

**BSE Code:** 533098    **NSE Code:** NHPC    **Reuters Code:** NHPC.BO    **Bloomberg Code:** NHPC.IN

NHPC Ltd, formerly known as National Hydroelectric Power Corporation Ltd, is a Mini Ratna Category-I Enterprise of the Govt. of India, engaged in the development of hydroelectric power in India. Established in 1975, with an objective to plan, promote and organize an integrated and efficient development of hydroelectric power, NHPC has come a long way, broadening its operational area from concept to commissioning of Hydroelectric Projects, to be one of the largest organizations in the field of hydro power development in the country. Presently it is engaged in the construction of 10 projects with an aggregated total installed capacity of 4,502 MW.

### Investor's Rationale

NHPC is the single largest play on hydro power in India with an installed capacity of 5,295MW (including capacity of 51% subsidiary NHDC) and has another 4,502MW capacity currently under construction. ~5,965MW power projects are currently under approval stage and will add to the pipeline of projects going forward. The company own over 40% of the Hydro generation assets owned by the central utilities.

Under its drive to become 9,500 MW company in the coming 6 years and maintaining a leading position in the hydropower sector, NHPC has also forayed in the thermal power business through its subsidiary NHDC which has been entrusted with the task of setting up the 1,320 MW Reva Thermal Power Project in Khandwa district by the Government of Madhya Pradesh followed by the establishment of a wind power plant in J&K.

The company, during FY11 has achieved the highest ever power generation of 18,606 MUs, exceeding the annual MoU target of 18,000 MUs for an 'Excellent' rating. In fiscal 2011, NHPC also sold 16,293.32 MUs of electricity against 14,841.67 MW sold in FY10.

During the first nine month ended December 2011, NHPC reported 38.9% sales growth at ₹41,240.8 million against ₹29,690.9 million despite de-growth in power generation in most of the NHPC operated projects during Q3FY12. We expect NHPC's revenue to grow at a ~16% CAGR over FY'11-13E, backed by its persistent efforts to maintain its leadership position in the hydro power space. The OPM is expected to stay at ~67% for FY'12 and FY'13 on expected operational pressure due to geological obstacles, natural calamities and other local problems.

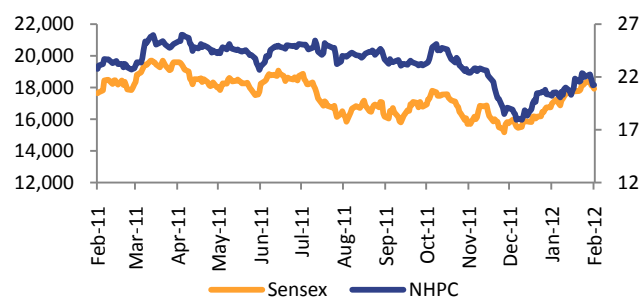
### Market Data

<b>Rating</b>	<b>BUY</b>
<b>CMP (₹)</b>	21
<b>Target (₹)</b>	<b>28</b>
<b>Potential Upside</b>	~33%
<b>Duration</b>	Long Term
52 week H/L (₹)	26.3/17.6
All time High (₹)	36.0
Decline from 52WH (%)	25.2
Rise from 52WL (%)	16.2
Beta	0.7
Mkt. Cap (₹ bn)	261.3
Enterprise Value (₹ bn)	446.5

### Fiscal Year Ended

	FY10A	FY11A	FY12E	FY13E
Revenue (₹bn)	50.4	49.6	59.3	66.4
Net Profit(₹bn)	21.7	23.1	24.3	25.0
Share Capital	123.0	123.0	123.0	123.0
EPS (₹)	1.9	2.0	2.1	2.2
P/E (x)	11.5	10.6	9.9	9.6
P/BV (x)	1.0	1.0	0.9	0.9
EV/EBITDA (x)	10.7	12.3	10.9	9.9
ROE (%)	9.1	9.3	9.4	9.2
ROCE (%)	6.4	5.3	6.0	6.3

