

Company Focus

19 February 2008 | 14 pages

NTPC (NTPC.BO)

Change in opinion
Rating change
Target price change

Upgrade to Buy Post Stock Correction

- Upgrade to Buy** — We upgrade NTPC to Buy/Low Risk from Sell/Low Risk as the stock has corrected 30%+ from its peak of Rs291 in Jan 2008 and given upside to our new target price of Rs235. Our target is raised to Rs235 (from Rs231 earlier) as we roll forward our DCF value to Dec08 from Sep08 earlier.
- Dominant position in India** — NTPC's market leadership (29% share of the country's power generation), competitive cost structure, strong project-implementation skills and robust finances put the company in a strong position to expand capacity to 50GW by FY12E and 75GW by FY17E.
- 9mFY08 recurring PAT up 15% YoY** — NTPC had a steady 9mFY08 with recurring PAT at Rs56.9bn. for growth of 15% YoY led by generation growth of 9% YoY. Though 9mFY08 growth at 15% YoY is lower than our FY08E expectations of 17% YoY, we do not make any changes to our estimates as there is good chance of NTPC making up for this in 4QFY08.
- 6.9GW to be ordered out soon** — In the XIth Plan NTPC is working on capacity of 23,510MW (19,510MW of 100% owned and 4000MW of JVs). Of this 23,150MW of capacity, 16,610MW are under construction and the remaining 6,900MW are to be awarded in the next 3 months.
- 25GW of super-critical projects** — NTPC is working on a portfolio of 24,680MW of super-critical projects, out of which Sipat – I, Barh – I, Barh – II and North Karanpura totaling 7260MW would be commissioned in the XIth Plan (FY08E-FY12E). The remaining would be taken up in the XIIth plan.

Buy/Low Risk	1L
<i>from Sell/Low Risk</i>	
Price (18 Feb 08)	Rs204.80
Target price	Rs235.00
<i>from Rs231.00</i>	
Expected share price return	14.7%
Expected dividend yield	1.8%
Expected total return	16.5%
Market Cap	Rs1,688,671M
	US\$42,579M

Price Performance (RIC: NTPC.BO, BB: NATP IN)



Figure 1. Statistical Abstract

Year to	Net Profit	EPS	EPS Growth	P/E	P / Book	EV/EBITDA	ROE	Div. Yield
31-Mar	(Rsmn)	(Rs)	(%)	(x)	(x)	(x)	(%)	(%)
FY2005A	49,238	6.13	20.2%	33.4	4.0	27.9	12.7%	1.2%
FY2006A	55,714	6.76	10.2%	30.3	3.8	24.8	12.8%	1.4%
FY2007A	68,756	8.34	23.4%	24.6	3.5	18.4	14.7%	1.6%
FY2008E	80,633	9.78	17.3%	20.9	3.2	16.3	15.8%	1.8%
FY2009E	89,878	10.90	11.5%	18.8	2.9	14.8	16.1%	2.0%
FY2010E	99,574	12.08	10.8%	17.0	2.6	13.6	16.2%	2.1%

Source: Company reports, Citi Investment Research estimates

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See Appendix A-1 for Analyst Certification and important disclosures.

