

# NTPC (NTPC.BO)

## Upgrade to Buy – Time to Revisit the Power Behemoth

- Company Update
- Rating Change
- Target Price Change
- Estimate Change

<b>Buy</b>	<b>1</b>
<i>from Neutral</i>	
Price (11 Jan 13)	Rs152.20
Target price	Rs183.00
<i>from Rs173.00</i>	
Expected share price return	20.2%
Expected dividend yield	2.8%
<b>Expected total return</b>	<b>23.0%</b>
Market Cap	Rs1,254,960M US\$23,059M

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



**Venkatesh Balasubramaniam**  
+91-22-6631-9864  
venkatesh.balasubramaniam@citi.com

**Atul Tiwari, CFA**  
+91-22-6631-9866  
atul.tiwari@citi.com

**Vaishnavi G**  
+91-22-6631-9872  
vaishnavi.g@citi.com

- **Top India Utility Pick along with PGCIL** — We believe the stage is set for NTPC to outperform the market in CY13. We increase TP to Rs183 to factor in: (1) 0-1% EPS increase; (2) roll forward of DCF to Jun13E and P/BV on subsidiaries Jun14E.
- **Reason #1 - Significant underperformance** — NTPC underperformed the BSE Sensex by 28% in CY12 as the coal supply situation deteriorated.
- **Reason #2 - Cheap vs historic valuations** — NTPC currently trades at 12.6x P/E and 1.5x P/BV one-year forward (sub historical one standard deviation below mean). Further, on a robust metric like P/CFO also it seems cheap.
- **Reason #3 – Robust regulatory equity growth** — Over FY12-14E as commercial capacity grows at a CAGR of 9%, it would drive regulatory equity block growth of 15% CAGR which in turn would support EPS growth and RoEs.
- **Reason #4 - RoE decline may have bottomed out** — NTPC's RoEs were 12.4% in FY12, an eight-year low. However, with Coal India production improving things have started looking up: (1) 3 quarters of YoY domestic coal supply growth (2) 5 quarters of YoY generation growth and (3) PLF improvement in 3QFY13.
- **Reasons #5 - Upside risk to RoE** – We have not factored in improvements in the coal situation in our estimates. Improvements could push RoEs to 14% levels.
- **Prefer NTPC/ PGCIL over India industrials - NTPC vs PGCIL, a tough call** — As (1) industrial stocks outperformed in CY12 and CY13 starting valuations do not look cheap and (2) NTPC and PGCIL have underperformed in CY12. The NTPC vs PGCIL call is tougher. Though PGCIL will likely grow faster, have higher RoEs and has a less risky business model, PGCIL stock has outperformed NTPC stock for four years, and is relatively more over-owned, PGCIL has higher leverage and can improve RoEs to lesser quantum (given the high base effect) than NTPC in case there is a significant improvement in the coal supply situation.

### Statistical Abstract

Year to	Net Profit	Diluted EPS	EPS growth	P/E	P/B	ROE	Yield
31 Mar	(RsM)	(Rs)	(%)	(x)	(x)	(%)	(%)
2011A	87,236	10.58	7.3	14.4	1.8	13.4	2.5
2012A	87,711	10.64	0.5	14.3	1.7	12.4	2.6
2013E	96,265	11.67	9.8	13.0	1.6	12.7	2.8
2014E	104,798	12.71	8.9	12.0	1.5	12.8	2.9
2015E	112,012	13.58	6.9	11.2	1.4	12.6	3.0

