

Stock Note

NTPC Ltd

March 20, 2023





Industry	LTP	Recommendation	Base Case Fair Value	Bull Case Fair Value	Time Horizon
Power	Rs. 176.95	Buy in the band of Rs. 175-179 and add more on dips in Rs. 155-159 band	Rs. 193	Rs. 206	3-4 quarters

HDFC Scrip Code	NTPLTDEQNR
BSE Code	532555
NSE Code	NTPC
Bloomberg	NTPC IN
CMP Mar 17, 2023	176.95
Equity Capital (Rs cr)	9696.67
Face Value (Rs)	10.0
Equity Share O/S (cr)	969.7
Market Cap (Rs cr)	171049.2
Book Value (Rs) - Consol	145.9
Avg. 52 Wk Volumes	16278681.1
52 Week High	182.95
52 Week Low	131.70

Share holding Pattern % (Dec 2022)	
Promoters	51.1
Institutions	46.3
Non Institutions	2.6
Total	100.0



**HDFCsec Retail research
stock rating meter**

for details about the ratings, refer at the end of the report

* Refer at the end for explanation on Risk Ratings

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Our Take:

NTPC Ltd is the largest power generating company in India with 17% of India's capacity and 24% of generation having installed capacity of 71594 MW as on March 01, 2023. Additional projects having capacity of 17543 MW are under construction as the company aims to reach an installed capacity of 130 GW by 2032. This translates into 5,000 – 6,000 MW capacity addition every year until 2032 providing long-term earnings visibility. The company operates under a regulated business model with CERC determined tariffs and a fixed ROE, allowing it to pass on rising fuel costs. NTPC has also made reliable and adequate fuel arrangements with maximum supplies from domestic sources, increasing production from captive mines and sourcing imported coal for balance requirements.

Globally, there have been many changes in the energy landscape. Transition to renewable sources of energy has gained acceleration. At the same time, energy security has become a priority for every nation. We believe NTPC has the potential to help the country fulfil both these objectives. It is working on multiple fronts and multiple models to realize a target of achieving 60,000 MW of renewable capacity by 2032. The group is also adding coal-based capacity, hydropower, and nuclear capacity and working on storage technologies to secure affordable and reliable (24x7) power for all.

NTPC continues to maintain O&M excellence indicated by low tariffs and double-digit lead in All India PLFs (74.45% vs 63.27%) for 9MFY23. It posted its higher ever profits for a financial year in FY22. We believe NTPC is amongst the safest bets in the power sector given its dominant position in generation, regulated business model and adequate fuel supply arrangements.

Valuation & Recommendation:

NTPC recorded an all-time high generation of 360 BUs in FY22, an average of 1 BU every day. It achieved the 100 BUs generation mark in 88 days in Q1FY23, which is the fastest till date. The numbers for 9MFY23 indicate growth of ~12.9% over FY22.

NTPC plans to add 60,000 MW of renewable energy capacity by FY32 of which it has 3154 MW operational, another 4718 MW under construction and the rest under planning and feasibility. Additionally, it has 10620 MW thermal projects and 2255 MW of hydro projects under construction. We believe earnings will grow at 9.0% CAGR over FY22-25E. NTPC is also planning to sell 10 – 20% stake in its renewable business in March 23. At CMP, company is available at an attractive dividend yield of 4.0%.



We have arrived at a SOTP based base case fair value of Rs. 193 and bull case fair value of Rs. 206 over the next 3-4 quarters. Investors can buy the stock in the band of Rs 175-179 and add more on dips in Rs 155-159 band.