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Fiscal year end 31-Mar	2006	2007	2008E	2009E	2010E
Valuation Ratios					
P/E adjusted (x)	30.3	24.6	20.9	18.8	17.0
EV/EBITDA adjusted (x)	22.0	16.6	14.8	13.4	12.2
P/BV (x)	3.8	3.5	3.2	2.9	2.6
Dividend yield (%)	1.4	1.6	1.8	2.0	2.1
Per Share Data (Rs)					
EPS adjusted	6.76	8.34	9.78	10.90	12.08
EPS reported	7.06	8.33	9.78	10.90	12.08
BVPS	54.53	58.94	64.61	70.95	78.01
DPS	2.80	3.20	3.60	4.00	4.40
Profit & Loss (RsM)					
Net sales	267,430	326,887	391,631	440,435	504,320
Operating expenses	-215,233	-249,443	-299,877	-332,808	-377,054
EBIT	52,197	77,444	91,754	107,627	127,267
Net interest expense	-9,585	-15,399	-18,763	-22,716	-28,110
Non-operating/exceptionals	26,078	27,449	28,046	28,137	26,831
Pre-tax profit	68,690	89,494	101,037	113,048	125,987
Tax	-12,976	-20,738	-20,404	-23,170	-26,412
Extraord./Min.Int./Pref.div.	2,488	-109	0	0	0
Reported net income	58,202	68,647	80,633	89,878	99,574
Adjusted earnings	55,714	68,756	80,633	89,878	99,574
Adjusted EBITDA	72,674	98,198	112,508	128,381	148,021
Growth Rates (%)					
Sales	16.5	22.2	19.8	12.5	14.5
EBIT adjusted	16.2	48.4	18.5	17.3	18.2
EBITDA adjusted	12.7	35.1	14.6	14.1	15.3
EPS adjusted	10.2	23.4	17.3	11.5	10.8
Cash Flow (RsM)					
Operating cash flow	68,373	78,385	102,733	111,172	121,682
Depreciation/amortization	20,477	20,754	20,754	20,754	20,754
Net working capital	-10,306	-11,016	1,346	540	1,353
Investing cash flow	-49,159	-44,285	-103,044	-140,341	-186,641
Capital expenditure	-65,279	-78,392	-110,018	-147,063	-189,005
Acquisitions/disposals	0	0	0	0	0
Financing cash flow	4,717	10,605	12,568	28,938	46,220
Borrowings	31,095	42,871	46,407	66,537	87,580
Dividends paid	-26,325	-30,281	-33,840	-37,599	-41,359
Change in cash	23,931	44,705	12,256	-230	-18,739
Balance Sheet (RsM)					
Total assets	717,371	807,643	913,902	1,042,951	1,202,509
Cash & cash equivalent	84,714	129,419	141,675	141,445	122,705
Accounts receivable	8,678	12,523	14,887	16,716	19,175
Net fixed assets	367,235	424,873	514,137	640,446	808,697
Total liabilities	267,784	321,675	381,140	457,911	559,254
Accounts payable	61,402	70,263	83,321	93,555	107,318
Total Debt	201,973	244,844	291,251	357,789	445,368
Shareholders' funds	449,587	485,968	532,762	585,040	643,255
Profitability/Solvency Ratios (%)					
EBITDA margin adjusted	27.2	30.0	28.7	29.1	29.4
ROE adjusted	12.8	14.7	15.8	16.1	16.2
ROIC adjusted	11.2	13.7	14.5	14.1	13.6
Net debt to equity	26.1	23.8	28.1	37.0	50.2
Total debt to capital	31.0	33.5	35.3	37.9	40.9

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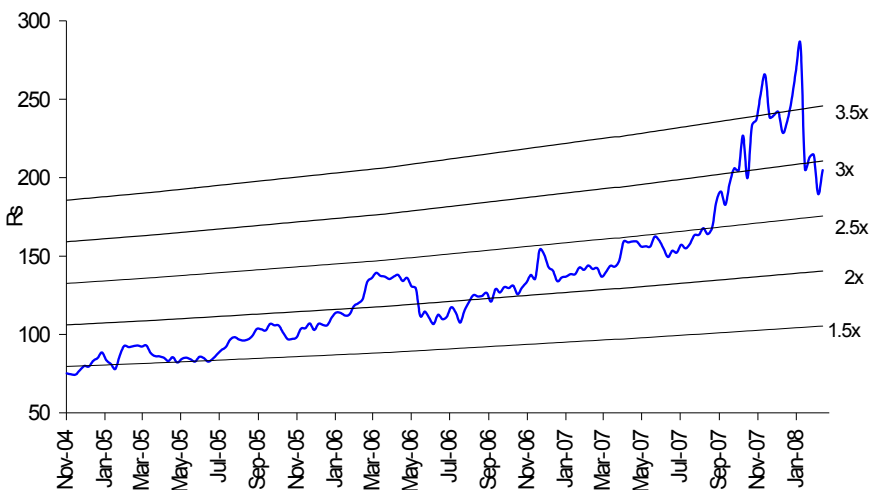


Upgrade to Buy from Sell

We are upgrading NTPC to a Buy /Low Risk (1L) from Sell / Low Risk (3L) as the stock has corrected 30%+ from its peak of Rs291 in Jan 2008 and given upside to our target price of Rs235.

