

## Differential tariff – small step in right direction

- Draft Tariff amendments to result in 6-7% upside to earnings...** While we were expecting much changes after “Task Force report on Peak and Off-peak Tariffs” in May’10, the draft notification on amendments in tariff regulations doesn’t capture all recommendations of the task force, leaving 6-7% upside in the hands of hydro-generators like NHPC. Based on FY10 data, we believe the proposed change in incentive calculations for peaking power will lead to ₹1.1-1.2bn upside to PBT (Exhibit 4).
- ...but NHPC has demanded additional sops:** NHPC has been demanding additional returns for hydro projects (Exhibit 3) as risks are not entirely covered under current tariff policy. Few benefits, viz., a) RoE on CWIP, b) additional 2% RoE for hydro projects, c) differential peak tariffs, among other demands like merchant sales, REC benefits, etc. Despite that the current draft amendment proposal considers only partially increasing incentives by 50% and other demands, such as ROE and CWIP return, have been ignored.
- Recurring RoE on projects c.19%, reported RoE continues to be lower at c.6%:** NHPC reported c.23% RoE on core equity of ₹66bn due to one-time income of ₹6.9bn for PY tariff adjustments for Dulhasti, Teesta-V and Chamara-II. Recurring RoE on projects is at c.19% and recurring reported RoE continues to be depressed at 6% (actual reported RoE at 9%) as c.30% equity is invested in projects and c.30% equity is invested in CWIP (Exhibit 2). Going forward in FY12-13E, we expect RoEs to improve to 9-10% as much under construction capacity comes on line including Subansiri lower (c.50% of CWIP).
- Maintain Buy with target of ₹36:** While the proposed draft tariff amendment bring limited upside for the hydro sector, we feel that it’s a move in right direction with few other sops possible (Exhibit 3). We have tweaked estimates by 2-5% based on annual report updates. We maintain target price of ₹36 for Mar’11. While stock looks cheap at 1.5x FY12 P/BV, but implied 2.5x P/BV on core equity of ₹77bn and core RoE of c.19% is comparable. Conversion of CWIP in FY13 will increase our TP by ₹5. BUY.
- Catalysts to stock will be strong generation growth due to better rainfalls and higher incentives due to change in regulations/ higher generation and; c.₹4bn and c.₹30bn equity capitalization in FY11E and FY12E respectively.**

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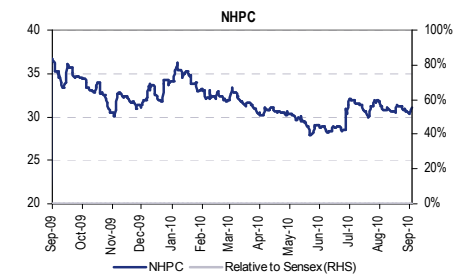
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### Key Data

Market cap (bn)	₹ 381.9 / US\$ 8.2
Shares in issue (mn)	12,300.7
Diluted share (mn)	12,300.7
3-mon avg daily val (mn)	₹ 270.0 / US\$ 5.8
52-week range	36.7 / 27.6
Sensex/Nifty	19,208/5,760
₹/US\$	46.4

### Daily Performance



%	1M	3M	12M
Absolute	1.1	9.7	-7.0
Relative*	-4.3	-3.8	-25.5

\* To the BSE Sensex

### Shareholding Pattern (%)

	1Q11	1Q10
Promoters	86.4	100.0
FII	1.3	0.0
DII	2.9	0.0
Public / others	9.4	0.0

### Exhibit 1: Financial Summary

Y/E March	FY08A	FY09A	FY10A	FY11E	FY12E
Net sales	28,918	35,335	52,296	49,875	53,055
Sales growth (%)		22.2	48.0	-4.6	6.4
EBITDA	22,950	24,222	41,301	38,972	41,189
EBITDA (%)	78.3	67.6	79.0	76.2	75.7
Adjusted net profit	11,609	10,792	15,944	18,734	19,373
EPS (₹)	1.0	1.0	1.3	1.5	1.6
EPS growth (%)		-7.0	34.3	17.5	3.4
ROCE (%)	4.5	3.9	4.8	4.9	4.6
ROE (%)	5.8	5.2	6.7	6.9	6.8
PE (x)	29.9	32.2	24.0	20.4	19.7
Price/Book value (x)	1.7	1.6	1.4	1.4	1.3
EV/EBITDA (x)	18.8	18.7	10.9	11.1	11.4

Source: Company data, JM Financial. Note: Valuations as of 13 / 09 / 2010

 JM Financial Research is also available on:  
 Bloomberg - JMFR <GO>, Thomson Publisher & Reuters.