Financial Summary (Standalone)

Particulars (Rs cr)	Q3FY23	Q3FY22	YoY-%	Q2FY23	QoQ-%	FY21	FY22	FY23E	FY24E	FY25E
Net Revenues	41411	30266	36.8	40623	1.9	99154	116742	118309	126877	148808
EBITDA	13239	9723	36.2	9130	45.0	30182	33226	37436	43441	53808
APAT	4476	4246	5.4	3594	24.5	14438	14882	16277	17793	19293
EPS (Rs)	4.6	4.4	5.4	3.7	24.5	14.7	15.0	16.8	18.3	19.9
RoE-%						13.2	12.8	13.2	13.4	13.1
P/E (x)						12.1	11.8	10.5	9.6	8.9
P/B (x)						1.6	1.5	1.4	1.3	1.2

(Source: Company, HDFC sec)

Q3FY23 Result Review:

Generation/sales increased by 8.3%/7.7% YoY to 78.6/72.9 BUs in Q3FY23, led by higher power demand. Blended realization also increased by 29% YoY to Rs. 5.7/unit due to a rise in fuel prices. PAF improved across both coal/gas in Q3 to 92.7%/98.5%, vs 85.9%/89.9% YoY, due to better fuel supply. While coal PLF improved to 68.9% vs 67.7% YoY, it declined for gas to 3.4% vs 6.2% YoY. Accordingly, under-recovery for 9MFY23 came in at ~Rs. 548 Cr, vs Rs. 692 Cr in the corresponding period last year.

Revenue increased 36.8% YoY to Rs. 41411 Cr, while adjusted PAT increased 5.4% YoY to Rs. 4476 Cr, led by better PAF and power demand. Incentive income for the quarter stood at Rs. 125 Cr and for 9MFY23 stood at Rs. 424 Cr. Late payment surcharge income for Q3 and 9MFY23 was Rs. 67 Cr and Rs. 459 Cr respectively.

Recent Developments:

NTPC received bids for monetization of green energy arm

NTPC was looking to monetize 10 – 20% of its stake in its wholly owned subsidiary - NTPC Green Energy Limited (NGEL), holding its renewable energy assets. Petronas has offered ~Rs. 3800 Cr (\$460 million) to buy a 20% stake in the green energy arm valuing it at around Rs. 19000 Cr. Petronas offered Rs. 27.52 per share, whereas REC offered Rs. 15.47 per share and IGL offered Rs. 6.67 per share. NGEL will drive the parent company's non – fossil business.



The Cabinet Committee on Economic Affairs on March 17, 2023 granted exemption to state- owned giant NTPC Limited to invest more than the prescribed limit in its green energy subsidiary, NTPC Green Energy Ltd (NGEL). NTPC's net worth stood at Rs 1.28 lakh crore, as per its annual report for the financial year 2021-22. Presently, the Maharatna central public sector undertakings require approval of the Union Cabinet to invest an amount more than 30 percent of its net worth.

Key Triggers:

Capacity Addition provides long-term earnings visibility

The company has plans to add more than 15,000 MW capacity in the next 3 years and more than 60,000 MW in the next 10 years. 17,543 MW capacity is under construction while ~42 GW capacity is under feasibility study and planning. We are positive on the execution capability of the company, given its past record of capacity addition.

Particulars	Fuel Mix	Capacity (in MW)
Under Construction	Coal	10620
	Hydro	2255
	RE	4668
	Total	17543
Feasibility and Planning	Coal	6000
	RE via Solar parks	26000
	RE via CPSU Schemes	10000
	Total	42000

(Source: Company, HDFC sec)

Standalone CWIP was Rs. 75,449 Cr as on December 31, 2022. CWIP ratio will continue to reverse due to accelerated commercialization. ROE will expand, as the equity blocked in CWIP will start earning. Turnaround from CWIP to Property Plant Equipment will continue to remain quick due to shorter timeframes of renewable projects execution.

Acquisition opportunities

There are opportunities to acquire stranded power plants to cater to the rising demand. NTPC has successfully acquired Jhabua Power Limited through Corporate Insolvency Resolution Process having an operational thermal capacity of 600 MW.