### One year Price Chart



### Shareholding Pattern

	Dec'11	Sep'11	Diff.
Promoters	86.4	86.4	-
FII	1.3	1.7	(0.3)
DII	3.3	3.2	0.1
Others	9.0	8.8	0.2



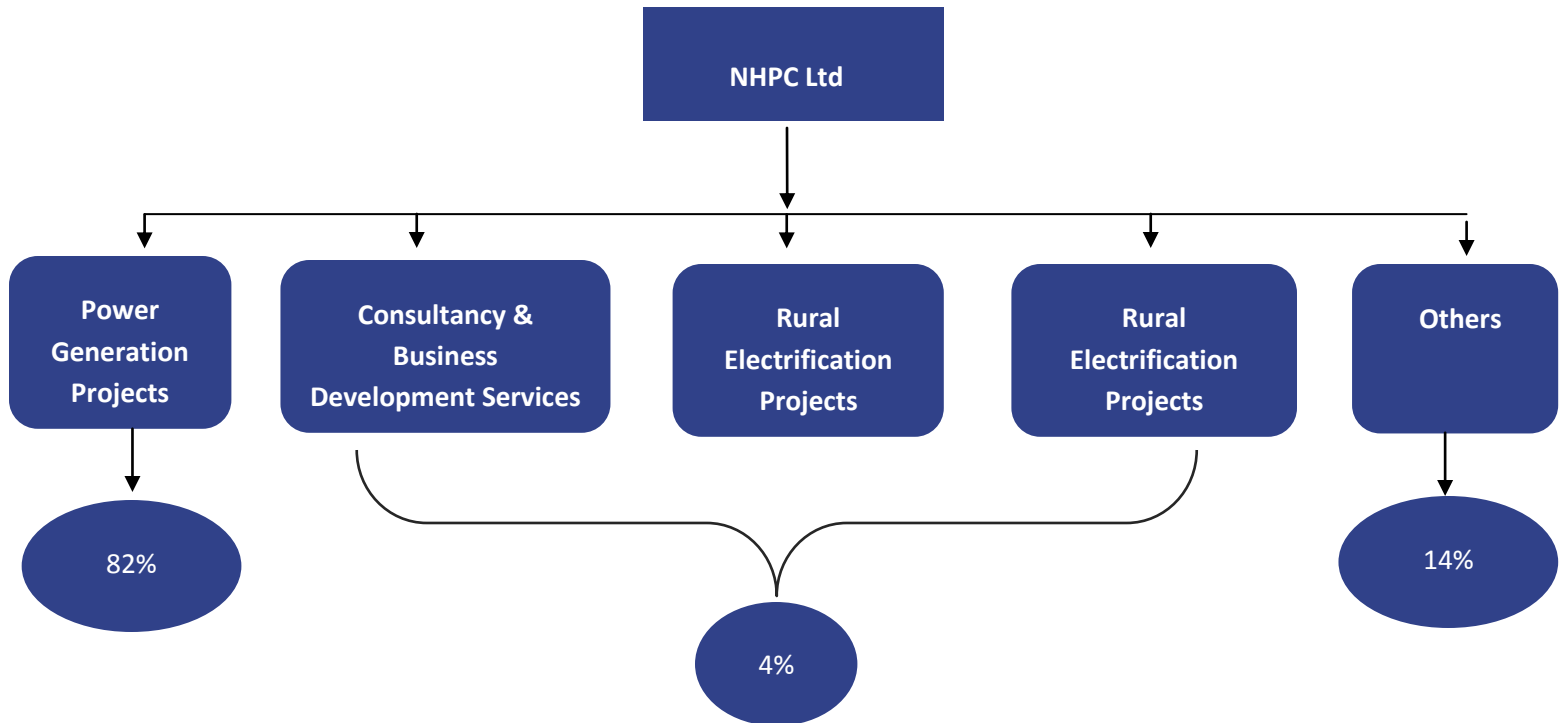
### A Mini Ratna hydroelectric power developer

NHPC is one of the largest organizations in the field of hydro power development in the country, presently engaged in the construction of 10 projects with an aggregated total installed capacity of 4,502 MW. Beside, the Mini Ratna Hydroelectric power developer also has 6 GW of projects in the clearance stage and 4.2GW of projects under survey.