Please see important disclosure at the end of the report

- **Equity invested in CWIP up 17% at ~₹43bn:** In FY10, NHPC's equity deployment in CWIP increased 16.9% to ₹42.6bn, thereby lowering reported RoEs. Equity investment in power stations remained constant at ₹66.4bn as no new project was commercialized during FY10. But returns on investment in power stations increased as final tariffs were approved for Dulhasti, Teesta-V and Chamera-II power stations.

### Exhibit 2. Net Worth Deployment and return profile (₹ bn)

	NW	Returns	Avg return	JMF Comments
- Power Stations	66	15.3	23%	Adjusted return of 19% as ₹2.9bn was PY income on tariff revisions
- JVs	10	0.2	2%	Dividend income
- CWIP	60	0.0	0%	-
- SEB/LTA bonds	17	1.6	10%	7.5% tax free return
- Bank balance	41	1.2	3%	Interest income as per DPE guidelines
- Others, inc FD	21	2.5	12%	Bank FDs from IPO proceeds
- Others	12	0.0	0%	-
<b>Total Networth</b>	<b>228</b>	<b>20.9</b>	<b>9.2%</b>	<b>Reported RoE</b>

Source: Company, JM Financial

- **NHPC has demanded additional upsides:** NHPC has been demanding additional returns for hydro projects (Exhibit 3) as risks are not entirely covered under current tariff policy. Few benefits, viz., a) RoE on CWIP, b) additional 2% RoE for hydro projects, c) differential peak tariffs, among other demands like merchant sales, REC benefits, etc. Despite that the current draft amendment proposal considers only partially increasing incentives by ~50% and other demands, such as ROE and peaking power, have been ignored.

### Exhibit 3. Suggestions made by NHPC to MoP/CERC

Suggestions	Explanation	JMF Comments
Additional RoE of 2% to Hydro Plants	Additional RoE for Hydro, compensating them for taking up additional risk owing to difficult execution in adverse terrains and geographical conditions.	<b>Unlikely</b> Company is hopeful, but not considered by CERC in draft amendments.
Differential Peak Tariff	As most hydro plants are peak power generators	<b>Likely</b> Incentive structure tweaked with 0-50% higher incentives depending on PAF vs task force recommendation of 75% higher incentive
RoE on CWIP	Significant equity is blocked in projects for long gestation periods without any returns	<b>Likely</b> Not considered in draft amendments
Hydrological Risk	Hydrological risk should not be with the generator as was provided in the previous 2004-09 tariff regulations	<b>Likely</b> Not considered in draft amendments
Long-Term loan	RBI to consider special incentive for Banks/FIs for giving loans for 15-20 years for hydro projects	NA
Ex-PPA Sales	Central power generators to be allowed to sell 15% of capacity outside long term PPA	Unlikely for existing/ Under construction projects; policy change for Gol projects with 40% merchant sale possible for future projects
Incentive for timely completion of Projects	Additional 0.5% RoE incentive to be available to generator where overrun is not due to generator and CERC has approved time/cost overrun	Unlikely Disallowed in draft amendments
RECs	All hydro power to be allowed for REC, irrespective of plant size	Unlikely Only for small hydro
Tariff to include actual O&M	Tariff to be allowed using actual O&M expenses, including security expenses	Unlikely
Tax Holidays	Existing tax holidays for 10 years should be extended to 15 years	NA

Source: Company, JM Financial

## Draft tariff amendments – marginal gains for hydro

CERC released draft tariff amendments for control period 2009-14 and has invited comments from the stakeholders. Key changes proposed-

- **Generating stations differentiated as peak and off-peak:** Thermal power projects have been segregated as peak and off-peak stations with RLDC specifying 6 peak hours per day for each month (2hrs morning and 4hrs in evening). Hydro projects have been kept out of purview of peaking power.
- **Included open-cycle gas and pump-storage hydro projects for peaking power demand:** CERC has introduced tariff calculation mechanism for open-cycle gas and pump-storage hydro projects for peaking power requirements. None of the listed entities such as NHPC, SJVN, JPVL, etc will be benefitted.
- **Tax incidence pass-through in respective year:** CERC admitted 2008-09 tax rates for tariff calculation in previous tariff orders, while the truing-up was supposed to be done after control period (Mar'14). It has now proposed to pass-through increase in taxes in the respective year, thereby improving cash-flow for utilities as MAT rates have doubled in last 2 years.
- **~50% higher incentives for hydro:** While CERC has kept hydro out for peaking power tariffs, but it has improved incentive structure for hydro projects with ~50% higher incentives. Additional benefit for NHPC will be c.₹1.1-1.2bn on FY10 PAF and generation (Exhibit 4). The new incentive structure embedded in capacity charge will be calculated as below -