Fuel Security

NTPC has assured coal supply because of its long-term fuel supply agreements (FSAs) with Coal India Limited (CIL) and Singareni Collieries Company Limited (SCCL) for supply of coal for 20 years for total Annual Contracted Quantity (ACQ) of 183 MTPA. It has also signed a supplementary agreement for aggregation of ACQ at CIL subsidiary level, which will result in optimum utilization of coal reducing energy charge rate (ECR) and avoidance of loss of fixed charges due to coal shortage. 60% of the company's coal based capacity is linked to coalmines via belt conveyor system and merry-go-round. Contracts for procurement 16 MMT of imported coal were also made to avoid shortage of coal.

The company also has 7 captive coal blocks with combined Peak rated capacity of 71 MMT. It achieved coal production of 14 MMT in FY22 (up 27% YoY) and production of 13.75 MMT in 9MFY23 (up 48.6% YoY). The target from captive coal blocks is 50 MMT by 2027. To avoid any shortage, the company has also entered into MOU with NLC India to purchase surplus coal from their allotted mines. The assured coal linkages provide comfort that under recovery of fixed costs due to fuel shortage will be insignificant.

Increasing Power Demand

Power demand grew at 4.9% CAGR over the last decade and is expected to grow at ~6% in the next decade. We expect electricity demand to rise in tandem with the rise in Indian GDP. As the government aims to make India self-reliant and focuses more on the manufacturing sector, power usage will increase. NTPC group is capable of providing power through multiple sources – Renewable, hydro, as well as thermal. Thermal PLF in FY22 at 70.7% crossed the 2019-20 level of 68.2% and further inched up to 74.45% for 9MFY23. With a focus on energy security, the company is preparing to add new thermal capacity. There is a shift in stance from 2019 when only renewable transition was being talked about. According to the Draft National Electricity Plan 2022-27, targeted capacity addition for 2022 – 2027 is 228541 MW and additional 243042 MW from 2027 – 2032 to fulfil India's electricity demand. NTPC is aiming to reach 130 GW capacity by 2032. Summertime energy demand in India in 2023 is likely to shoot up this year as more people are likely to extensive use of air conditioners and air coolers amid early heat wave alerts. The Central Electricity Authority estimates April peak power demand at 229 GW. To further support the power sector, NTPC has been asked to run its 5,000 MW gas-based power stations during the crunch period in April-May.

Low Cost of Debt

NTPC's ratings by domestic and international rating agencies are at par with sovereign ratings. As a result the company has been able to raise capital at very competitive rates in the domestic as well as international markets. The cost of debt for NTPC has reduced from 8.07% in FY15 to 6.32% in 9MFY23.



Interest coverage ratio stood at 3.87x for 9MFY23 and is expected to remain at comfortable levels. The company has profitable operations due to its cost plus tariff formula and operational efficiencies. NTPC's robust financial profile and its debt raising ability ensures that the company continues to remain a low cost power generator thus ensuring affordable electricity for all.

Further Stake Sale by GoI unlikely

Government of India (GoI) has reduced its holding in NTPC from 89.5% in 2004 at the time of listing to 51.1% as on December 31, 2022. Government ownership provides NTPC the financial flexibility to raise funds from international debt markets at competitive rates. GoI will not look to divest further stake in the company to raise funds as this could lead to NTPC losing its sovereign rating.

Regulated Business model and PPA's ensure stable cash flow

NTPC's thermal capacities are tied up with PPAs, usually long term in nature (25 years), assuring offtake and providing long term earnings and cash flow visibility. Tariff therein is determined by CERC in two parts: Fixed Cost (capacity charges) and Variable Cost (energy charges). Fixed cost includes interest, depreciation, operations and maintenance costs, return on equity (profit) and tax liabilities. The variable cost primarily includes fuel cost. Fixed costs are recovered in full if the plant availability factor (PAF) is greater than the normative PAF (currently 85%). NTPC has a history of maintaining availability greater than 87% – 88% and with adequate fuel security and good O&M practices, the same is expected to continue in the future.

