

# NHPC

## Power play on valuations

NHPC is tapping the capital market through an IPO of 1.67 bn shares in a price range of INR 30–36 per share. The IPO consists of 559 mn shares on offer by the Government of India (GoI) and fresh issue of 1.11 bn shares, translating into cash accruals to the company in the INR 33–40 bn range. Post issue, GoI's stake in the company will dip to 86% from 100%.

### ■ Robust history and strong operational performance

The company was set up in 1975 to undertake hydro power generation in India. Its current installed capacity is 3,615 MW and another 1,500 MW through its subsidiary NHDC. These are a combination of reservoir and run of the river projects with returns and earnings governed by regulatory norms.

### ■ Doubling capacity by FY13; targeting 20,000 MW by 2020

NHPC has 4,622 MW of projects under construction, which are expected to be fully operational by FY13. It also has another 6,731 MW projects for which clearances from government are awaited. In addition, the company is carrying out survey and investigation works for projects aggregating 7,255 MW.

### ■ Reported FY09 RoE is ~ 7%; core business RoE is ~18%

Management highlighted that out of the ~INR 180 bn net worth, ~INR 67 bn was in operational power projects, while capital WIP of INR 65 bn and cash equivalents of INR 47 bn account for the balance. Even out of the INR 67 bn, only INR 45 bn is contributing to earnings as the tariff is disputed for a project having balance equity. Adjusting for these and prior period expenses of INR 2.5 bn, RoE from core business was ~18% in FY09.

### ■ Valuation & recommendation: Pricing tight, but SUBSCRIBE for listing gains

Based on the reported RoE of ~7% and significant back-ended capacity addition programme, the P/BV range of 1.7–2.0 for the price band of INR 30–36, we believe, is aggressive. However, considering the marginal premium associated with green power and related carbon credit benefits as well as the prevailing relative PSU power peer set valuations (~3x FY10 P/B) we believe there could be upsides on listing. Hence, we recommend '**SUBSCRIBE**' for listing gains.

**August 6, 2009**

Reuters : NA

Bloomberg : NA

#### EDELWEISS RATING

**SUBSCRIBE**

#### MARKET DATA

Price band (INR)	:	30–36
52-week range (INR)	:	NA
Post IPO share in issue (mn)	:	12,300.7
M cap (INR bn/USD mn)	:	NA
Avg. Daily Vol. BSE/NSE ('000)	:	NA

#### SHARE HOLDING PATTERN (%)

Promoters	:	86.4
Non-Promoters	:	13.6

#### Comparative valuation of PSU power companies

	NTPC	Powergrid	NHPC @36	NHPC @30
Price/share (INR)	216	115	36	30
Book value/share (FY10E) (INR)	69.0	39.0	18.5	18.5
EPS (FY10E) (INR)	10.6	4.9	1.2	1.2
P/B (x)	3.1	2.9	2.0	1.6
P/E (x)	20	23	30	25

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## ■ Objects of the issue

- To part finance construction and development costs of certain projects, viz., Subansiri Lower, Uri-2, Chamera-3, Parbati-3, Nimoo Bazgo, Chutak, and Teesta Low Dam-4.
- General corporate purposes.

**Table 1: Shareholding pattern**

Name of shareholder	Pre-issue		Post-issue	
	Number of shares (mn)	Shareholding (%)	Number of shares (mn)	Shareholding (%)
President of India Public (including Employees)	11,182	100.0	10,623	86.4
	0	0.0	1,677	13.6
<b>Total</b>	<b>11,182</b>	<b>100.0</b>	<b>12,301</b>	<b>100.0</b>

Source: RHP

**Table 2: Details of issue**

	Number of shares (mn)	% of issue	Amount @ 30/share (INR mn)	Amount @ 36/share (INR mn)
Fresh issue of equity	1,118	66.7	33,547	40,257
Offer for sale	559	33.3	16,774	20,128
<b>Total</b>	<b>1,677</b>	<b>100.0</b>	<b>50,321</b>	<b>60,385</b>

Source: RHP

## ■ Company background

NHPC was set up in 1975 to undertake hydro power generation in India. The company's current installed capacity is 3,615 MW and another 1,500 MW through its subsidiary NHDC. These are a combination of reservoir and run of the river projects.