After making its debut in the hydro power space, with the execution of Salal Stage-I, Bairasiul and Loktak Hydro-electric Projects from Central Hydroelectric Project Construction and Control Board, NHPC has strengthened its project portfolio with the execution of 14 projects with an installed capacity of 5,295 MW on ownership basis including projects taken up in joint venture. It also executed 5 projects with an installed capacity of 89.35 MW on turnkey basis, of which 2 projects were commissioned in Nepal and Bhutan. During FY11, NHPC Power Stations achieved the highest ever generation of 18,604 MU. It intends to generate around 2,230 MW of power during 11th five year Plan as it awaits clearance for their implementation of 12 projects aggregated at 9,651 MW. With an investment base of over ₹387,180 million (approx.), NHPC also stands out to be among the Top Ten companies in the country in terms of investment.

*During FY11, NHPC Power Stations achieved the highest ever generation of 18,604 MU. It intends to generate around 2,230 MW of power during 11th five year Plan.*

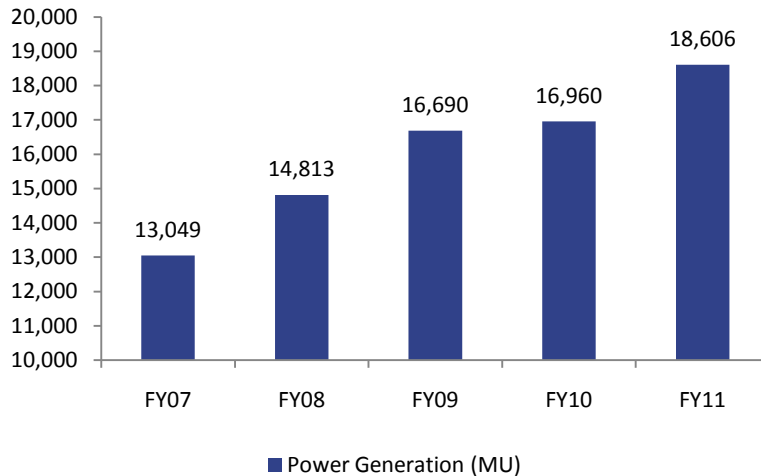
Power generation accounts for 82% of NHPC's revenue basket