Source: Powered by dataCentral

### See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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NTPC.BO: Fiscal year end 31-Mar						Price: Rs152.20; TP: Rs183.00; Market Cap: Rs1,254,960m; Recomm: Buy					
Profit & Loss (Rsm)	2011	2012	2013E	2014E	2015E	Valuation ratios	2011	2012	2013E	2014E	2015E
Sales revenue	549,465	615,415	660,969	778,411	860,667	PE (x)	14.4	14.3	13.0	12.0	11.2
Cost of sales	-396,590	-464,949	-489,062	-579,100	-642,644	PB (x)	1.8	1.7	1.6	1.5	1.4
Gross profit	152,875	150,467	171,907	199,311	218,023	EV/EBITDA (x)	10.6	11.1	10.4	9.2	8.6
Gross Margin (%)	27.8	24.4	26.0	25.6	25.3	FCF yield (%)	-1.6	-2.8	0.7	0.7	0.9
<b>EBITDA (Adj)</b>	<b>131,194</b>	<b>132,268</b>	<b>146,942</b>	<b>169,895</b>	<b>185,424</b>	Dividend yield (%)	2.5	2.6	2.8	2.9	3.0
EBITDA Margin (Adj) (%)	23.9	21.5	22.2	21.8	21.5	Payout ratio (%)	36	38	36	35	34
Depreciation	-24,857	-27,917	-31,353	-36,418	-41,125	ROE (%)	14.0	13.1	12.7	12.8	12.6
Amortisation	0	0	0	0	0	<b>Cashflow (Rsm)</b>	<b>2011</b>	<b>2012</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>
<b>EBIT (Adj)</b>	<b>106,337</b>	<b>104,351</b>	<b>115,589</b>	<b>133,478</b>	<b>144,298</b>	EBITDA	131,194	132,268	146,942	169,895	185,424
EBIT Margin (Adj) (%)	19.4	17.0	17.5	17.1	16.8	Working capital	-32,187	-10,097	-6,769	-18,824	-12,659
Net interest	-14,210	-17,116	-16,027	-20,145	-21,275	Other	-15,298	-5,622	-19,324	-28,680	-32,286
Associates	0	0	0	0	0	<b>Operating cashflow</b>	<b>83,709</b>	<b>116,549</b>	<b>120,848</b>	<b>122,391</b>	<b>140,478</b>
Non-op/Except	24,608	32,892	32,044	29,904	30,088	Capex	-103,514	-151,466	-112,410	-113,801	-128,966
<b>Pre-tax profit</b>	<b>116,736</b>	<b>120,126</b>	<b>131,606</b>	<b>143,236</b>	<b>153,111</b>	Net acq/disposals	0	0	0	0	0
Tax	-29,500	-32,415	-35,341	-38,438	-41,099	Other	19,634	1,861	7,672	4,296	9,517
Extraord./Min.Int./Pref.div.	3,790	4,526	0	0	0	<b>Investing cashflow</b>	<b>-83,880</b>	<b>-149,605</b>	<b>-104,738</b>	<b>-109,505</b>	<b>-119,450</b>
<b>Reported net profit</b>	<b>91,026</b>	<b>92,237</b>	<b>96,265</b>	<b>104,798</b>	<b>112,012</b>	Dividends paid	-36,480	-38,261	-40,174	-42,087	-44,000
Net Margin (%)	16.6	15.0	14.6	13.5	13.0	<b>Financing cashflow</b>	<b>17,428</b>	<b>32,665</b>	<b>-11,766</b>	<b>-15,546</b>	<b>-9,498</b>
Core NPAT	87,236	87,711	96,265	104,798	112,012	<b>Net change in cash</b>	<b>17,258</b>	<b>-391</b>	<b>4,344</b>	<b>-2,660</b>	<b>11,531</b>
<b>Per share data</b>	<b>2011</b>	<b>2012</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>Free cashflow to s/holders</b>	<b>-19,805</b>	<b>-34,917</b>	<b>8,438</b>	<b>8,590</b>	<b>11,512</b>
Reported EPS (Rs)	11.04	11.19	11.67	12.71	13.58						
Core EPS (Rs)	10.58	10.64	11.67	12.71	13.58						
DPS (Rs)	3.80	4.00	4.20	4.40	4.60						
CFPS (Rs)	10.15	14.13	14.66	14.84	17.04						
FCFPS (Rs)	-2.40	-4.23	1.02	1.04	1.40						
BVPS (Rs)	82.34	88.89	95.69	103.29	111.54						
Wtd avg ord shares (m)	8,245	8,245	8,245	8,245	8,245						
Wtd avg diluted shares (m)	8,245	8,245	8,245	8,245	8,245						
<b>Growth rates</b>	<b>2011</b>	<b>2012</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>						
Sales revenue (%)	18.4	12.0	7.4	17.8	10.6						
EBIT (Adj) (%)	17.3	-1.9	10.8	15.5	8.1						
Core NPAT (%)	7.3	0.5	9.8	8.9	6.9						
Core EPS (%)	7.3	0.5	9.8	8.9	6.9						
<b>Balance Sheet (Rsm)</b>	<b>2011</b>	<b>2012</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>						
Cash & cash equiv.	161,853	161,461	165,805	163,145	174,676						
Accounts receivables	79,635	114,486	122,964	144,929	160,292						
Inventory	36,391	37,029	39,751	46,838	51,906						
Net fixed & other tangibles	747,313	870,862	951,919	1,029,303	1,117,144						
Goodwill & intangibles	0	0	0	0	0						
Financial & other assets	232,197	224,540	217,354	213,058	203,541						
<b>Total assets</b>	<b>1,257,389</b>	<b>1,408,378</b>	<b>1,497,794</b>	<b>1,597,273</b>	<b>1,707,559</b>						
Accounts payable	40,880	44,681	47,988	56,515	62,487						
Short-term debt	0	0	0	0	0						
Long-term debt	431,877	502,789	531,197	557,738	592,241						
Provisions & other liab	105,709	127,996	129,606	131,307	133,107						
<b>Total liabilities</b>	<b>578,466</b>	<b>675,466</b>	<b>708,791</b>	<b>745,560</b>	<b>787,835</b>						
Shareholders' equity	678,923	732,912	789,002	851,713	919,725						
Minority interests	0	0	0	0	0						
<b>Total equity</b>	<b>678,923</b>	<b>732,912</b>	<b>789,002</b>	<b>851,713</b>	<b>919,725</b>						
<b>Net debt</b>	<b>270,024</b>	<b>341,328</b>	<b>365,392</b>	<b>394,593</b>	<b>417,565</b>						
Net debt to equity (%)	39.8	46.6	46.3	46.3	45.4						