**Table 3: Existing capacities**

Power plant	State	Capacity (MW)	Stake (%)	Year of commissioning	Design energy (mn kwh)	Actual generation (mn kwh)	Estimated tariff (INR/kwh)	Capacity index (%)	Type	NAPAF (%)
Baira siul	Himachal Pradesh	180	100.0	1981	779	673	0.66	93.0	Pondage	85.0
Loktak	Manipur	105	100.0	1983	448	498	1.13	88.0	Storage	85.0
Salal	Jammu and Kashmir	690	100.0	1987/96	3,082	3,009	0.56	99.0	Run-of-river	60.0
Tanakpur	Uttarakhand	120	100.0	1992	452	428	1.01	93.0	Run-of-river	55.0
Chamera 1	Himachal Pradesh	540	100.0	1994	1,665	2,142	1.14	98.0	Pondage	90.0
Uri 1	Jammu and Kashmir	480	100.0	1997	2,587	3,032	1.19	100.0	Run-of-river	60.0
Rangit	Sikkim	60	100.0	1999	339	333	1.39	91.0	Pondage	85.0
Chamera 2	Himachal Pradesh	300	100.0	2004	1,500	1,372	2.19	98.0	Pondage	90.0
Dhuliganga 1	Uttarakhand	280	100.0	2005	1,135	1,117	1.55	90.0	Pondage	85.0
Dulhusti	Jammu and Kashmir	390	100.0	2007	1,907	2,199	3.00	96.0	Pondage	90.0
Teesta V	Sikkim	510	100.0	2008	2,573	1,887	1.62	76.0	Pondage	85.0
<b>Total</b>		<b>3,655</b>			<b>16,467</b>	<b>16,690</b>				
<b>NHDC (51% subsidiary)</b>										
Indira Sagar	Madhya Pradesh	1,000	51.0	2005	1,979	1,569	2.40	98.0	Storage	85.0
Omkareswar	Madhya Pradesh	520	51.0	2007	1,167	800	2.21	99.0	Pondage	90.0
<b>Total</b>		<b>1,520</b>			<b>3,146</b>	<b>2,369</b>				

Source: RHP, CEA, Edelweiss research

All the company's projects are regulated and tariffs as well as earnings are determined by CERC. As per the norms, a hydro power company has to share 12% of the power generated with respective state governments where the plants are located. Hence, the

net sale of power will be lower to that extent. However, since the tariff is based on expenses incurred on the entire plant, there is no deficiency in revenues or earnings.

#### ■ Projects under construction

NHPC has 4,622 MW of projects under construction and expected to be fully commissioned by FY13. These projects, like the existing ones, will also be governed by CERC norms. The authority has recently increased RoE to 15.5% from 14% starting April 2009.

**Table 4: Year wise execution schedule**

Power plant	State	Capacity (MW)	Design energy (mn kwh)	Project cost (INR mn)	Project cost (Mn/MW)	Likely commissioning (as per RHP)
Sewa II	Jammu and Kashmir	120	534	6,655	55	Dec 2009
Chamera III	Jammu and Kashmir	231	1,108	14,056	61	Aug 2010
Parbati III	Uttarakhand	520	1,977	23,046	44	Aug 2010
Nimoo Bazgo	Himachal Pradesh	45	239	6,110	136	Aug 2010
Uri II	Manipur	240	1,124	17,248	72	Feb 2011
Chutak	Jammu and Kashmir	44	213	6,213	141	Feb 2011
Teesta low dam III	West Bengal	132	594	7,689	58	Feb 2011
Teesta low dam IV	Sikkim	160	720	10,614	66	Aug 2011
Subansri lower	Himachal Pradesh	2,000	7,422	62,853	31	Dec 2012
Parbati II	Himachal Pradesh	800	3,109	39,196	49	Mar 2013
Kishanganga	Jammu and Kashmir	330	1,350	36,420	110	Jan 2016
<b>Total</b>		<b>4,622</b>	<b>18,390</b>	<b>230,100</b>		

Source: RHP, CEA, Edelweiss research

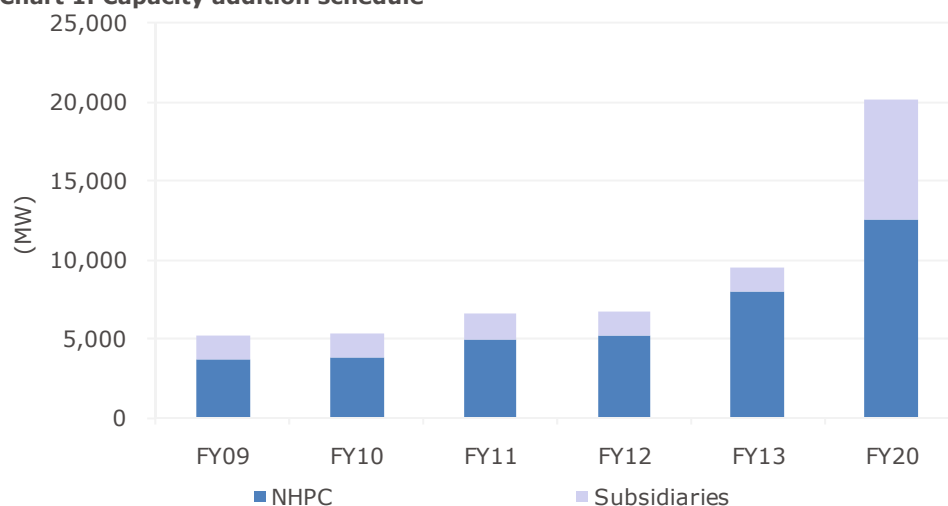
In addition to these projects, NHPC is pursuing the following projects (6,731 MW) which are likely to be commissioned in the Twelfth Plan period (2012–2017). Further, the company is carrying out survey and investigation for projects aggregating 7,255 MW.