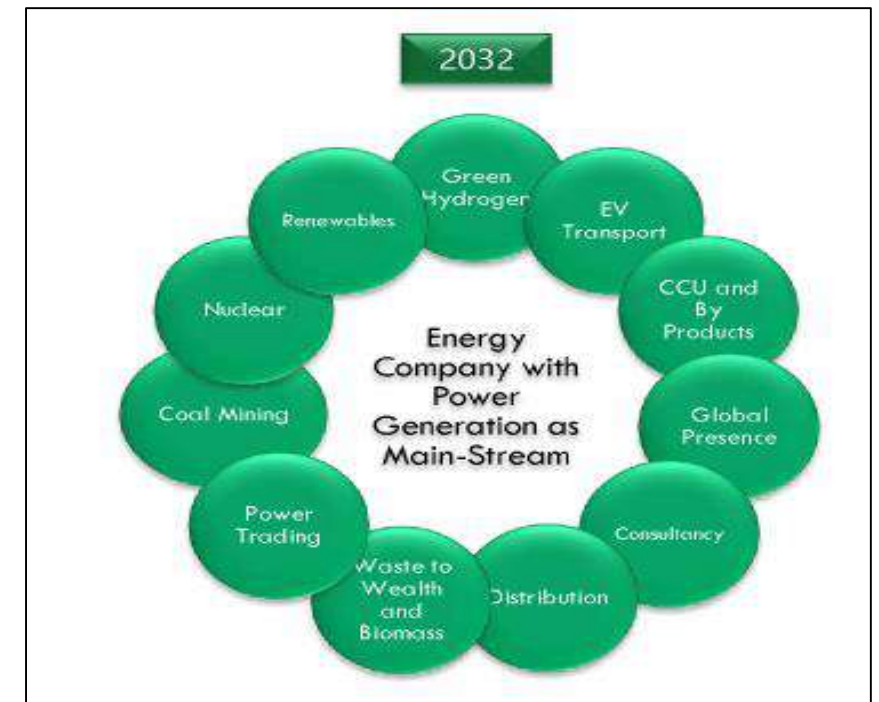
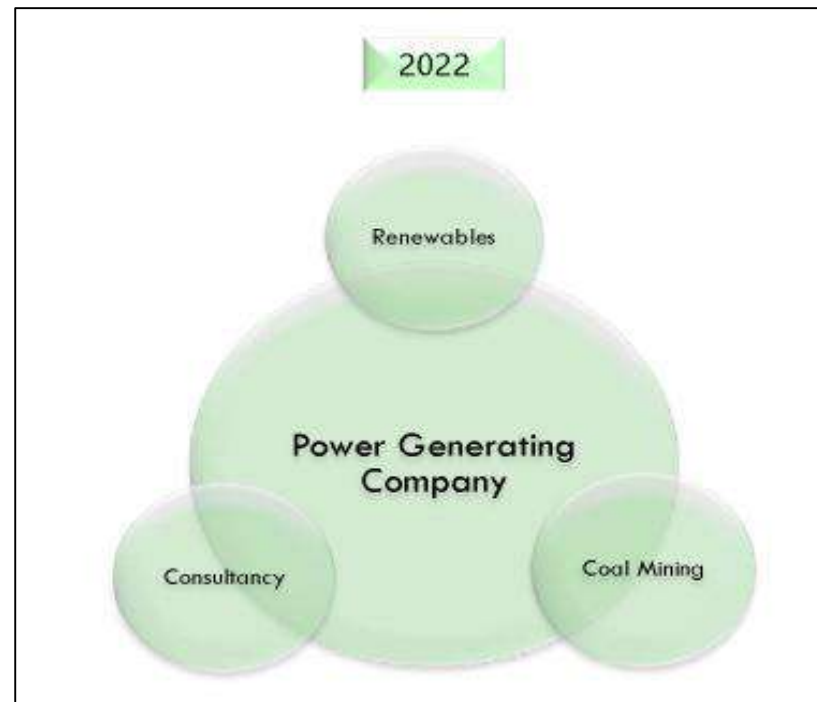
Other Initiatives

NTPC is focusing on strengthening its base business while undertaking new business initiatives. The company is exploring various other opportunities in areas such as:

- **Green Chemicals:** NTPC is exploring opportunities to produce green hydrogen using electricity from RE sources for mobility, production of green fuel (ammonia, methanol), establishing microgrids, natural gas blending with hydrogen for CGD's, etc.
- **E-Mobility:** NTPC is envisaging providing hydrogen and pure electric powertrain based green mobility solutions for public transport, which includes providing hydrogen fuel cell based EVs as well as pure battery operated electric buses. The company's subsidiary has supplied 40 e-buses to Department of Transport, Andaman & Nicobar and 90 e-buses to Bengaluru Metropolitan Transport Corporation. Approximately, 1000 chargers are planned for installation at 204 locations.
- **Cross Border Power Trading:** The Company's subsidiary - NVVN has been assigned the role of Nodal Agency for cross-border power trading by GoI. It has also been nominated as Settlement Nodal Agency for settlement of grid operation related charges with

Bangladesh, Nepal and Myanmar. NVVN has commenced Cross-Border trading with Nepal Electricity Authority through IEX. NVVN transacted 22 BUs during 9MFY23 as against 18 BUs during 9MFY22, registering a growth of 24%.

- International Business: NTPC is exploring business opportunities in the areas of power generation, PMC, O&M contracting, R&M of power plants, capacity building, etc in regions such as Middle East, South East Asia, CIS regions, Latin America and Africa.
- Consultancy: NTPC's Consultancy Wing has been offering services related to the power sector in India and abroad in areas like Owner's Engineer Services, Lender's Engineer Services, Project Management & Construction Supervision, O&M, Renovation & Modernization, Quality Assurance, Inspection services, Customized Training & IT related Services, ERP, Procurement, Recruitment, FGD/ De-NOx installations, Renewable energy, coal mining, etc.





Risks and Concerns:

Generation cost of thermal power may increase due to renewable capacity expansion

As per the Draft National Electricity Plan for 2022-27, the contribution of renewable energy based generation towards total generation by 2026-27 is likely to increase to around 26.4% from the current 11%. In order to increase share of power from renewable sources into the grid, coal based plants will have to regulate their generation and operate at technical minimum capacity, frequent load fluctuations and two-shift operations. This would result in lower efficiency leading to higher cost of generation. Reduced life due to flexible operations, and cost of balancing services would also increase the cost of generation.

Environmental Concerns

Installation of emission control equipment like FGD's (Flue Gas Desulphurization) and DSI (Dry Sorbent Injection) along with combustion modifications and retrofitting of ESPs (Electrostatic Precipitators) are required over the next few years as per norms announced in order to comply with the new standards for water consumption, PM, SOx, NOx and mercury emissions. This will entail a huge capex and as a result lead to an increase in the tariffs. Further, as per new environment norms, all plants are required to achieve 100% ash utilization within a 'compliance period' based on their level of Ash utilization during FY22. Failure to meet these norms would lead to imposition of Environmental compensation. Environmental concerns particularly relating to coal based thermal stations have emerged as a major challenge.

Challenges in scaling up of Renewable Energy

With the ongoing supply chain disruptions and high domestic demand, procurement of cells and modules and managing the logistics is a challenge. There is a major dependency on China to source the required raw materials. Further, the government has imposed basic customs duty on import of modules and increased the GST rate for specified renewable energy parts from 5% to 12%, increasing the cost of setting up a solar power plant. Wind energy has not scaled up due to unavailability of good wind land locations. Another challenge faced by the power generators is the lack of evacuation systems for the generated renewable power.

Weak financial position of discoms

Discoms continue to remain the weakest link in the entire power sector. If power sector reforms do not result in a fundamental improvement in the financial position of state power utilities, the company's collections may be affected. However, LCs backed by tripartite agreements are in place to recover dues from defaulting State Power Utilities (SPUs). NTPC has been able to realize 100% of its billing in FY22. LPS (late payment surcharge) rules have also aided in ensuring timely payment of dues.