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For definitions of the items in this table, please click [here](#).

## Upgrade to Buy – Target Price Rs183

*It is ~ 5 years since the R-Power IPO, and in the interim period competing private IPPs/ investors have questioned NTPC's ability to compete with private IPPs given the company did not win any competitive UMPP bids. It is now fairly well established that NTPC saw the impending inflationary risks of fuel price and capital costs and chose to make reasonable bids. While NTPC continues to work on adding 14GW of capacity in the XIth Plan (based on the assured RoE model), most private IPPs are making a beeline with CERC pleading for tariff hikes in PPAs, which do not allow such increases post the bid.*

We upgrade NTPC to Buy as we believe the stage is set for the stock to outperform the market in CY13. We increase target price to Rs183 to factor in: (1) 0-1% EPS increase; (2) roll forward of DCF to Jun13E and (3) roll forward of P/BV on subsidiaries Jun14E.

- **Reason #1 - Significant underperformance** — NTPC underperformed the BSE Sensex by 28% in CY12 as the coal supply situation deteriorated.
- **Reason #2 - Cheap vs historic valuations** — NTPC currently trades at 12.6x P/E and 1.5x P/BV one-year forward (sub historical 1 standard deviation below mean). Further, on a robust metric like P/CFO it also seems cheap.
- **Reason #3 – Robust regulatory equity growth** — Over FY12-14E as commercial capacity grows at a CAGR of 9%, it would drive regulatory equity block growth of 15% CAGR which in turn would support EPS growth and RoEs.
- **Reason #4 - RoE decline may have bottomed out** — NTPC's RoEs were 12.4% in FY12, the lowest in the last eight years. However, with Coal India production improving things have started looking up: (1) 3 quarters of YoY domestic coal supply growth, (2) 5 quarters of YoY generation growth and (3) PLF improvement in 3QFY13.
- **Reasons #5 - Upside risk to RoE** – We have not factored in improvements in coal situation in our estimates. Improvements could push RoEs to 14% levels.

Figure 1. NTPC And PGCIL v/s BSE Sensex

	BSE	NTPC	PGCIL	NTPC v/s BSE Sensex	PGCIL v/s BSE Sensex
CY05	42%	28%	NA	-14%	
CY06	47%	22%	NA	-25%	
CY07	47%	83%	NA	36%	
CY08	-52%	-28%	-42%	25%	10%
CY09	81%	30%	32%	-51%	-49%
CY10	17%	-15%	-11%	-32%	-28%
CY11	-25%	-20%	2%	5%	26%
CY12	26%	-3%	15%	-28%	-11%

Source: Citi Research

### Target price increased to Rs183 (from Rs173 earlier)

- We increase our target price to Rs183 (Rs173) to factor in (1) 0-3% EPS increase over FY12-17E; (2) roll forward of DCF value to Jun13E (Mar12E); (3) roll forward of P/BV multiple on subsidiaries and power bonds to Jun14E.
- At our target price NTPC would trade at a P/BV of 1.8x FY14E vs our target P/BV of 2.2x for PGCIL which we believe is justified given slower growth, lower RoEs and higher risks of the generation business vs the transmission business.

