawas II & Gandhar II to be signed shortly**

# Further Enhance Fuel Security - Fuel Mix

- Diversifying fuel mix by setting up hydro-power plants – both big and small

## Projects Under Development

Koldam Hydro	800 MW
Tapovan –Vishnugarh	520 MW
Loharinag Pala	600 MW

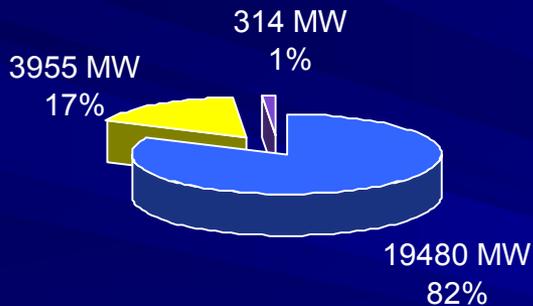
## Projects Under Consideration

Kalai	1040 MW
Hutang	1000 MW
Lata Tapovan	162 MW
Khasiabara	230 MW
Ramam III	90 MW

- NTPC will continue to identify more Hydel projects for development
- NTPC has also been engaged by CEA for preparation of Pre – feasibility reports for few hydro projects

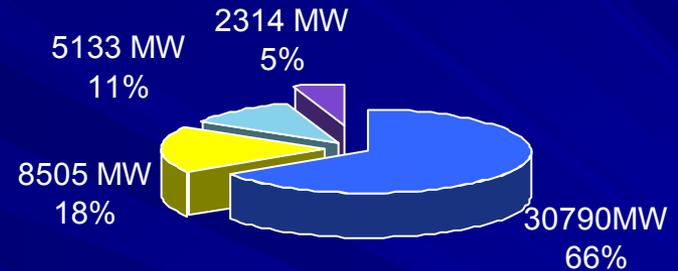
# Further Enhance Fuel Security - Fuel Mix

**Capacity Mix - existing  
(23749 MW)**



■ Coal
 ■ Gas
 ■ JV (Coal)

**Capacity Mix - 2012  
(46742 MW)**



■ Coal
 ■ Gas
 ■ Hydro
 ■ JV (Coal)

**Efforts to change the fuel-mix of installed capacity gradually**

# Exploit New Business Opportunities

Regulatory and economic reforms have thrown new business opportunities

- Forward and Backward integration across energy chain
- Diversifying fuel mix by setting up hydro-power plants
- Exploring various options for setting up of Merchant Plants
- Commenced power trading business
- Entry into electricity distribution
- Exploring business from overseas operations by providing consultancy services

# Other Initiatives

## Technology Initiatives

- Launch of Energy Technology Center -A new initiative for development of technologies with focus on fundamental R&D
- Plans to develop coal based thermal power projects with Super-Critical Technology with higher unit size machines having higher efficiency and lower green house gas emissions
- Roadmap developed for adopting 'Clean Development Mechanism' to help get / earn 'Certified Emission Reduction'
- Geographical Information System (GIS) for mapping environmental data
- New Technologies in C&I systems for improvement in plant performance and efficiencies

# Other initiatives

- Taken up Distributed Generation (DG) for rural electrification
- Implementing APDRP in various Circles and advising SEBs
- Steps taken to establish “Power Exchange” in the country
- Advising SEBs on Efficiency improvements and also engaged in R & M

# Other Initiatives

## Corporate Governance

- Board and Sub-committees of Board including Audit Committee and Governance Committee (Committee on Management Control)
- Well defined Delegation of Power
- Engineering & Project Management Systems
- Contract Systems
- Financial Systems having Internal checks & balances
- Three tier Audit System
  - *Internal Audit to check efficacy of internal controls*
  - *Statutory Audit*
  - *Government Audit – Proprietary Audit*

# Other Initiatives

## Corporation Social Responsibility

- As a responsible corporate citizen NTPC has taken up number of CSR initiatives
- 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