**Table 5: Projects awaiting clearances**

Project	State	Capacity MW	Stage
Kotli Bhel stage IA	Uttarakhand	195	Awaiting forest clearance
Kotli Bhel stage IB	Uttarakhand	320	Awaiting forest clearance
Kotli Bhel stage II	Uttarakhand	530	Awaiting forest clearance
Dibang	Arunachal Pradesh	3,000	Awaiting forest and pollution board clearance
Teesta IV	Sikkim	520	
<b>Total</b>		<b>4,565</b>	
<b>Joint ventures</b>			
Loktak downstream	Manipur	66	
Pakal dul and other projects on Chenab river	Jammu and Kashmir	2,100	Awaiting Supreme Court hearing as the projects are located in national park
<b>Grand total</b>		<b>6,731</b>	

Source: RHP, Edelweiss research

Chart 1: Capacity addition schedule



Source: NHPC, RHP, Edelweiss research

#### ■ New regulations snapshot

CERC, in January 2009, announced a modified set of regulatory norms which will determine tariffs for hydro projects. The new norms will be in force/applicable for projects operating between 2009 and 2014.

The broad structure of norms continues to be the same—all costs on actuals (subject to a ceiling in certain elements), profit based on project equity, and scope for higher earnings through efficiency gains.

Key changes, most of which are positive for NHPC, have been on the following points:

1. **RoE** : This has been increased from 14% to 15.5% (if executed in a timely manner then an extra 0.5% ) of the approved project equity for the project.
2. **Recovery of costs benchmarked to actual generation**: Since hydrology plays a significant role in operations of hydro power plants, henceforth, recovery of 50% of fixed costs will be based on actual generation. However, any shortfall below the threshold level (design energy) will be recovered over subsequent years. Earlier, the entire fixed costs were recovered based on the availability of the plant factor.
3. **Incentive calculations**: Efficiency calculations are based on 50% of entire fixed costs which will then be indexed based on the efficiency factor.
4. If due to external factors there is lower generation of electricity then NHPC will be eligible to recover the shortfall in fixed costs over subsequent years.
5. **Reduction in overall depreciation rate by ~1.7%**: Under the old norm, the depreciation rate along with advance against depreciation was ~7% (assuming 10 year loan repayment). Under the new norm, advance against depreciation has been scrapped and the base rate has been hiked to 5.28% for the first 12 years and post that, amortised over the balance life of the asset.

#### ■ Adjusted earnings in FY09

NHPC reported standalone earnings of INR 11.3 bn, which on net worth of INR 178.7 bn, translate into RoE of 6.3% in FY09. Management indicated that its RoE on regulated assets is ~18% after adjusting prior period payments as well as elimination of equity in a non RoE earning project in FY09 earnings. The company expects this to further increase by ~2% due to new norms, largely aided by the hike in RoE.

## ■ Valuation

Peer power PSUs (Powergrid and NTPC) are trading at 3x FY10E book with reported RoEs of ~12-15%. NHPC, with a reported RoE ~7% with potential to expand to ~10% by FY13E, should therefore trade at a discount to them. While the stock may look expensive using traditional valuation approaches, we expect the stock to list at a premium to issue price based on the benchmarks mentioned above. Hence, we recommend investors to **SUBSCRIBE** to the issue for listing gains.

**Table 6: Comparative valuation of PSU power companies**

	NTPC	Powergrid	NHPC @36	NHPC @30
Price/share (INR)	216	115	36	30
Number of shares (mn)	8,246	4,209	12,301	12,301
Market cap (INRbn)	1,781	484	443	369
Book value/share (FY10E) (INR)	69.0	39.0	18.5	18.5
P/B (x)	3.1	2.9	2.0	1.6
Reported RoE (%)	14.9	13.3	6.5	6.5

Source: Edelweiss research

## ■ Key risks

1. Cost overruns in projects under construction.
2. Delay in execution of projects under construction.
3. Hydrological risks (inadequate water flow) which could impact earnings over the short term.
4. Any adverse regulatory changes.