Figure 2. NTPC Sum Of The Parts

Part	FY12 MW	FY17E MW	Old Rationale	New Rationale	Old	New
Core Operations	32,650	43,800	DCF as of Mar13E	DCF as of Jun13E	147	157
Subsidiaries + JVs	4,364	7,254	1.5x Mar14E P/BV	2.0x Jun14E P/BV	16	17
Power Bonds			1.2x P/BV	1.2x P/BV	10	10
<b>Value/Share</b>					<b>173</b>	<b>183</b>

Source: Citi Research estimates

### Earnings revised up

We increase EPS estimates by 0-3% over FY13E-17E to factor in: (1) trends from 1HFY13 results, (2) increase in UI charge assumptions and (3) improvements in coal PLFs in 3QFY13.

Figure 3. NTPC EPS Revision Table

	FY13E	FY14E	FY15E	FY16E	FY17E	FY18E
<b>Total Operating Income</b>						
Old	687,922	772,260	853,955	933,376	1,025,877	1,140,369
New	660,969	778,411	860,667	941,648	1,034,865	1,150,267
Change	-3.9%	0.8%	0.8%	0.9%	0.9%	0.9%
<b>Recurring PAT</b>						
Old	95,931	102,955	109,864	115,319	123,332	137,800
New	96,265	104,798	112,012	118,546	127,074	142,162
Change	0.3%	1.8%	2.0%	2.8%	3.0%	3.2%
<b>EPS</b>						
Old	11.63	12.49	13.32	13.99	14.96	16.71
New	11.67	12.71	13.58	14.38	15.41	17.24
Change	0.3%	1.8%	2.0%	2.8%	3.0%	3.2%
<b>RoE</b>						
Old	12.6%	12.6%	12.4%	12.1%	12.1%	12.5%
New	12.7%	12.8%	12.6%	12.4%	12.3%	12.7%
<i>bps</i>	4	21	20	26	25	24
<b>BV</b>						
Old	95.6	103.0	111.0	119.4	128.6	139.3
New	95.7	103.3	111.5	120.4	130.0	141.2
Change	0.0%	0.3%	0.5%	0.8%	1.1%	1.4%

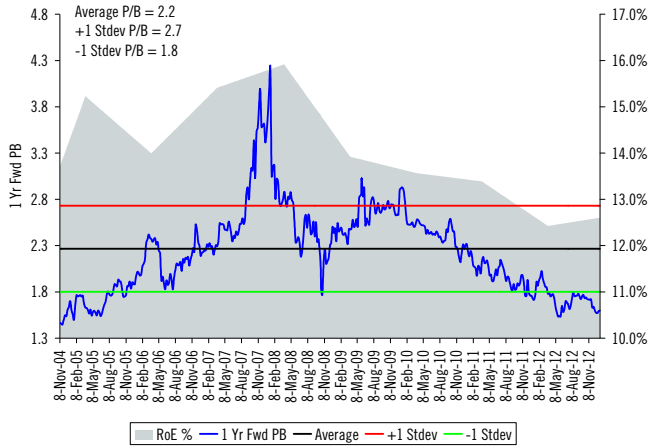
Source: Citi Research estimates

Figure 4. NTPC EPS – Citi vs Consensus

	FY13E	FY14E	FY15E
<b>EPS</b>			
Citi	11.67	12.71	13.58
Consensus	12.07	13.20	14.08
Difference	-3.3%	-3.7%	-3.5%
<b>BV</b>			
Citi	95.7	103.3	111.5
Consensus	96.5	104.1	112.5
Difference	-0.9%	-0.7%	-0.9%
<b>RoE</b>			
Citi	12.7%	12.8%	12.6%
Consensus	13.0%	13.1%	13.0%
Difference	-0.4%	-0.3%	-0.3%

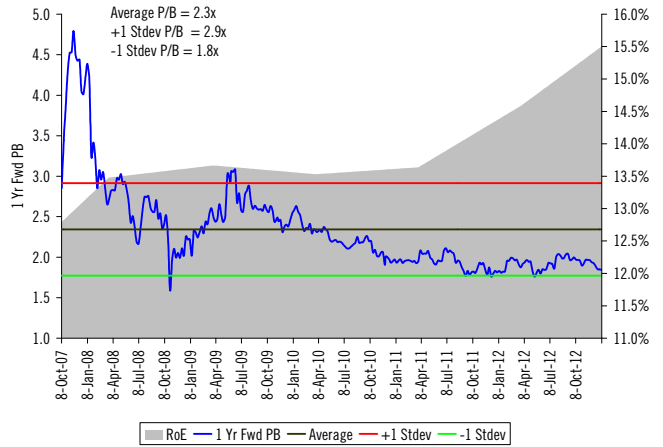
Source: Bloomberg and Citi Research estimates