Execution Risks

NTPC's aim to add 5,000 – 6,000 MW every year entails a capex in the range of Rs. 25,000 – Rs. 30,000 Cr annually. With substantial projects under execution and RE capacities not protected by regulated returns, time/ cost overruns may adversely affect profitability of such projects. NTPC has in the past bid for solar projects at a low tariff of Rs. 1.99 to Rs. 3. Given the rise in the costs of setting up solar projects, the breakeven for these projects could get delayed.

Fuel shortage

NTPC's allocated domestic gas supplies were diverted to City Gas Distributors due to the unprecedented rise in Gas prices. Challenges in coal transportation also affected the coal inventory at power plants, pushing them below critical levels. Imported coal prices have risen steeply. Fuel shortage would result in declining PAFs and therefore reduced profitability. NTPC has managed to mitigate this by increasing production from captive coalmines, and arranging imported coal.

Risk of reduction in regulated returns

Currently the tariffs for NTPC are determined to ensure a return of 15.5% RoE. These regulations are valid for 2019-2024. In case the regulated returns are revised downwards in the next period, it could result in fall in its earnings.

SOTP Based Valuation FY25E:

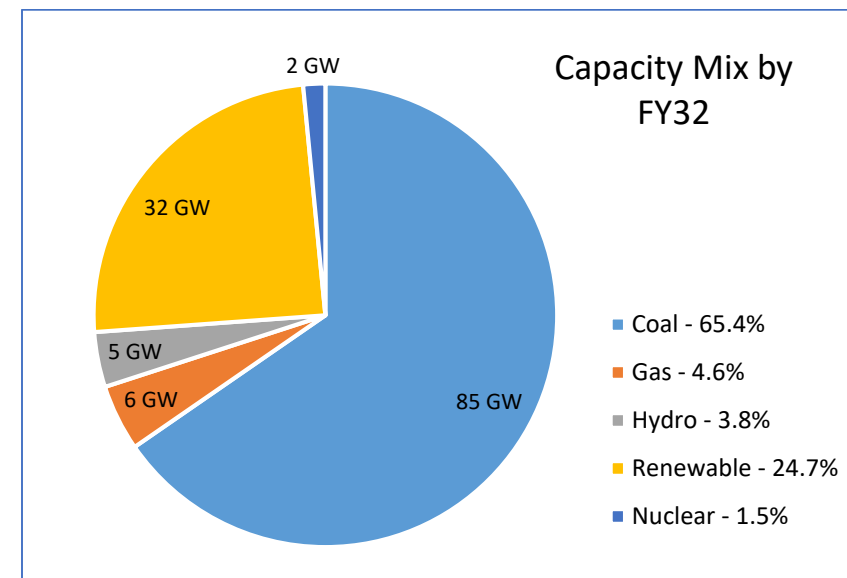
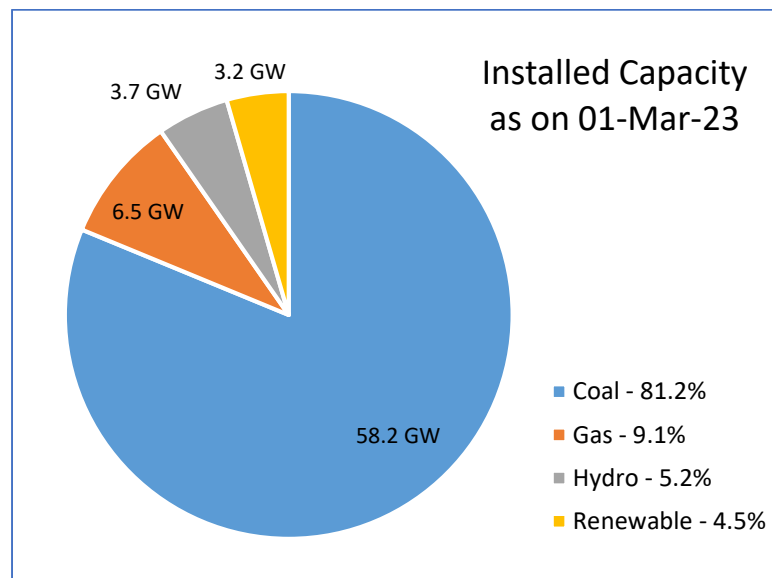
SOTP	Total Value (in Cr)	Per share Value	Base Case		Bull Case	
			Multiple	Rs.	Multiple	Rs.
Regulated Equity – Standalone	85431	88	1.25	110	1.35	119
CWIP – Book Value	20157	21	0.5	10	0.5	10
Cash – Book Value	2455	3	1	3	1	3
Subs and JV - Book Value	48028	50	0.85	42	0.95	47
Renewables – based on Petronas offer	26665	28	1	28	1	28
Target				193		206