	Draft amendment	Earlier tariff policy 2009-14
If PAF>NAPAF	$AFC \times 0.5 \times NDM / NDY \times (1 + 1.5 \times (PAFM - NAPAF) / NAPAF)$	$AFC \times 0.5 \times NDM / NDY \times PAFM / NAPAF$
If PAF<NAPAF	$AFC \times 0.5 \times NDM / NDY \times PAFM / NAPAF$	$AFC \times 0.5 \times NDM / NDY \times PAFM / NAPAF$

Exhibit 4. Impact from proposed draft tariff amendment											(₹ mn)	
Project	Annual Design Energy	Free Energy + Aux Consumption	Actual Generation	Target PAF	Actual PAF	NAPA F	AFC	Capacity charge (₹/kWh)		Energy Charge (₹/kWh)	Increase in tariff (₹/kWh)	Increase in PBT/Sales
			FY10	FY10	FY10	FY10	FY10	Earlier	New	Earlier/ New		
Baira Siul	779	12.7%	623	87	91	85	944	0.74	0.77	0.7	0.02	16
Loktak	448	12.7%	381	87	73	85	980	1.07	1.07	0.8	-	0
Salal	3,082	13.0%	3,024	62	60	60	2,559	0.47	0.47	0.5	-	0
Tanakpur	452	13.0%	471	57	63	55	799	1.16	1.24	0.8	0.07	35
Chamera I	1,665	13.2%	2,065	92	98	90	2,723	1.02	1.06	0.8	0.04	83
Uri I	2,587	13.2%	2,703	62	73	60	4,774	1.28	1.39	0.8	0.11	299
Rangit	339	13.0%	329	87	92	85	965	1.77	1.83	0.8	0.07	22
Chamera II	1,500	13.2%	1,369	92	98	90	3,662	1.53	1.59	0.8	0.06	83
Dhauliganga I	1,135	13.2%	1,134	87	93	85	2,748	1.52	1.58	0.8	0.06	72
Dulhasti	1,907	13.2%	2,264	92	97	90	10,221	3.32	3.43	0.8	0.11	260
Teesta V	2,573	13.2%	2,598	87	94	85	4,938	1.22	1.28	0.8	0.06	152
Indira Sagar	1,979	0.7%	1,979	-	89	85	6,354	1.70	1.74	0.8	0.04	85
Omkareshwar	1,166	0.7%	953	-	100	90	3,879	1.86	1.95	0.8	0.09	87
<b>Existing</b>					<b>84.1</b>	<b>79.9</b>	<b>45,544</b>				<b>0.06</b>	<b>1,194</b>

Source: Company, JM Financial

- **CWIP up 36.5% at ₹128.4bn ; to go down in FY11E as c.1.4GW comes online:** NHPC's CWIP increased 36.5% to ₹128.4bn in FY10, as no new capacities were commercialized/ capitalized. The lone commissioned project Sewa-II (120MW) was commercialized in June'2010. In FY11, we expect Teesta-III (132MW) to get commercialized, apart from already commissioned Sewa-II (see Exhibit below) and hence addition of ₹25bn to the gross block. We expect major capacity addition to happen in FY12E as 1,492MW of capacity from plants such as Uri-II, Chamera-III, Teesta-IV, Parbati-II&III and Nimoo Bazgo come on stream.