Figure 5. NTPC 1 Year Forward P/BV vs RoE



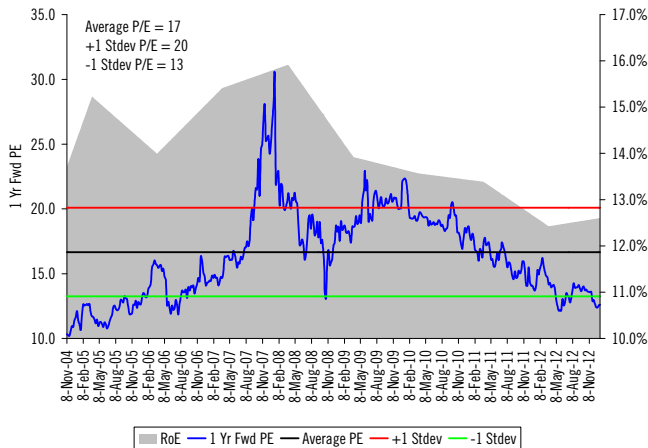
Source: DataCentral and Citi Research estimates

Figure 6. PGCIL 1 Year Forward P/BV vs RoE



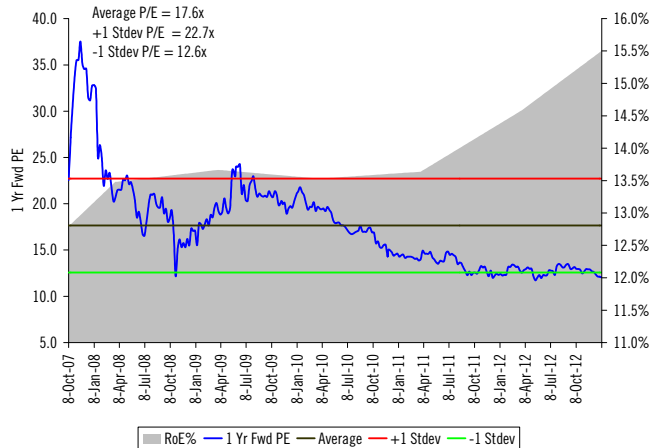
Source: DataCentral and Citi Research estimates

Figure 7. NTPC 1 Year Forward P/E vs RoE



Source: DataCentral and Citi Research estimates

Figure 8. PGCIL 1 Year Forward P/E vs RoE



Source: DataCentral and Citi Research estimates

Figure 9. NTPC 1 Year Forward Rolling P/CFO Bands

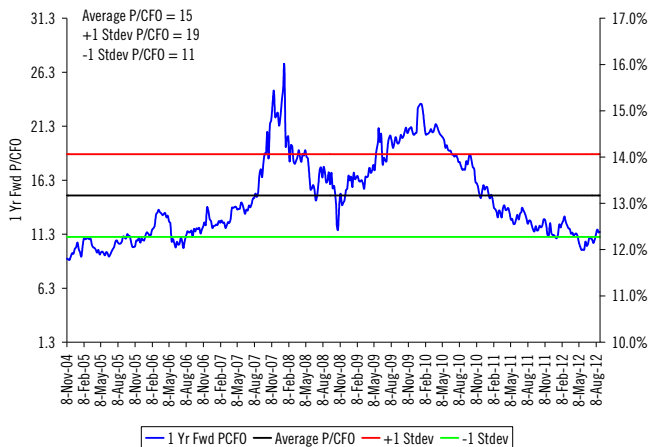
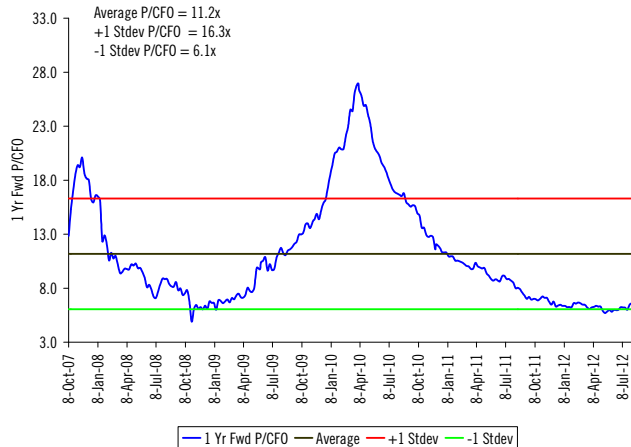