# Contents

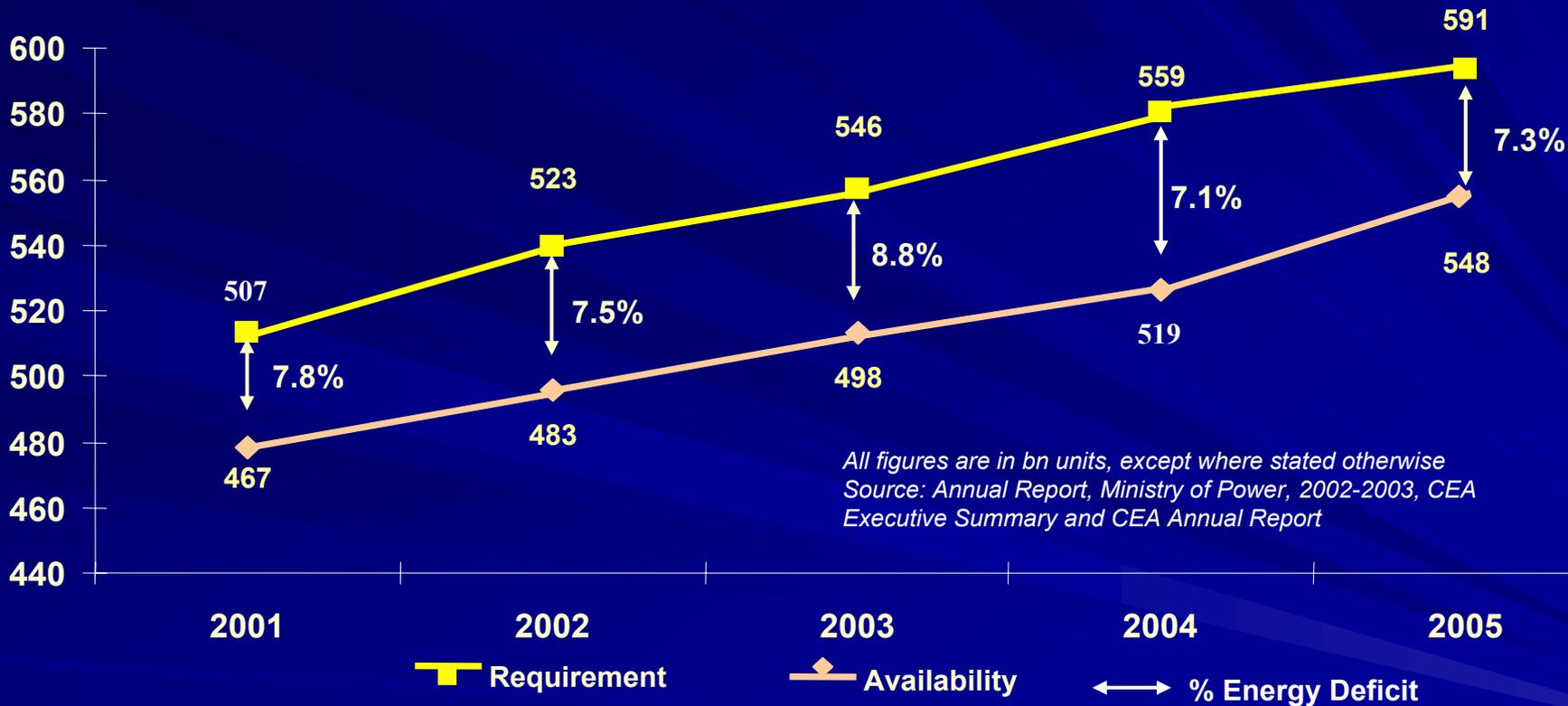
- 1 NTPC's business and strengths
- 2 Performance Highlights
- 3 Key Strategies
- 4 Indian Power Sector
- 5 Key Challenges