#### Exhibit 5. Project COD schedule

Year	Project	MW	Original COD	COD per CEA May'10 report	Delays from original schedule (M)	JMFe COD	Delays over CEA report (M)	Total delay (M)
FY2010-11	Teesta Low Dam III	132	Feb-11	Feb-11	-	Apr-11	2.0	2.0
FY2011-12	Uri II	240	Feb-11	Aug-11	7.0	Aug-11	-	7.0
	Chamera III	231	Aug-10	May-11	10.0	May-11	1.0	11.0
	Teesta Low Dam IV	160	Aug-11	Oct-11	3.0	Dec-11	4.0	7.0
	Nimoo Bazgo	45	Aug-10	Jul-11	12.0	Sep-11	4.0	16.0
	Parbati III	520	Nov-10	Oct-11	12.0	Dec-11	3.0	15.0
	Chutak	44	Feb-11	Aug-11	7.0	Oct-11	3.0	10.0
FY2012-13	Parbati II	800	Mar-13	Mar-13	-	Mar-13	-	-
	Subansiri Lower	2,000	Dec-12	Mar-13	3.0	Mar-13	1.0	4.0
FY2015-16	Kishanganga	330	Jan-16	Jan-16	-	Jan-16	-	-

Source: Company, CEA, JM Financial

### Other key highlights from Annual Report

- **Annual generation +5%, PAF beats 'Very Good' target:** NHPC, in FY10, registered 5% growth in its annual generation at 20BUs as against 19.1BUs in FY09. Excluding NHDC, generation grew 1.7% at ~17BUs and surpassed 'very good' target of 16.5BUs. Generation improved as overall plant availability improved over last year and at 84.1% exceeded 77.8% 'very good' target by a big margin, despite a weak monsoon (Exhibit 6).
- **ASP up 57% as new tariff norms kick in:** For FY10, NHPC reported strong tariff growth of 57% at ₹2.91/kWh as against ₹1.86/kWh in FY09. The tariffs improved primarily for new tariff regulations 2009-14 and also because tariff for three power stations including Dulhasti HEP were finalized as against provisional tariff. Adjusting for previous year items, the ASP improved 31% at ₹2.44/kWh. Sales realization also improved to 99.7% as against 97% in FY09.
- **NHDC net down 30.7% at ₹2.1bn; sales up 18.5% YoY:** In FY10, NHDC's net declined 31%, despite 18.5% growth in sales. Sales improved as new tariff regulations came into force but profits were also impacted due to new tariff regime and hence higher depreciation charge. Generation improved 29% YoY to 3.1BUs as Omkareshwar registered record high PAF of ~100%.
- **₹708mn costs at Dhauliganga disapproved:** During FY10, a provision of ₹708.4mn has been created towards Cost of Dhauliganga Power Station, which has been recommended for disallowance by Standing Committee on Time & Cost Overrun as per Public Investment Board (PIB) note.

- **Diversification in thermal, wind generation:** NHDC will develop 1,320MW (2x660MW) super-critical technology based Reva Thermal Power Project (RTPP) in District Khandwa of Madhya Pradesh. A site has also been allotted at Kukru (Betul) for 100MW Wind power.

Exhibit 6. Adjusted sales comparison for NHPC			(₹ mn)
Particulars	FY09	FY10	Comments
MW installed	3,614	3,614	
MU Generated	16,583	16,960	
MU Sold	14,588	14,842	
Average Realization	1.85	2.92	Increase on account of tariff approvals
Sales (Net)	26,491	42,138	
Contracts and Consultancy Income	489	1,131	
<b>TOTAL INCOME</b>	<b>26,981</b>	<b>43,269</b>	
Less: AAD	262	1,080	
Net sales	26,719	42,189	
Less:			
a) Earlier year sales (net of AAD)	-170	7,063	On account of tariff approvals for Dulhasti
b) UI charges	1,560	1,104	
c) FERV	1,191	657	
<b>Adjusted sales of Energy</b>	<b>24,138</b>	<b>33,365</b>	

Source: Company, JM Financial

Exhibit 7. Change in estimates				(₹ mn)			
	Actual	Revised estimates		Old estimates		% change	
	FY10	FY11E	FY12E	FY11E	FY12E	FY11E	FY12E
Generation (MU)	20,015	20,923	24,000	20,923	24,000	0.0	0.0
Net Sales	52,273	51,119	54,423	51,445	54,852	-0.6	-0.8
EBITDA	41,301	38,972	41,189	39,660	42,016	-1.7	-2.0
Net Profits	21,767	18,734	19,373	19,863	19,722	-5.7	-1.8
PAT (Adjusted)	15,944	18,734	19,373	19,863	19,722	-5.7	-1.8
EPS (₹)	1.8	1.5	1.6	1.6	1.6	-5.7	-1.8
BVPS (₹)	21.7	22.7	23.8	23.2	24.8	-2.2	-4.2