## Financial statements (standalone)

<b>Income statement</b>					<b>(INR mn)</b>
Year to March	FY05	FY06	FY07	FY08	FY09
Total operating income	14,790	15,775	17,291	22,665	27,378
Generation, administration and other expenses	1,205	1,728	1,474	2,050	3,265
Expenditure on contract, project management and consultancy works	186	253	253	341	612
Incentive to beneficiary states	813	755	0	0	0
Employee cost	2,349	2,064	2,449	3,249	4,925
Provisions	417	221	304	212	1,259
EBITDA	9,821	10,755	12,812	16,814	17,318
Depreciation	2,499	2,718	2,911	4,444	5,175
EBIT	7,322	8,037	9,901	12,370	12,143
Interest and finance charges	3,282	2,926	2,318	4,534	5,052
Other income	2,810	2,855	3,005	3,522	5,032
Profit before tax and extra-ordinary items	6,851	7,966	10,588	11,358	12,123
Provision for taxation	734	637	1,355	1,215	1,157
Core profit	6,117	7,329	9,233	10,143	10,965
Profit after tax	6,117	7,329	9,233	10,143	10,965
Extraordinary items	0	0	0	461	333
Profit after tax after extra-ordinary items	6,117	7,329	9,233	10,604	11,298
Shares outstanding (mn)	9,426	10,215	11,198	11,182	11,182
EPS (INR) basic	0.65	0.7	0.8	0.9	1.0
Diluted shares (mn)	9,426	10,215	11,198	11,182	11,182
EPS (INR) diluted	0.65	0.7	0.8	0.9	1.0
Dividend payout (%)	22.9	30.4	30.1	28.3	28.8

**Balance sheet****(INR mn)**

As on 31st March	FY05	FY06	FY07	FY08	FY09
Gross block	108,472	127,645	129,533	206,228	214,283
Less: Depreciation	22,436	25,298	28,517	32,648	38,150
Net block	86,036	102,347	101,016	173,580	176,133
Capital work in progress	87,178	87,743	112,663	61,722	93,258
Construction, stores and advances	7,701	7,790	8,564	10,770	10,969
Net fixed assets (A)	180,915	197,880	222,243	246,071	280,360
Investments (B)	35,492	35,792	33,228	30,492	27,936
Interest accrued on investments	1,644	1,339	1,035	919	810
Inventories	521	513	450	371	372
Contract work-in-progress	231	364	422	512	196
Sundry debtors	5,574	2,286	2,906	3,311	2,947
Cash and bank balances	3,117	5,422	4,669	18,413	19,000
Other current assets	1,703	1,292	1,602	2,140	3,937
Loans and advances	3,888	4,052	4,453	7,760	12,649
Current assets, loans and advances ( C )	16,677	15,267	15,537	33,425	39,909
Secured loans	40,043	39,735	46,228	70,035	82,124
Unsecured loans	30,175	31,932	29,092	29,528	40,217
Advance against depreciation	10,000	10,495	12,460	13,033	13,295
Current liabilities and provisions	12,230	14,972	19,175	26,236	33,852
Less: Liabilities and Provisions (D)	92,448	97,134	106,955	138,832	169,487
Share capital (E)	94,256	102,153	111,982	111,825	111,825
Share capital deposit (F)	1,589	204	0	0	0
GOI fund adjustable to equity (G)	3,338	3,255	88	0	0
Reserve and surplus (H)	41,453	46,239	52,241	59,335	66,917
Misc. expenditure (to the extent not written-off)	-	246	258	3	23
<b>Net worth</b>	<b>140,636</b>	<b>151,605</b>	<b>164,053</b>	<b>171,157</b>	<b>178,718</b>
Book value	15	15	15	15	16