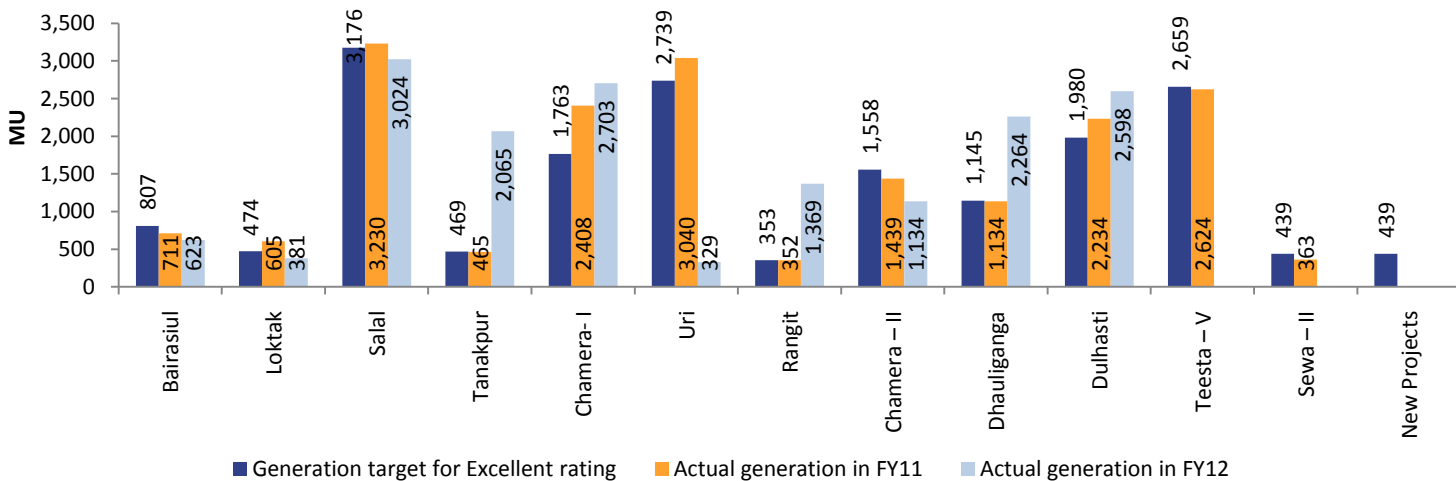


**NHPC achieved the highest ever generation in FY11**

Power generation sees a CAGR growth of 9% in the past 4 years



**Power generation in FY11 exceeds target of 18,000 MUs for an 'Excellent' rating.**



NHPC dominates hydro power development space with wide experience and expertise in implementing projects.

**Strong Operational Capacity**

With strong design and engineering base with in-house expertise in geology, geo-physics, geo-techniques, construction, material surveys, wide experience and expertise in implementing projects, NHPC rules out among its peer group with significant competitive advantages. NHPC's engineering capabilities range right from the stage of conceptualization till the commissioning of projects with added support from international and domestic project consultants. Marking a 9.7% growth in its FY11 power generation at 18,606 MU against a generation of 16,960 MU in the prior fiscal, NHPC exceeded the annual MoU target of 18,000 MUs for an 'Excellent' rating.

Similarly, NHPC's Plant Availability Factor (PAF) for operating power stations was 85.2% (provisional) during 2010-11, as against 84.1% in the previous year thus exceeding the annual MoU target of 79.9 per cent for 'Excellent' rating by 5.3%. Beside, in FY11, NHPC sold 16,293.32 MUs of electricity from its installed capacity of 3,749.20 MW while in fiscal 2010 it sold 14,841.67 MUs from an installed capacity of 3,619.20 MW.



*In FY13, we expect NHPC to achieve capacity addition of 1,059 MW of power with the commissioning of multiple projects*

## Capacity expansion for FY12 lags, FY13 to see 1,059 MW capacity addition

During FY12, battered by geological obstacles, natural calamities and local problems, NHPC's capacity addition programme for the year has witnessed significant setback across its project portfolio. Presently, NHPC is engaged in the construction of 10 hydroelectric projects with an installed capacity of 4502 MW, of which Teesta Low Dam III, Uri II, Chamera III, Nimoo Bazgo, Chutak and Parbati-III are in advanced stages of completion. Despite, interruptions in the timelines due to the heavy snowfall in J&K and Himachal regions for completion of Uri-II and Chamera-III projects, NHPC intends to add an approximate minimum capacity of 313 MW in Feb'12 and Mar'12 against its earlier guidance of 515MW.

For FY13, we expect NHPC to achieve capacity addition of 1,059 MW of power with the commissioning of two units of Chutak - 22 MW, the remaining three units of Uri-II - 180 MW, Teesta Low Dam-III - 132 MW, one unit will be operational and all the Parvati-III units - 520 MW, Teesta-IV - 160 MW and Nimoo Bazgo - 45 MW.