Source: JM Financial

Exhibit 8. Implied P/BV calculation		(₹ bn)
Market Cap		383
Less: Cash		62
Less: GoI bonds		17
Less: 1.5x Equity in CWIP		108
<b>Operational Equity Value</b>		<b>196</b>
Equity in JV/projects		77
<b>Implied P/BV (FY10)</b>		<b>2.5</b>

Source: Company, JM Financial

## Financial Tables (Consolidated)

Profit & Loss					(₹ mn)
Y/E March	FY08A	FY09A	FY10A	FY11E	FY12E
<b>Net sales (Net of excise)</b>	<b>28,918</b>	<b>35,335</b>	<b>52,296</b>	<b>49,875</b>	<b>53,055</b>
Growth (%)		22.2	48.0	-4.6	6.4
Other operational income	391	489	-22	1,244	1,368
Raw material (or COGS)	0	0	0	0	0
Personnel cost	3,480	5,390	5,763	6,348	6,856
Other expenses (or SG&A)	2,878	6,212	5,210	5,799	6,378
<b>EBITDA</b>	<b>22,950</b>	<b>24,222</b>	<b>41,301</b>	<b>38,972</b>	<b>41,189</b>
EBITDA (%)	78.3	67.6	79.0	76.2	75.7
Growth (%)		5.5	70.5	-5.6	5.7
Other non-op. income	0	0	0	0	0
Depreciation and amort.	5,607	6,441	12,827	14,665	17,310
EBIT	17,343	17,782	28,474	24,307	23,878
Add: Net interest income	-2,469	-1,807	-921	868	2,094
Pre tax profit	14,874	15,975	27,553	25,174	25,972
Taxes	1,685	1,552	4,766	5,017	5,176
Add: Extraordinary items	461	0	6,976	0	0
Less: Minority interest	1,580	1,462	1,020	1,423	1,423
Reported net profit	12,070	12,961	28,743	18,734	19,373
<b>Adjusted net profit</b>	<b>11,609</b>	<b>10,792</b>	<b>15,944</b>	<b>18,734</b>	<b>19,373</b>
Margin (%)	39.6	30.1	30.5	36.6	35.6
Diluted share cap. (mn)	11,182	11,182	12,301	12,301	12,301
<b>Diluted EPS (₹)</b>	<b>1.0</b>	<b>1.0</b>	<b>1.3</b>	<b>1.5</b>	<b>1.6</b>
Growth (%)	NA	-7.0	34.3	17.5	3.4
Total Dividend + Tax	3,678	3,880	7,924	6,047	6,239

Source: Company, JM Financial

Balance Sheet					(₹ mn)
Y/E March	FY08A	FY09A	FY10A	FY11E	FY12E
Share capital	111,825	111,825	123,007	123,007	123,007
Other capital	24,963	14,245	15,398	15,398	15,398
Reserves and surplus	63,477	85,853	128,065	140,752	153,886
Networth	200,265	211,923	266,470	279,158	292,292
Total loans	128,555	149,310	163,515	181,450	199,101
Minority interest	13,017	14,944	15,895	16,891	17,887
<b>Sources of funds</b>	<b>341,837</b>	<b>376,177</b>	<b>445,881</b>	<b>477,499</b>	<b>509,280</b>
Intangible assets	0	0	0	0	0
Fixed assets	272,079	281,469	280,117	305,050	385,649
Less: Deprn. and amort.	36,825	43,146	57,101	71,766	89,076
Net block	235,254	238,323	223,016	233,284	296,572
Capital WIP	72,632	105,050	140,620	131,213	122,037
Investments	20,468	17,904	33,455	30,940	28,400
Def tax assets/- liability	0	0	-2,521	-2,521	-2,521
Current assets	44,670	56,565	98,658	135,783	120,959
Inventories	428	415	483	619	678
Sundry debtors	8,865	7,636	15,338	15,031	15,989
Cash & bank balances	23,459	26,069	61,895	99,062	82,968
Other current assets	4,022	5,308	7,992	6,109	6,468
Loans & advances	7,897	17,137	12,949	14,963	14,855
Current liabilities & prov.	30,528	41,689	47,347	51,199	56,167
Current liabilities	30,528	41,689	47,347	51,199	56,167
Provisions and others	0	0	0	0	0
Net current assets	14,142	14,876	51,311	84,584	64,792
Others (net)	-659	24	0	0	0
<b>Application of funds</b>	<b>341,837</b>	<b>376,177</b>	<b>445,881</b>	<b>477,499</b>	<b>509,280</b>