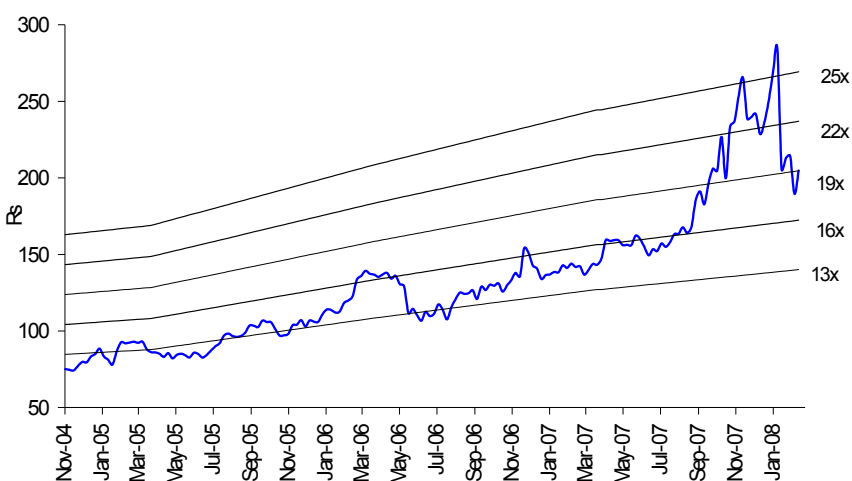
NTPC's market leadership (29% share of the country's power generation), competitive cost structure, strong project-implementation skills and robust finances put the company in a strong position to expand capacity to 50GW by FY12E and 75GW by FY17E. Volatility in earnings would also be minimal – under current regulations, key costs are a pass-through, allowing for post-tax ROE of 14% vs the current 10-year GOI bond yield of 8%.

Figure 2. NTPC 1 Year Forward Rolling P/BV Bands



Source: DataCentral and Citi Investment Research estimates

Figure 3. NTPC 1 Year Forward Rolling P/E Bands



Source: DataCentral and Citi Investment Research estimates

Target price raised to Rs235 from Rs231

Our valuation methodology for NTPC involves setting a floor price for the stock and then valuing the value of growth opportunity (VGO) captured by our Discounted Cash Flow method.

Floor Price of Rs171

We use a replacement cost methodology to set a floor price for the NTPC stock. We have not made any change to our methodology, but have rolled forward to September 2009 capacity. Our Rs40mn/MW enterprise value is justified because:

- (1) NTPC's average age of assets has never crossed 14 years and should come down as the company expands capacity.
- (2) NTPC has been regularly implementing renovation & modernization (R&M) and life extension programmes (LEPs) on its assets.
- (3) NTPC's PLF from coal based plants was 89.43% and from gas based power plants was 71.90% in FY06. The lower PLF of the gas based plants is more on account of unavailability of fuel rather than a technical problem at the power plant level.
- (4) NTPC incremental MW additions would come at an EV of 37.5mn/MW for gas, 50mn/MW for coal, 50 – 60mn/MW for hydel and 70mn+/MW for nuclear.

Figure 4. NTPC Floor Price Table

Part	Rationale	Value
Core Operations (EV - Less Net Debt)	@ Rs40mn/MW on average of FY09E/FY10E Capacity	143
Coal Mining	DCF @ Regulated RoE of 20%	5
Power Bonds	PV of bonds	22
Value/Share		171

Source: Citi Investment Research estimates

DCF-based Target Price of Rs235 (from Rs231 earlier)

The power business in India has secular growth prospects given a current base demand deficit of 9.6% and a peak load deficit of 12.3% and GDP growth of 8% and low penetration levels. Also NTPC has substantial cash and investment holdings. Consequently, we have attempted to value the NTPC stock based on a sum of the parts, using a DCF based valuation for the power generation and coal mining business. We also value the Rs148bn of SEB bonds separately

Based on a weighted average cost of capital of 9.53% ($R_f = 8\%$, $R_m - R_f = 6\%$, $\text{Beta} = 0.8$ Debt: Equity = 0.4:0.6) and a terminal growth rate of 2.5% we get a DCF based equity value of Rs207 for the core business

Figure 5. Target Price Table

Part	Rationale	Value
Core Operations (EV - Less Net Debt)	DCF Value (WACC - 9.53% and g - 2.5%)	207
Coal Mining - Regulated	NPV of Cash Flows @ Regulated RoE of 20%	5
Power Bonds	PV of bonds	22
Value/Share		235

Source: Citi Investment Research estimates

The key reason for a higher DCF value for the core operations is rolling forward of DCF value to Dec 2008 from Sep 2008 earlier.