Figure 10. PGCIL 1 Year Forward Rolling P/CFO Bands



Source: DataCentral and Citi Research estimates

Source: DataCentral and Citi Research estimates

Figure 11. India Electric Utilities Comparables

Name	RIC Code	Reco	Mcap (US\$mn)	Price (Rs)	P/E			P/BV			RoE		
					FY13E	FY14E	FY15E	FY13E	FY14E	FY15E	FY13E	FY14E	FY15E
NTPC	NTPC.BO	Buy	22,817	152	13.0	12.0	11.2	1.6	1.5	1.4	12.7%	12.8%	12.6%
PGCIL	PGRD.BO	Buy	9,525	113	13.4	11.6	10.1	2.0	1.8	1.6	15.7%	16.3%	16.5%
JPVL	JAPR.BO	Buy	1,921	40	15.6	11.5	6.9	1.7	1.5	1.2	11.7%	13.9%	19.6%
JPVL (Adj treasury shares)	JAPR.BO	Buy	1,921	40	13.5	10.0	6.0	1.5	1.3	1.1	11.7%	13.9%	19.6%
Adani Power	ADAN.BO	Sell	2,450	62	(170.1)	40.0	17.1	2.3	2.2	2.0	17.0%	5.7%	12.1%
Lanco Infratech	LAIN.BO	Buy/HR	613	14	(40.9)	13.1	10.7	0.7	0.7	0.6	-1.8%	5.4%	6.2%
CESC (Conso)	CESC.BO	Buy	701	309	11.1	8.4	6.3	1.0	0.9	0.8	9.1%	11.0%	13.0%
Tata Power (Conso)	TTPW.BO	Sell	4,609	107	22.6	20.1	18.6	2.0	1.9	1.7	9.2%	9.6%	9.7%
JSW Energy	JSWE.BO	Neutral/HR	1,949	65	15.1	8.8	8.3	1.7	1.5	1.3	11.9%	18.2%	16.8%
<b>Average</b>					<b>(11.8)</b>	<b>15.1</b>	<b>10.6</b>	<b>1.6</b>	<b>1.5</b>	<b>1.3</b>	<b>10.8%</b>	<b>11.9%</b>	<b>14.0%</b>
NHPC	NHPC.BO	NR	5,748	26	13.6	12.1	11.3	1.1	1.0	1.0	8.1%	8.6%	8.6%
Torrent Power	TOPO.BO	NR	1,521	177	9.3	8.5	5.4	1.3	1.2	NA	14.0%	14.7%	NA
Reliance Power	RPOL.BO	NR	4,758	93	25.2	24.1	15.3	1.4	1.3	1.2	5.5%	5.9%	9.1%
KSK Energy Ventures	KSKE.BO	NR	438	65	9.3	7.1	4.8	0.7	0.6	0.6	8.1%	10.1%	11.6%
NLC	NLC.BO	NR	2,512	82	10.6	9.3	NA	1.1	1.0	NA	10.3%	10.6%	NA
<b>NR Average</b>					<b>13.6</b>	<b>12.2</b>	<b>9.2</b>	<b>1.1</b>	<b>1.0</b>	<b>0.9</b>	<b>9.2%</b>	<b>10.0%</b>	<b>9.8%</b>
<b>Overall Average</b>					<b>(4.0)</b>	<b>14.3</b>	<b>10.5</b>	<b>1.4</b>	<b>1.3</b>	<b>1.2</b>	<b>10.1%</b>	<b>11.0%</b>	<b>12.4%</b>

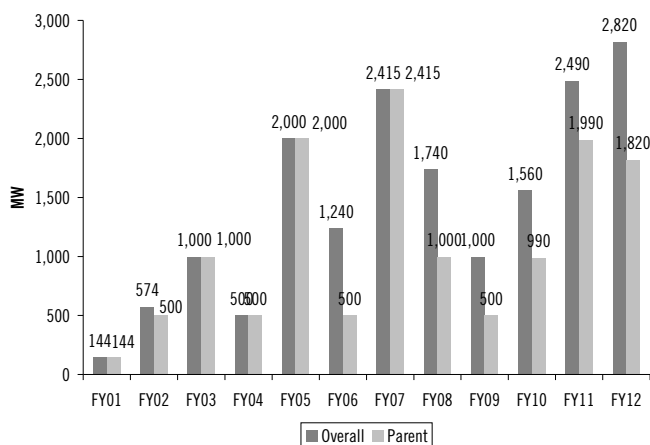
Source: Bloomberg and Citi Research estimates #Priced as of January 11, 2013 @NR = Non Rated