About the company:

NTPC is India's largest energy conglomerate with roots planted in 1975 to accelerate power development in India. Since then it has established itself as a dominant power major with presence in the entire value chain of the power generation business. From fossil fuels, it has forayed into generating electricity via hydro, nuclear and renewable energy sources. This foray will play a major role in lowering its carbon footprint by reducing greenhouse gas emissions. To strengthen its core business, the corporation has diversified into fields of consultancy, power trading, training of power professionals, rural electrification, ash utilization and coal mining as well.

The current total installed capacity of the company is 71,594 MW (including JVs) own stations include 33 coal based, 11 gas based, 1 Hydro, 1 Wind, 29 Solar PV and 1 Small hydro plant. Under JV, NTPC has 9 coal based, 4 gas based, 8 hydro based, 1 small hydro and 4 renewable energy projects.



Commensurate with the country's growth challenges, NTPC has embarked upon an ambitious plan to attain a total installed capacity of 130 GW by 2032. Towards this goal, NTPC has adopted a multi-pronged strategy, to be implemented through development of greenfield & brownfield projects, collaborations and acquisitions. The capacity will have a diversified fuel mix and by 2032, non-fossil fuel based generation capacity shall make up nearly 30% of NTPC's portfolio. NTPC became a listed company in November 2004 with the Government holding 89.5% of the equity share capital. Presently, GOI holding in NTPC is 51.10%.



Financials (Standalone)

Income Statement

(Rs Cr)	FY21	FY22	FY23E	FY24E	FY25E
Net Revenues	99154	116742	118309	126877	148808
Growth (%)	4.4	17.7	1.3	7.2	17.3
Operating Expenses	68972	83516	80873	83436	95000
EBITDA	30182	33226	37436	43441	53808
Growth (%)	22.0	10.1	12.7	16.0	23.9
EBITDA Margin (%)	30.4	28.5	31.6	34.2	36.2
Depreciation	10412	11661	12899	15200	16200
Other Income	4346	3719	2975	2380	1650
EBIT	24116	25284	27513	30622	37608
Interest expenses	7459	7827	8156	9473	10573
PBT	16657	17457	19357	21149	25385
Tax and Regulatory Adj	2887	929	3080	3356	3356
RPAT	13770	16528	16277	17793	19293
EO (Loss)/ Profit (Net of Tax)	-668	1646	0	0	0
APAT	14438	14882	16277	17793	19293
Growth (%)	41.4	3.1	9.4	9.3	8.4
EPS	14.7	15.0	16.8	18.3	19.9