15% YoY Recurring PAT growth in 9mFY08

- NTPC had a steady 9mFY08 with Recurring PAT at Rs56.9bn growth of 15% YoY lead by generation growth of 9% YoY. Reported PAT at Rs60.8bn was up 19% YoY on account of exceptional items. Despite Recurring PAT being down 8% YoY in 3QFY08, NTPC has shown growth in 9mFY08 on account of solid 28% and 31% YoY growth in Recurring PAT in 1QFY08 and 2QFY08 respectively.
- Though 9mFY08 growth at 15% YoY is lower than our FY08E expectations of 17% YoY we do not make any changes to our estimates as there is good chance of NTPC making up for this in 4QFY08.

Figure 6. NTPC 9mFY08 Results Review

Year End March 31 (Rs million)	9mFY07	9mFY08	% Change
Generation (mu)	136152	148030	8.7%
Net Sales	237523	263174	10.8%
Fuel Cost	(141312)	(152203)	7.7%
% of net sales	59.5%	57.8%	
Employee Cost	(8159)	(14994)	83.8%
% of net sales	3.4%	5.7%	
Others	(10708)	(11851)	10.7%
% of net sales	4.5%	4.5%	
EBITDA	77344	84126	8.8%
% Margin	32.6%	32.0%	
Depreciation	(14673)	(15314)	4.4%
EBIT	62671	68812	9.8%
% Margin	26.4%	26.1%	
Interest	(14242)	(13735)	-3.6%
Other Income: Recurring	20718	22128	6.8%
PBT	69147	77205	11.7%
Provision for tax	(19513)	(20280)	
Tax Rate	28.2%	26.3%	
Recurring PAT	49634	56925	14.7%
Prior Period/Extra-ordinary	1567	3828	
Reported PAT	51201	60753	18.7%

Source: Company Reports

16,610MW under construction and 6,900MW to be ordered

In the XIth Plan NTPC is working on capacity of 23,510MW (19,510MW of 100% owned capacity and 4000MW of JV capacity). Out of this 23,150MW of capacity 16,610MW are under construction and the remaining 6,900MW would be awarded in the next 3 months.

NTPC continues to include the 2600MW of Kawas – II and Gandhar – II capacity in the XIth plan list of projects as single cycle gas plants take 18 months to commission and combined cycle gas plants take 28 months. These plants could be ordered even by March 2009 and yet be completed in this plan period