### Projects under clearance/approval

Name of the project	Capacity
Kotli Bhel I-A, Uttarakhand	195 MW
Kotli Bhel I-B, Uttarakhand	320 MW
Kotli Bhel II, Uttarakhand	530 MW
Teesta-IV, Sikkim	520 MW
Dibang, Arunachal Pradesh	3,000 MW
Tawang-I, Arunachal Pradesh	600 MW
Tawang-II, Arunachal Pradesh	800 MW
<b>Total</b>	<b>5965 MW</b>

## NHPC aspires to be 9,500 MW Company by FY18

During the 11th Plan period, NHPC added 1,150 MW to its capacity through three projects, viz. the 510 MW Teesta-V in Sikkim, 120 MW Sewa-II in Jammu and Kashmir and the 520 MW Omkareshwar of NHDC in Madhya Pradesh. NHPC is currently engaged in the construction of 10 hydroelectric projects with a combined installed capacity of 4,502 MW in the states of Jammu and Kashmir, Himachal Pradesh, West Bengal, Arunachal Pradesh and Assam. Seven new projects with a combined capacity of 5,965 MW are in the clearance and approval stages. These projects will come up in the states of Arunachal Pradesh, Sikkim and Uttarakhand. With the commissioning of these projects, NHPC aspires to become a 9,500 MW company in the coming 6 years.

NHPC is committed to maintaining a leading position in the hydropower sector and also expanding its business domain. The Company is making a foray in the thermal power business through its subsidiary NHDC which has been entrusted with the task of setting up the 1,320 MW Reva Thermal Power Project in Khandwa district by the Government of Madhya Pradesh followed by the establishment of a wind power plant in J&K.

*Under its drive to be over 9500 MW Company by FY18, NHPC has also forayed into thermal power operations*



### Status of the ongoing projects

Hydroelectric Projects	State	Proposed Installed Capacity (MW)	Present status	Expected year of completion
Teesta Low Dam III	West Bengal	132	<ul style="list-style-type: none"> <li>Earthwork completed upto 92%,</li> <li>E&amp;M work to be completed in FY12</li> </ul>	FY13
Uri II	Jammu and Kashmir	240	<ul style="list-style-type: none"> <li>Earthwork completed upto 95%,</li> <li>HM completed 85% /E&amp;M to be completed in</li> </ul>	FY12
Chamera III	Himachal Pradesh	231	<ul style="list-style-type: none"> <li>Earthwork completed</li> <li>Reservoir filling started</li> </ul>	FY13
Teesta Low Dam IV	West Bengal	160	<ul style="list-style-type: none"> <li>Earthwork completed upto 87%,</li> <li>E&amp;M work to be completed in FY12/FY13</li> </ul>	FY15
Nimmo Bazgo	Jammu and Kashmir	45	<ul style="list-style-type: none"> <li>Earthwork completed upto 85%,</li> <li>E&amp;M work to be completed in FY12, current completion 75%</li> </ul>	FY13
Parbati III	Himachal Pradesh	520	<ul style="list-style-type: none"> <li>Earthwork completed upto 75%,</li> <li>Scroll case erection of Unit 2,3 completed</li> </ul>	FY15
Parbati II	Himachal Pradesh	800	<ul style="list-style-type: none"> <li>Earthwork completed upto 85%,</li> <li>E&amp;M works also started</li> </ul>	FY16
Chutak	Jammu and Kashmir	44	<ul style="list-style-type: none"> <li>Earthwork completed</li> <li>E&amp;M work to be completed in FY12, unit 1 spinning achieved</li> </ul>	FY13
Subansiri Lower	Assam/ Arunachal Pradesh	2,000	<ul style="list-style-type: none"> <li>Earthwork completed upto 55%,</li> <li>Concreting and other earth works need to be completed</li> </ul>	FY18
Kishanganga	Jammu and Kashmir	330	<ul style="list-style-type: none"> <li>Earthwork completed upto 30%,</li> </ul>	FY18
<b>Total</b>		<b>4,502</b>		

9MFY12 financial performance seen robust with 29% growth in net profits on y-o-y basis