# Business Analysis

## Realistic XIIth plan capacity addition targets of 14GW

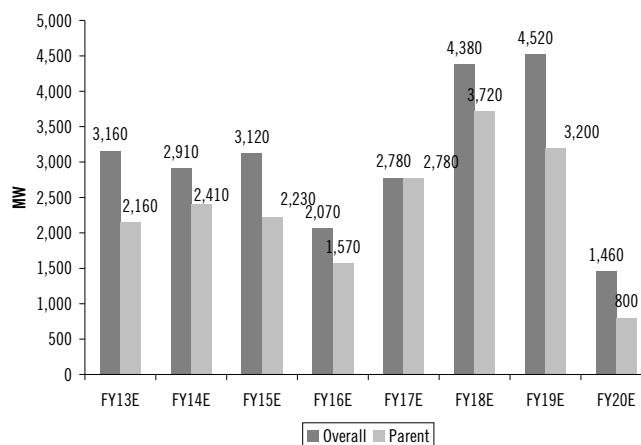
- NTPC's additions have been far below targets, with the company averaging 1.9GW/year in XIth Plan vs a promised 4GW/year. We expect additions of 2.8GW/year in XIIth Plan. If one looks at just the parent capacity additions, it is 1.3GW/year in the XIth Plan, leading to EPS CAGR of just 4% over FY07-12.
- After adding 7.2GW and 9.6GW in the Xth and XIth plans, NTPC plans to add 14GW in the XIIth plan. For the first time in many years the targets do not look unrealistic and our estimates are similar at 14GW.

Figure 12. NTPC Capacity Additions FY01-FY12 (MW)



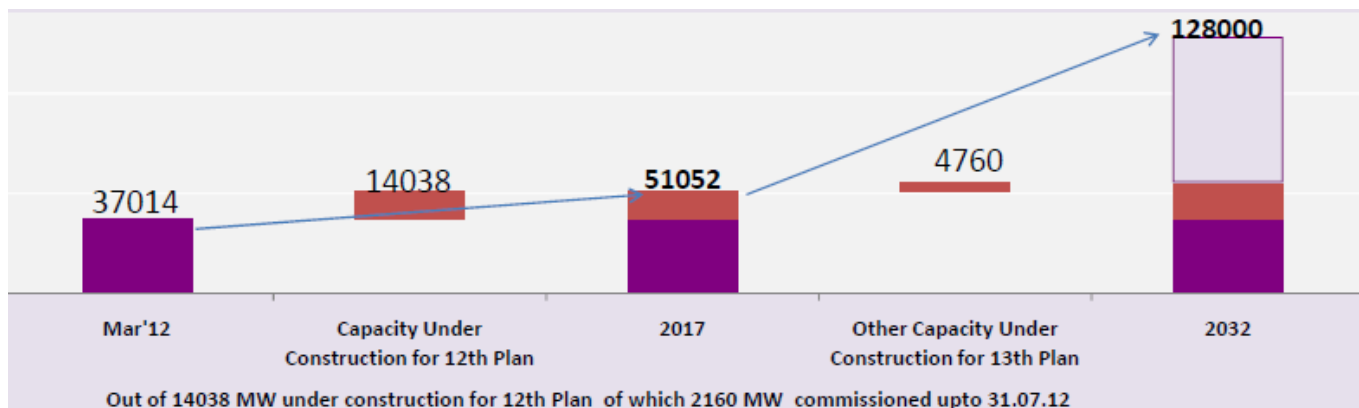
Source: Company and Citi Investment Research and Analysis

Figure 13. NTPC Capacity Additions FY12-FY19E (MW)



Source: Company and Citi Investment Research and Analysis estimates

Figure 14. NTPC – Long Term Capacity Addition Plans



Source: Company

Figure 15. NTPC Capacity Addition Plans

Capacity End Of FY12	37,014
Added in FY13 so far	2,160
- For 12th Plan	11,878
- For 13th Plan	4,760
Under construction	16,638
Awarded (Under Bulk Tender)	6,860
<b>Total Under Works</b>	<b>25,658</b>
Under tendering	3,140
Also in bidding stages	9,801
Feasibility Reports Approved	12,111
Preparing Feasibility Reports	13,000
<b>Prospective</b>	<b>38,052</b>
<b>Grand Total</b>	<b>63,710</b>