---

# Indian Power Sector – An Overview

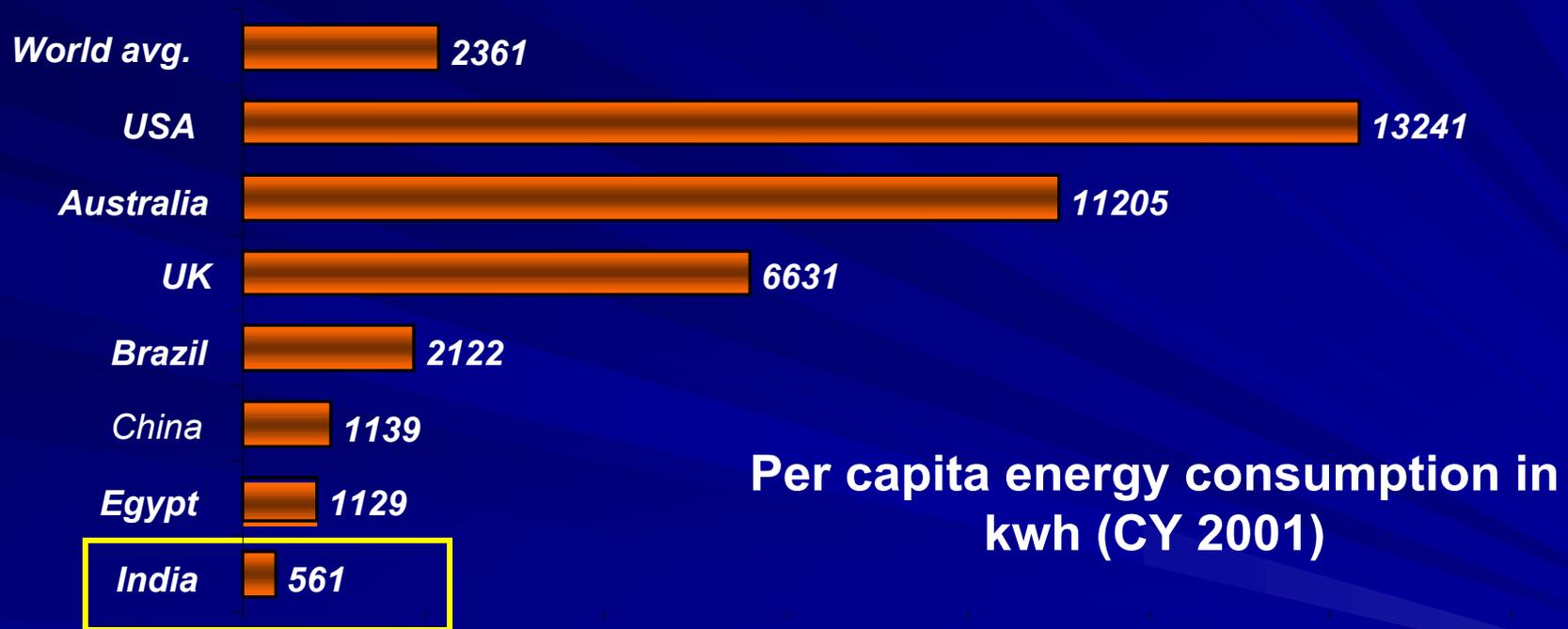
---

# India - a Supply Deficit Power Market



Attractive energy market as demand in India has consistently outstripped supply

# High potential for Growth



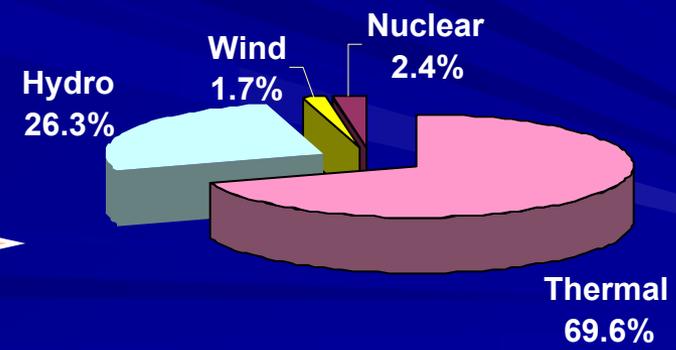
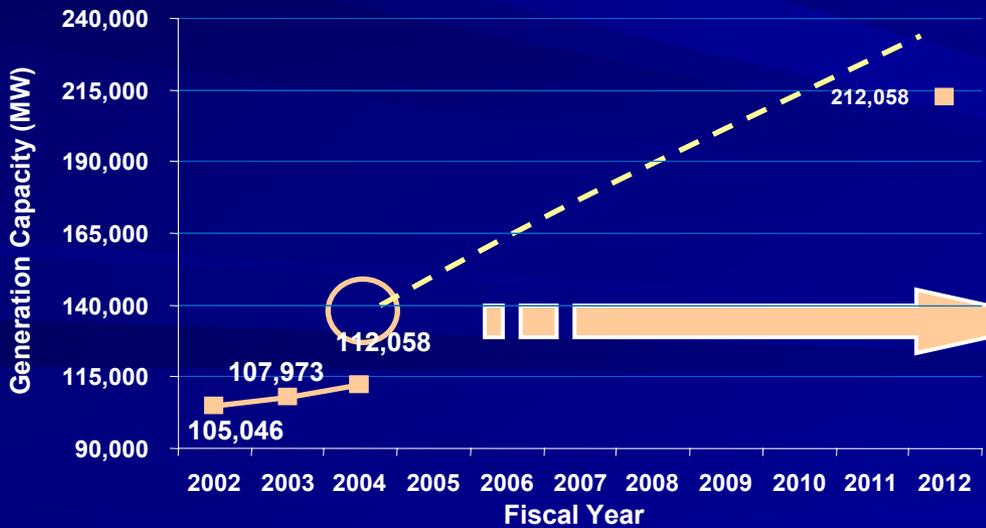
Source: UN Development Program, Human Development Indicators, 2004

# Generation Capacity: Current & Proposed

## Proposed Capacity Addition (Tenth Plan)

	Central	State	Private	Total
Thermal	12,790	6,676	5,951	25,417
Hydro	8,742	4,481	1,170	14,393
Nuclear	1,300	--	--	1,300
<b>Total</b>	<b>22,832</b>	<b>11,157</b>	<b>7,121</b>	<b>41,110</b>

Source: CEA Executive Summary, March 2004



# Contents

- 1 NTPC's business and strengths
- 2 Performance Highlights
- 3 Key Strategies
- 4 Indian Power Sector
- 5 Key Challenges

# Key Challenges

- **Availability of fuel at competitive prices**
  - **Various short, medium and long-term measures to mitigate the risk**
  - **Delay in development of some linked coal mines causing concern on coal supplies**
  - **Availability of Gas**
- **Health of Customers**
  - **Payment discipline arising out of tri-partite agreement**
  - **Commercial realisations are expected to improve**

# Key Challenges

## ■ Regulatory Risk

- Regulator is expected to ensure reasonability of returns and continue to incentivise efficient operations
- Draft National Tariff Policy is indicative of continuing with a regime of reasonable return for all the utilities in the sector

## ■ Competition

- Indian Power Sector has enormous opportunities for growth and NTPC can benefit from enhanced competition

# ***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**

---

## **DISCLAIMER**

The information contained in this document relating to projections and estimates are forward looking statements based on existing laws & Regulations. Actual result may vary material from those expressed or implied, depending upon economic conditions, government policies and other incidental factors. Any opinion expressed is given in good faith but is subject to change without notice. No liability is accepted whatsoever for any direct or consequential loss arising from the use of this documents.