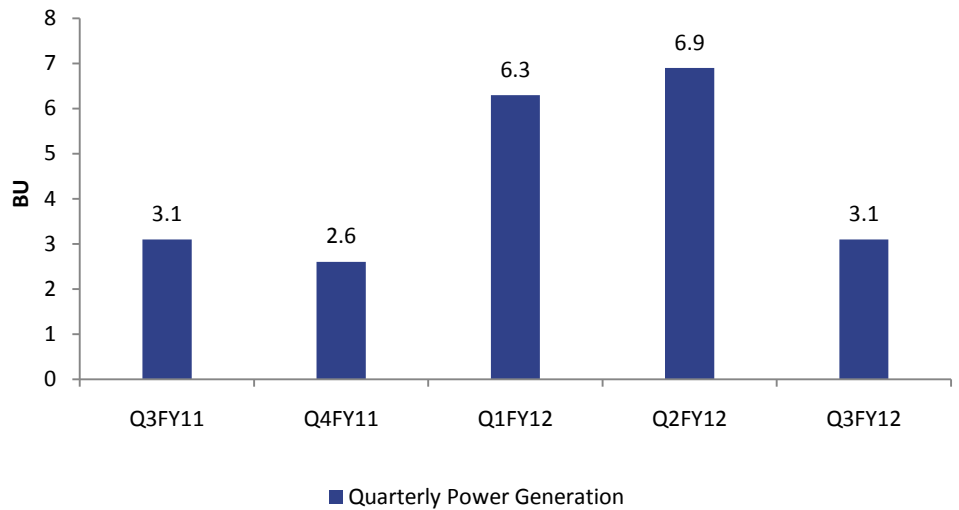
#### 9MFY12 stays robust

During the first nine month ended December 2011, NHPC reported 38.9% sales growth at ₹41,240.8 million against ₹29,690.9 million despite de-growth in power generation in most of the NHPC operated projects during Q3FY12. However, massive operating expenses of ₹15,828 million, which was 136% higher from 9MFY11, restricted operating profits of NHPC at ₹26,281.9 million, causing operating margins to fall around 1,583bps. Net profit of the largest hydro power developer of the country came in at ₹19,697 million at the end of the first nine months of the fiscal, reflecting a growth of 29% (y-o-y).

However, net profit of NHPC reported a significant decline of 29.43% to ₹2,121.8 million during Q3FY12 as barring Loktak, all other NHPC projects reported de-growth in generation and average PLF stood at 38% v/s 37% YoY.



**Q3FY12 Quarterly power generations slips**



*NHPC's consultancy, rural electrifications and rural road development businesses, which collectively contributes only 4% of the company's total revenue, is expected to perform better in the coming quarters backed by higher growth in the order book of these segments.*

**Consultancy & Business Development Services**

Besides, its dominance in the hydro power business, NHPC also has presence in consultancy services in the following fields of hydro power — river basin studies, survey work, design and engineering, geological and geotechnical studies, hydraulic transient studies, hydrological studies, contract management, construction management, equipment planning, underground construction, testing, commissioning and operation and maintenance.

The major consultancy assignments undertaken by NHPC include assignments from Central and State Government agencies like State Electricity Boards and Public Sector Undertakings. NHPC is registered with international financial agencies and the Central Water Commission, as a Consultant in the area of hydro power.

**Rural Electrification Projects**

The company is also implementing rural electrification projects under the Rajiv Gandhi Gramin Vidyutikaran Yojana (RGGVY) in 27 districts spread over the five States of West Bengal, Bihar, Jammu and Kashmir, Chhattisgarh and Orissa at an estimated cost of approximately ₹29 billion. The scope of work includes electrification of 29,709 villages and providing service connections to 20.49 lakh BPL households. During 2010-11, NHPC completed 2667 UE/DE villages and provided 7.48 lakh BPL connections.

**Rural Roads Project**

NHPC has signed a MoU with the Ministry of Rural Development, Government of India and the Government of Bihar for constructing rural roads under the Pradhan Mantri Gram Sadak Yojna (PMGSY). Under this segment, the company has received approval for the construction of 832 roads totaling 3,517 km with a cost of ₹19 billion from the Ministry of Rural Development, Government of India.