Figure 7. NTPC – Detailed Xlth Plan Projects

PROJECT (Stake)	STATE	STATUS	FUEL	SIZE (MW)	XITH PLAN (MW)	Rsmn	Rsmn/MW	FY08E	FY09E	FY10E	FY11E	FY12E	FY13E	Equipment Supplier	
KOLDAM (100%)	HP	Awarded	HYDRO	800	800	11,318	56.6		200						
						11,318	56.6	200							
						11,318	56.6	200							
						11,318	56.6		200						
LOHARI NAGPALA (100%)	UKND	Awarded	HYDRO	600	600	7,238	48.3					150			
						7,238	48.3					150			
						7,238	48.3					150			
						7,238	48.3					150			
TAPOVAN VISHNUGARH (100%)	UKND	Awarded	HYDRO	520	520	7,027	54.1					130			
						7,027	54.1					130			
						7,027	54.1					130			
						7,027	54.1					130			
DADRI EXT (100%)	UP	Awarded	COAL	980	980	25,677	52.4			490				BHEL	
						25,677	52.4				490				
ARAVALI (50%)	HAR	Awarded	COAL	1,500	1,500	27,643	55.3				1,500				
						27,643	55.3								
						27,643	55.3								
SIPAT-II (100%)	CHG	Awarded	COAL	1,000	1,000	20,198	40.4	500						BHEL	
						20,198	40.4	500							
SIPAT I (100%)	CHG	Awarded	COAL	1,980	1,980	27,745	42.0		660						
						27,745	42.0		660						
						27,745	42.0			660					
BHILAI JV (50%)	CHG	Awarded	COAL	500	500	13,453	53.8	250							
						13,453	53.8	250							
KORBA III (100%)	CHG	Awarded	COAL	500	500	24,485	49.0			500				BHEL	
SIMHADRI-EXT (100%)	AP	Awarded	COAL	1,000	1,000	25,000	50.0				500				
						25,000	50.0				500				
KAHALGAON II (100%)	BIH	Awarded	COAL	1,000	1,000	19,561	39.1	500							
						19,561	39.1	500							
BARH-I (100%)	BIH	Awarded	COAL	1,980	1,980	28,977	43.9		660						
						28,977	43.9		660						
						28,977	43.9			660					
FARAKKA (100%)	WB	Awarded	COAL	500	500	25,704	51.4				500			BHEL	
ENNORE-JV (50%)	TN	Awarded	COAL	1,000	1,000	27,643	55.3					500			
						27,643	55.3				500				
MAUDA (100%)	MAH	Awarded	COAL	1,000	1,000	27,643	55.3				500				
						27,643	55.3				500				
BARH II (100%)	BIH	Not Placed	COAL	1,320	1,320	29,700	45.0				660			Likely BHEL	
						29,700	45.0				660				
NABINAGAR (74%)	BIH	Awarded	COAL	1,000	750	12,500	50.0					250			
						12,500	50.0				250				
						12,500	50.0				250				
						12,500	50.0					250			
NORTH KARANPURA (100%)	JHAR	Not Placed	COAL	1,980	1,320	29,700	45.0				660				
						29,700	45.0				660				
						29,700	45.0					660			
BONGAIGAON (100%)	ASSAM	Awarded	COAL	750	750	12,500	50.0				250				
						12,500	50.0				250				
						12,500	50.0					250			
BADARPUR-X (100%)	DELHI	Not Placed	COAL	1,000	1,000	27,643	55.3				500			Likely BHEL	
						27,643	55.3				500				
KAWAS (100%)	GUJ	Not Placed	GAS	1,300	1,300	48,750	37.5					1,300		Likely BHEL	
GANDHAR (100%)	GUJ	Not Placed	GAS	1,300	1,300	48,750	37.5						1,300		Likely BHEL
GRAND TOTAL				23,510	22,600	1,112,751		2,500	2,580	3,170	6,060	8,290	910		
IN PARENT				19,510	18,850	1,031,512		2,000	2,580	3,170	4,560	6,540	660		

Source: Citi Investment Research estimates, NTPC and CEA

Working on 25GW of super-critical projects

NTPC is working on a portfolio of 24680MW of super-critical projects out of which it is expected the Sipat – I, Barh – I, Barh – II and North Karanpura totaling to 7260MW would be commissioned in the XIth Plan (FY08E-FY12E).

Figure 8. NTPC's Super Critical Projects

S.No	Project	Unit Size	Capacity (MW)	Status
1	Sipat - I	3 X 660MW	1980	Under Construction
2	Barh - I	3 X 660MW	1980	Under Construction
3	Barh - II	2 X 660MW	1320	LOA yet to be awarded
4	North Karanpura, Jharkand	3 X 660MW	1980	LOA yet to be awarded
Total in XIth Plan			7260	
5	Darlipalli, Orissa	4 X 800MW	3200	LOA yet to be awarded
6	Lara, Chattisgarh	5 X 800MW	4000	LOA yet to be awarded
7	New Nabinagar, Bihar	3 X 660MW	1980	LOA yet to be awarded
8	Cheyur, Tamil Nadu	3 X 800MW	2400	LOA yet to be awarded
9	Marakanam, Tamil Nadu	4 X 800MW	3200	LOA yet to be awarded
10	Tanda - II, Uttar Pradesh	2 X 660MW	1320	LOA yet to be awarded
11	Meja, Uttar Pradesh	2 X 660MW	1320	LOA yet to be awarded
Beyond the XIth Plan			17420	

Source: NTPC and Citi Investment Research

Venture with BHEL

NTPC's JV with BHEL would focus on engineering, procurement and construction (EPC) of power plants for NTPC and other utilities. The company might not enter into production of boiler, turbine and generator (BTG) but could get balance-of-plant (BOP) work, which will help BHEL in accelerating delivery.