Balance Sheet

As at March (Rs Cr)	FY21	FY22	FY23E	FY24E	FY25E
SOURCES OF FUNDS					
Share Capital	9697	9697	9697	9697	9697
Reserves	109289	118354	128121	138796	150589
Total Shareholders' Funds	118985	128051	137817	148493	160286
Total Debt	164089	170647	175749	187065	204965
Other Non-Current Liab.	5323	6206	6206	6206	6206
Net Deferred Tax Liability	9161	10006	10006	10006	10006
TOTAL SOURCES OF FUNDS	297559	314911	329779	351770	381463
APPLICATION OF FUNDS					
Net Block	163892	179580	181895	190785	210785
CWIP	75439	68599	72029	75630	80630
Investments	28626	29881	35857	43029	46029
LT Loans & Advances	11700	13173	13173	13173	13173
Total Non-current Assets	279657	291233	302953	322616	350616
Inventories	9179	9487	12566	12953	13953
Debtors	13702	22293	22689	24333	25333
Cash & Equivalents	2338	2456	3581	2715	2830
Other Current Assets	38344	29028	37083	38990	39431
Total Current Assets	63563	63264	75919	78991	81547
Creditors	38384	32490	40991	41146	41700
Provisions	7276	7096	8103	8690	9000
Total Current Liabilities	45660	39586	49094	49837	50700
Net Current Assets	17902	23678	26826	29154	30847
TOTAL APPLICATION OF FUNDS	297559	314911	329779	351770	381463

(Source: Company, HDFC sec)



Key Ratios

Particulars	FY21	FY22	FY23E	FY24E	FY25E
PROFITABILITY RATIOS (%)					
EBITDA Margin	30.4	28.5	31.6	34.2	36.2
EBIT Margin	19.9	18.5	20.7	22.3	25.3
APAT Margin	12.8	11.6	12.5	12.7	13.0
RoE	13.2	12.8	13.2	13.4	13.1
RoCE	8.6	8.6	8.9	9.3	11.0
SOLVENCY RATIOS (x)					
Net Debt/EBITDA	5.5	5.2	4.8	4.4	3.8
Net D/E	1.6	1.5	1.4	1.4	1.3
PER SHARE DATA (Rs)					
EPS	14.7	15.0	16.8	18.3	19.9
CEPS	25.6	27.3	30.1	34.0	36.6
DPS	6.2	7.0	6.7	7.3	7.7
BVPS	110.7	119.3	129.2	139.9	151.7
TURNOVER RATIOS (Days)					
Inventory	34	30	39	37	34
Debtors	50	70	70	70	62
Payables	203	142	185	180	160
VALUATION					
P/E (x)	12.1	11.8	10.5	9.6	8.9
P/BV (x)	1.6	1.5	1.4	1.3	1.2
EV/EBITDA (x)	11.2	10.4	9.3	8.3	6.9
Dividend Yield (%)	3.5	4.0	3.8	4.1	4.4

(Source: Company, HDFC sec)

One Year Price Chart:



(Source: Company, HDFC sec)



HDFC Sec Retail Research Rating description

Green Rating stocks

This rating is given to stocks that represent large and established business having track record of decades and good reputation in the industry. They are industry leaders or have significant market share. They have multiple streams of cash flows and/or strong balance sheet to withstand downturn in economic cycle. These stocks offer moderate returns and at the same time are unlikely to suffer severe drawdown in their stock prices. These stocks can be kept as a part of long term portfolio holding, if so desired. This stocks offer low risk and lower reward and are suitable for beginners. They offer stability to the portfolio.

Yellow Rating stocks

This rating is given to stocks that have strong balance sheet and are from relatively stable industries which are likely to remain relevant for long time and unlikely to be affected much by economic or technological disruptions. These stocks have emerged stronger over time but are yet to reach the level of green rating stocks. They offer medium risk, medium return opportunities. Some of these have the potential to attain green rating over time.

Red Rating stocks

This rating is given to emerging companies which are riskier than their established peers. Their share price tends to be volatile though they offer high growth potential. They are susceptible to severe downturn in their industry or in overall economy. Management of these companies need to prove their mettle in handling cyclicity of their business. If they are successful in navigating challenges, the market rewards their shareholders with handsome gains; otherwise their stock prices can take a severe beating. Overall these stocks offer high risk high return opportunities.

Disclosure:

I, **Nirmam Mehta**, Research Analyst, **ACA**, authors and the names subscribed to this report, hereby certify that all of the views expressed in this research report accurately reflect our views about the subject issuer(s) or securities. SEBI conducted the inspection and based on their observations have issued advise/warning. The said observations have been complied with. We also certify that no part of our compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) in this report.

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Any holding in stock – Yes

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