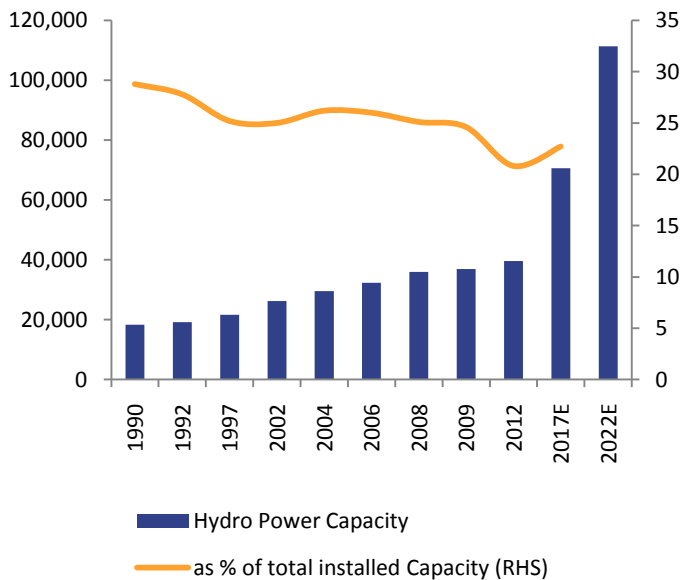


## Plethora of opportunity for hydropower players in India

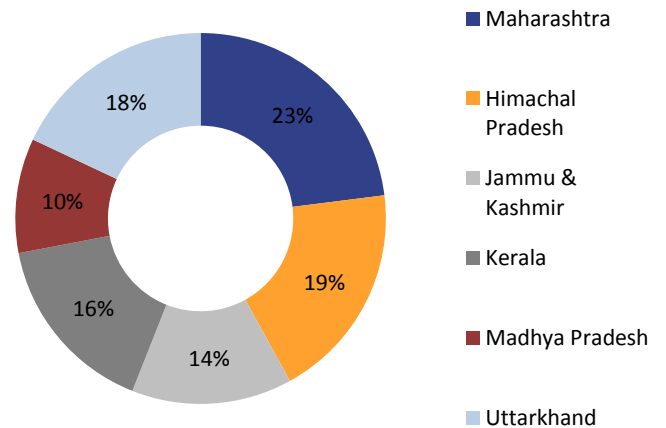
Hydro sector accounts a growth of 10.0%, as the targeted value was 111.4 BU and achieved 114.3 BU in the year 2010-11. According to a report by Central Electricity Authority (CEA), the hydro potential in India is 84,000 MW at 60% load factor which is equivalent to 1,48,700 MW installed capacity. India bags 46 hydro projects out of which major constitutes to small hydro power (SHP) in the range of 1MW to 10 MW. In order to boost the power generation some countries step ahead to lead from the front, for instance, Manila, Philippines, India and the Asian Development Bank has entered into an agreement of \$208 million for the Clean Energy Development Investment Program. In addition to this, India took a loan of \$89.7 million from ADB for the Assam Power Sector Enhancement Program. Besides, the Indian govt. with a capex of \$800 million is ready to set up 4 new hydro power projects of 856 MW in Himachal Pradesh and because of these fresh projects Hydropower capacity in India is set to double by 2017. According to the hydro policy, 2008, India is likely to explore the entire hydropower potential by 2027. This offers enormous opportunity to players operating in the hydel space. Hydropower plants have a significantly higher plant life compared to their thermal counterparts. Some hydropower plants are still operational even 100 years after their commissioning. To meet the all India peak demand and energy requirement at the end of 12th Plan, a capacity addition of more than 90,000 MW has been assessed during 12th Plan (2012-2017), which includes 30,000 MW of hydro electric power. To achieve the ambitious programme of hydro capacity addition in the 12th Plan period, shelf of hydro power projects with aggregate installed capacity of 58,573 MW were identified by CEA.