Venture with Bharat Forge

NTPC has signed an MoU with Bharat Forge Limited (BFL) to promote a JV with an equity participation of 49:51 by NTPC and BFL respectively, to take up manufacture of castings, forgings, fittings and high pressure piping required for power and other industries, balance of plant (BOP) equipment for the power sector. We believe that this JV can supply equipment to BHEL and the NTPC – BHEL JV for EPC work on power projects.

Integrated power major by FY17E

NTPC has drawn up a perspective plan of becoming an integrated power major by FY17. Key elements of this plan include:

- 50GW of capacity by FY12E with 23% market share and 75GW of capacity by FY17E with 25% market share. The capacity addition would be multi-pronged through greenfield projects, brownfield projects, joint ventures and acquisitions.
- In terms of fuel mix NTPC plans to diversify into hydel power (1,920MW in the XIth plan), nuclear power (1,000MW in the XIIth plan) and renewable power (1,000MW in the XIIth plan). For the renewable venture NTPC has

signed an MoU with ADB on July 23, 2007 to set up a JV to establish and hold a portfolio of 500MW of renewable capacity.

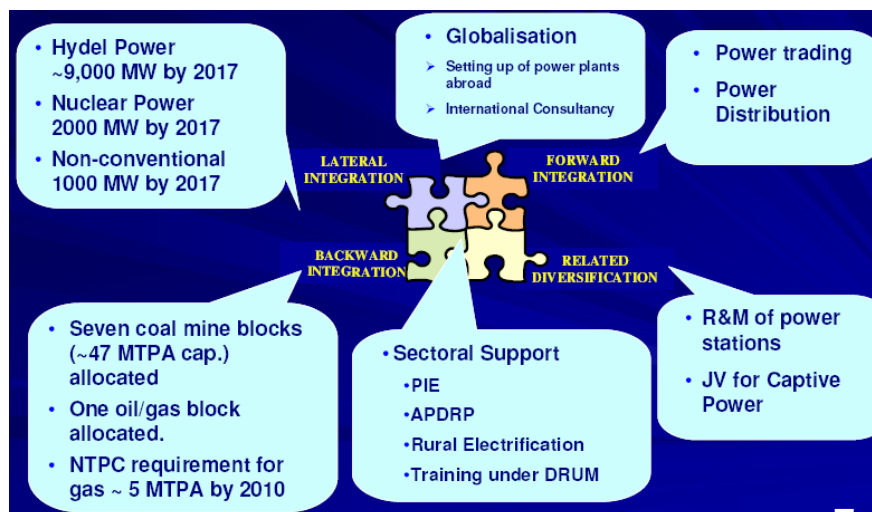
Figure 9. Perspective Plan 2017

	FY07	FY12E	FY17E
Power Capacity (MW)	27,404	50,004	75,000
Coal Mining (mn TPA)	0	15	47
Trading (bu)	2.66	10.0	25.0
Distribution Capacity (MW)	0	1000	2000

Source: Citi Investment Research estimates

- NTPC also plans to expand its trading business from trading 2.7bu in FY07 to 25bu by FY17E through NTPC Vidyut Vyapar Nigam.
- NTPC has already been allocated 7 coal mines with reserves with estimated mineable reserves of 2900 mn tonnes. NTPC plans to spend Rs100bn on coal mining over the next 10 years and expand mining capacity to 15mn tonnes by FY12E and 47mn tonnes by FY17E.

Figure 10. NTPC – Integrated Power Major



Source: NTPC

NTPC

Company description

NTPC is India's largest power generator with 26GW of capacity (23% of India's installed capacity) and generates 189bu (29% of India's generation). The company's capacity is spread across 21 locations with coal-based units (22.4GW), gas-based units (3.9GW) and JV projects (1.0GW). NTPC's output is contracted through long-term PPAs (25 years for coal-based and 15 years for

gas-based) with its customers (SEBs 99% of its sales). Currently, the entire billing to the SEBs is secured through letters of credit. NTPC plans to double capacity by FY12E and triple capacity by FY17E. Our optimism about NTPC achieving its targeted growth is based on the company's strong finances and project implementation record.