Source: Company, JM Financial

Cash flow statement					(₹ mn)
Y/E March	FY08A	FY09A	FY10A	FY11E	FY12E
Reported net profit	12,070	12,961	28,743	18,734	19,373
Depreciation and amort.	5,598	6,321	13,955	14,665	17,310
-Inc/dec in working cap.	8,981	12,402	-2,112	4,024	3,951
Others	1,154	1,927	951	996	996
<b>Cash from operations (a)</b>	<b>27,803</b>	<b>33,612</b>	<b>41,537</b>	<b>38,419</b>	<b>41,630</b>
-Inc/dec in investments	2,735	2,564	-15,552	2,516	2,540
Capex	-33,023	-41,809	-34,217	-15,526	-71,423
Others	-3,982	-10,526	1,503	-130	-252
<b>Cash flow from inv. (b)</b>	<b>-34,270</b>	<b>-49,771</b>	<b>-48,265</b>	<b>-13,140</b>	<b>-69,135</b>
Inc/-dec in capital	1,481	2,577	33,729	0	0
Dividend+Tax thereon	-3,678	-3,880	-7,924	-6,047	-6,239
Inc/-dec in loans	23,837	20,755	14,205	17,935	17,650
Others	122	-682	2,545	0	0
<b>Financial cash flow (c)</b>	<b>21,763</b>	<b>18,769</b>	<b>42,555</b>	<b>11,888</b>	<b>11,412</b>
Inc/-dec in cash (a+b+c)	15,296	2,610	35,826	37,167	-16,094
Opening cash balance	8,163	23,459	26,069	61,895	99,062
Closing cash balance	23,459	26,069	61,895	99,062	82,968

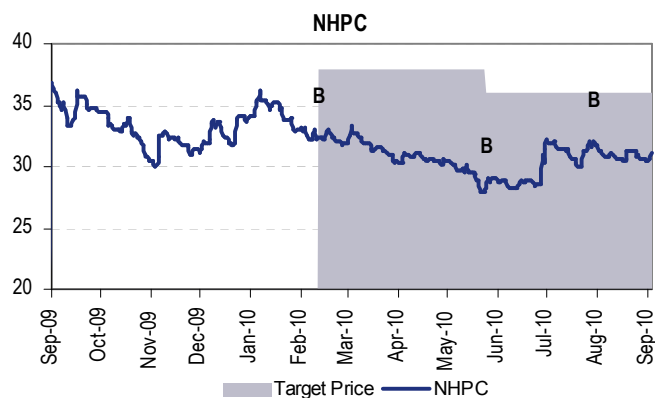
Source: Company, JM Financial

Key Ratios					
Y/E March	FY08A	FY09A	FY10A	FY11E	FY12E
BV/Share (₹)	17.9	19.0	21.7	22.7	23.8
ROCE (%)	4.5	3.9	4.8	4.9	4.6
ROE (%)	5.8	5.2	6.7	6.9	6.8
Net Debt/equity ratio (x)	0.4	0.5	0.3	0.2	0.3
<b>Valuation ratios (x)</b>					
PER	29.9	32.2	24.0	20.4	19.7
PBV	1.7	1.6	1.4	1.4	1.3
EV/EBITDA	18.8	18.7	10.9	11.1	11.4
EV/Sales	14.9	12.8	8.6	8.7	8.9
<b>Turnover ratios (no.)</b>					
Debtor days	112	79	107	110	110
Inventory days	5	4	3	5	5
Creditor days	NA	NA	NA	NA	NA

Source: Company, JM Financial

**History of earnings estimates and target price**

Date	FY11E EPS (₹)	% Chg.	FY12E EPS (₹)	% Chg.	Target Price	Target Date	% Chg.
11-Feb-10	1.5		1.9		38	Mar-11	
25-May-10	1.6	6.7	1.6	-15.8	36	Mar-11	-5.3
29-Jul-10	1.6	0.0	1.6	0.0	36	Mar-11	0.0

**Recommendation history****JM Financial Institutional Securities Private Limited**

MEMBER, BOMBAY STOCK EXCHANGE LIMITED AND NATIONAL STOCK EXCHANGE OF INDIA LIMITED

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Board: +9122 6630 3030 | Fax: +91 22 6747 1825 | Email: [jmfinancial.research@jmfinancial.in](mailto:jmfinancial.research@jmfinancial.in) | [www.jmfinancial.in](http://www.jmfinancial.in)**Analyst Certification**

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