*According to the hydro policy, 2008, India is likely to explore the entire hydropower potential by 2027. This offers enormous opportunity to players like NHPC, operating in the hydel space.*

Share of hydroelectric in the overall installed capacity



Share of accredited small hydro power capacity by states





## Balance Sheet (Consolidated)

(₹million)	FY10A	FY11A	FY12E	FY13E
Share Capital	123,007.4	123,007.4	123,007.4	123,007.4
Reserve and surplus	128,064.9	142,295.2	156,840.2	172,005.9
Net Worth	251,072.3	265,302.6	279,847.6	295,013.3
Minority Interest	15,895.3	17,357.4	19,327.4	21,417.4
Loan funds	163,515.2	167,716.1	168,556.0	173,892.0
Loan funds	15,398.2	15,075.6	15,550.0	16,050.0
Net Deferred Tax Liability	2,521.0	2,773.6	3,000.0	3,000.0
Capital Employed	448,402.0	468,225.3	486,281.0	509,372.7
Fixed assets	363,635.9	399,002.7	430,620.2	447,671.5
Investment	33,455.2	43,194.0	41,000.0	40,000.0
Net Current Assets	51,310.9	26,028.6	14,660.8	21,701.2
Capital Deployed	448,402.0	468,225.3	486,281.0	509,372.7

## Key Ratios

	FY10A	FY11A	FY12E	FY13E
EBITDA Margin (%)	80.0	70.6	67.1	67.1
EBIT Margin (%)	55.4	47.9	47.8	46.6
NPM (%)	44.1	47.9	43.0	39.5
ROCE (%)	6.4	5.3	6.0	6.3
ROE (%)	9.1	9.3	9.4	9.2
EPS (₹)	1.9	2.0	2.1	2.2
P/E (x)	11.5	10.6	9.9	9.6
BVPS	20.4	21.6	22.8	24.0
P/BVPS (x)	1.0	1.0	0.9	0.9
EV/Operating Income (x)	8.7	9.0	7.6	6.9
EV/EBITDA (x)	10.7	12.3	10.9	9.9
EV/EBIT (x)	15.4	18.1	15.3	14.3

## Profit & Loss Account (Consolidated)

(₹million)	FY10A	FY11A	FY12E	FY13E
Net Sales	50,485.7	49,649.9	59,331.6	66,451.4
Other Op. income	1,130.6	1,786.6	2,019.2	2,127.1
Expenses	10,315.3	15,125.6	20,162.2	22,577.9
EBITDA	41,301.0	36,310.9	41,188.6	46,000.6
EBITDA Margin %	80.0	70.6	67.1	67.1
Depreciation	12,683.5	11,665.5	11,870.4	14,039.2
EBIT	28,617.5	24,645.4	29,318.2	31,961.4
Interest	7,393.7	6,708.8	7,177.5	7,332.9
Other Income	6,329.2	8,070.9	9,500.0	10,000.0
Extra. Items	11.3	(6,564.8)	(3,500.0)	(1,500.0)
Profit Before Tax	27,541.7	32,572.3	35,140.7	36,128.5
Tax	4,766.1	7,944.6	8,785.2	9,032.1
Minority Interest	1,020.0	1,466.1	1,970.0	2,090.0
Profit After Tax	21,755.6	23,161.6	24,385.5	25,006.4
NPM %	44.1	47.9	43.0	39.5

## Valuation and view

NHPC is expected to maintain its leadership position in the hydro power generation segment with the efficient operation of its existing plants and 1.9 x growth in its generation capacity over the next six years to 9,797 MW as against 5,295 MW now. The return ratios for the company, however, are expected to remain low going forward. At the CMP of ₹ 21.25, the stock is trading at P/E of 9.9x and 9.6x on FY'12E and FY'13E EPS, respectively. Similarly, on P/BV multiples, the stock is trading at 0.9x and 0.9x FY'12E and FY'13E, respectively. We maintain our BUY rating on the stock with a target price of ₹28. NHPC has least fuel risk in an environment where fuel security can materially impact earnings and valuation of power utilities.





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