Investment strategy

We rate NTPC Buy/Low Risk as the stock has corrected 30%+ from its peak of Rs291 in Jan 2008 and given the upside to our target price of Rs235. NTPC's market leadership (29% share of India's power generation), competitive cost structure, strong project-implementation skills and robust finances put the company in a strong position to expand capacity to 50GW by FY12E and 75GW by FY17E. Volatility in earnings would also be minimal – under current regulations, key costs are a pass-through, allowing for post-tax ROE of 14% vs the current 10-year GOI bond yield of 8%.

Valuation

Our valuation methodology for NTPC involves setting a floor price for the stock and then valuing the value of growth opportunity (VGO) captured by our DCF calculation. We set a floor price of Rs171 for the NTPC stock using replacement cost of assets methodology and adding the value of power bonds and coal mining. However, we believe the replacement cost of method does not fully capture the upside inherent in NTPC's unprecedented capacity addition plan against a backdrop of persistent peak and base load deficits in India that is further exacerbated by rapid economic growth. To capture this value we use a DCF methodology and set a target price of Rs235.

Risks

We rate NTPC as Low Risk according to our quantitative risk-rating system, which tracks 260-day historical share price volatility.

Key risks to NTPC's operations and our earnings forecasts could emanate from:

- NTPC's operations depend on timely availability of fuel. NTPC's gas based plants have been hampered by poor fuel supply, resulting in sub optimal capacity utilization.
- NTPC is implementing larger modules and newer technologies such as 660MW and 800MW super-critical technology and alternative fuels such as gas and hydro more aggressively. These initiatives could place demands on the company's project management and technology absorption skills.
- NTPC's regulated rate of return for the period FY05-09 was reduced from 16% to 14% (post tax ROE) due to falling interest rates and the presence of a payment security mechanism. Any further reduction post FY09 would affect earnings and profitability.

- The UI rates are very high compared to the normal tariff rates and there could be likely pressure from the SEBs to reduce this spot market premium.
- There could be a likelihood of future payment risks due to the resurfacing of free power supply to agricultural customers as a populist measure by a few states.
- NTPC has entered into a JV with GasPatrol, France & Canoro Resources, Canada and has bid for an oil & gas exploration block in northeast India. This does raise the risk of non-discovery as is the case in any exploration & production (E&P) venture.

Appendix A-1

Analyst Certification

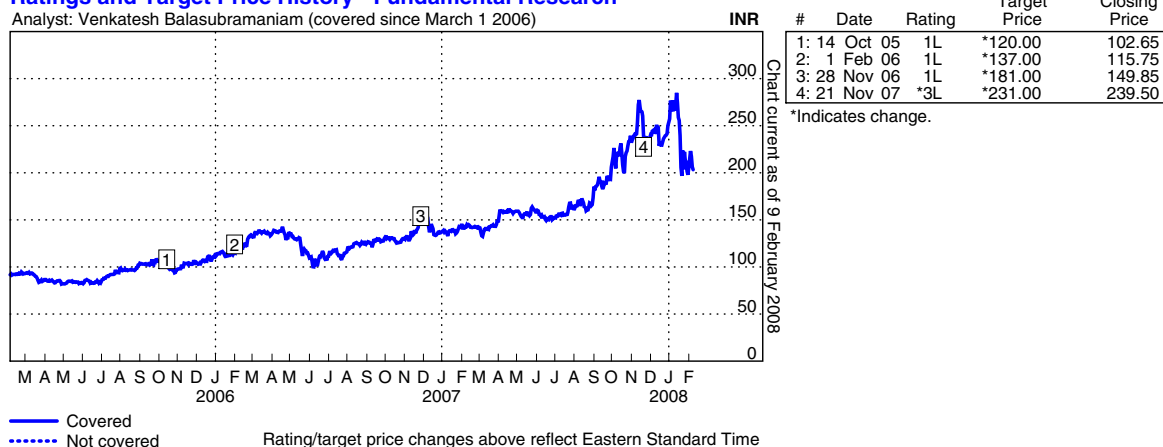
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IMPORTANT DISCLOSURES

NTPC (NTPC.BO)

Ratings and Target Price History - Fundamental Research

Analyst: Venkatesh Balasubramaniam (covered since March 1 2006)



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