## Financial statements (Consolidated)

<b>Income statement</b>					<b>(INR mn)</b>
Year to March	FY05	FY06	FY07	FY08	FY09
Total operating income	17,078	20,544	22,692	29,309	34,937
Generation, administration and other expenses	1,411	1,889	1,689	2,326	3,638
Expenditure on contract, project management and consultancy works	216	253	253	341	612
Incentive to beneficiary states	813	755	0	0	0
Employee cost	2,343	2,161	2,589	3,480	5,390
Provisions	389	225	304	212	1,259
EBITDA	11,907	15,261	17,859	22,950	24,038
Depreciation	2,949	3,441	3,687	5,607	6,563
EBIT	8,958	11,819	14,172	17,343	17,476
Interest and finance charges	3,968	4,128	3,615	6,377	7,760
Other income	2,817	2,985	3,107	3,908	5,578
Profit before tax and extra-ordinary items	7,807	10,676	13,664	14,874	15,294
Provision for taxation	772	759	1,972	1,685	1,678
Core profit	7,034	9,917	11,692	13,189	13,616
Profit after tax	7,034	9,917	11,692	13,189	13,616
Extraordinary items	0	0	0	461	333
Profit after tax after extra-ordinary items	7,034	9,917	11,692	13,650	13,948
Minority interest	457	1,271	1,201	1,580	1,507
Profit after tax after extra-ordinary items and minority interest	6,577	8,646	10,491	12,070	12,442
Shares outstanding (mn)	9,426	10,215	11,198	11,182	11,182
EPS (INR) basic	0.7	0.8	0.9	1.1	1.1
Diluted shares (mn)	9,426	10,215	11,198	11,182	11,182
EPS (INR) diluted	0.7	0.8	0.9	1.1	1.1
Dividend payout (%)	21	26	26	25	26



**Balance sheet****(INR mn)**

As on 31st March	FY05	FY06	FY07	FY08	FY09
Gross block	141,756	167,363	170,370	272,079	281,151
Less: Depreciation	23,121	26,936	31,227	36,825	44,089
Net block	118,635	140,427	139,143	235,254	237,062
Capital work in progress	97,324	100,763	132,700	61,858	93,317
Construction, stores and advances	9,959	8,371	8,617	10,774	10,970
Net Fixed Aseets (A)	225,918	249,560	280,460	307,885	341,348
Investments (B)	25,768	25,768	23,203	20,468	17,912
Interest accrued on investments	1,644	1,339	1,035	919	810
Inventories	517	525	471	397	415
Contract work-in-progress	231	364	422	512	196
Sundry debtors	6,498	5,754	8,926	8,865	7,636
Cash and bank balances	9,736	8,928	8,163	23,459	26,061
Other current assets	1,130	1,572	1,844	2,351	4,303
Loans and advances	4,094	4,228	4,635	7,897	12,853
Current assets, loans and advances ( C )	23,850	22,708	25,497	44,399	52,274
Secured loans	55,043	61,382	75,626	99,027	107,235
Unsecured loans	36,418	33,432	29,092	29,528	42,075
Minority interest	10,065	11,302	12,399	13,645	14,667
Advance against depreciation	10,000	10,495	12,460	13,188	14,245
Current liabilities and provisions	14,725	17,099	21,652	30,528	37,406
Less: Liabilities and Provisions (D)	126,250	133,710	151,229	185,915	215,628
Share capital (E)	94,256	102,153	111,982	111,825	111,825
Share capital deposit (F)	1,589	204	0	0	0
GOI fund adjustable to equity (G)	3,338	3,255	88	0	0
Reserve and surplus (H)	41,830	47,833	55,026	63,477	72,124
Miscellaneous expenditure (to the extent not written-off)	(0)	246	258	3	23
<b>Net worth</b>	<b>141,013</b>	<b>153,199</b>	<b>166,839</b>	<b>175,298</b>	<b>183,925</b>
Book value	15	15	15	16	16

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### Coverage group(s) of stocks by primary analyst(s): Power

Adani Enterprises, CESC, GIPCL, GVK Power, GMR Infrastructure, Lanco Infrastructure, NTPC, Power Grid Corporation, Reliance Infrastructure and Tata Power

#### Recent Research

Date	Company	Title	Price (INR)	Recos
03-Aug-09	<b>NTPC</b>	Earnings in line; <i>Result Update</i>	216	Reduce
31-Jul-09	<b>Reliance Infra.</b>	Steady performance; <i>Result Update</i>	1,205	Buy
31-Jul-09	<b>Tata Power</b>	All-round improvement; <i>Result Update</i>	1,301	Buy
30-Jul-09	<b>Lanco Infratech</b>	Earnings lower than Estimates; <i>Result Update</i>	420	Hold

#### Distribution of Ratings / Market Cap

##### Edelweiss Research Coverage Universe

	Buy	Hold	Reduce	Total
Rating Distribution*	53	43	29	128

\* 3 stocks under review

	> 50bn	Between 10bn and 50 bn	< 10bn
Market Cap (INR)	72	41	15

#### Rating Interpretation

Rating	Expected to
<b>Buy</b>	appreciate more than 15% over a 12-month period
<b>Hold</b>	appreciate up to 15% over a 12-month period
<b>Reduce</b>	depreciate more than 5% over a 12-month period

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