Source: Company and Citi Research

Figure 16. XIIth Plan Capacity Additions – NTPC v/s Citi

Company		Citi	
Project	MW	Project	MW
Sipat	660	Sipat	660
Mauda	1000	Mauda	500
Vindhyachal	1000	Vindhyachal	500
Rihand	500	Rihand	500
Aravalli	500	Aravalli	500
Vallur	500	Vallur	500
Solar PV	10		
<b>FY13E</b>	<b>4170</b>	<b>FY13E</b>	<b>3160</b>
Rihand	500	Rihand	500
Bongaigon	250	Bongaigon	250
Barh II	660	Vindhyachal	500
Koldam	800	Mauda	500
Vallur	500	Koldam	400
Singrauli Hydel	8	Tapovan Vishnugarh	260
		Vallur	500
<b>FY14E</b>	<b>2718</b>	<b>FY14E</b>	<b>2910</b>
Bongaigon	500	Bongaigon	250
Barh II	660	Barh II	660
Barh I	660	Barh I	660
Tapovan Vishnugarh	520	Tapovan Vishnugarh	260
Nabinagar	500	Koldam	400
Kanti Bijlee	390	Nabinagar	500
		Kanti Bijlee	390
<b>FY15E</b>	<b>3230</b>	<b>FY15E</b>	<b>3120</b>
Barh I	1320	Bongaigon	250
Vindhyachal	500	Barh II	660
Kudgi	800	Barh I	660
Nabinagar	500	Nabinagar	500
<b>FY16E</b>	<b>3120</b>	<b>FY16E</b>	<b>2070</b>
Kudgi	800	Barh I	660
		Mauda - II	660
		Solapur	660
		Kudgi	800
<b>FY17E</b>	<b>800</b>	<b>FY17E</b>	<b>2780</b>
<b>XIIth Plan</b>	<b>14038</b>	<b>XIIth Plan</b>	<b>14040</b>

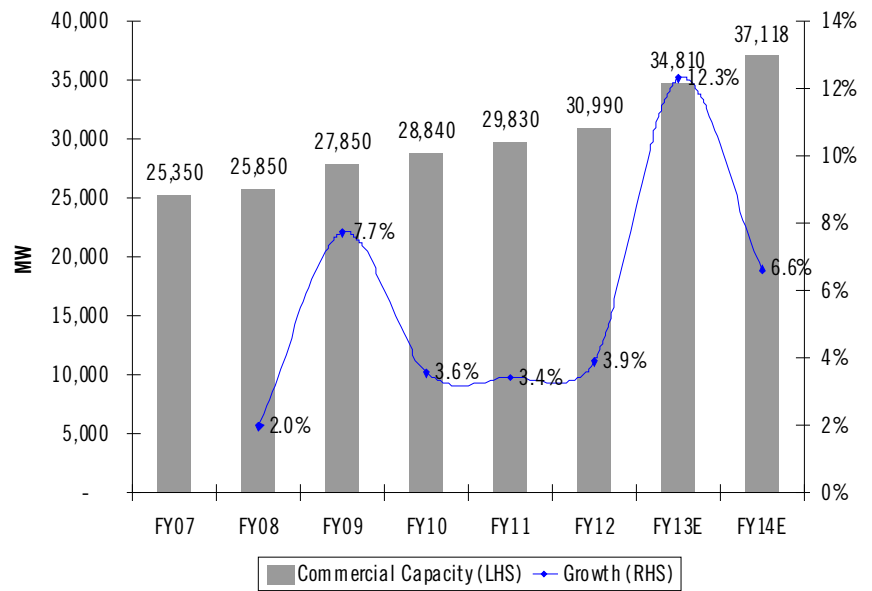
Source: Company and Citi Research

### Strong commercial capacity and regulatory equity growth over FY12-14E

- NTPC's delayed capacity additions had slowed down growth in commercial capacity and regulatory equity. We are expecting this to reverse over FY12-14E as commercial capacity grows at a CAGR of 9%, which drives regulatory equity block growth of 15% CAGR.
- So far this is tracking expectations in 1HFY13 with an increase in regulatory equity block by Rs29.1bn (vs FY13E expectations of Rs52.7bn).

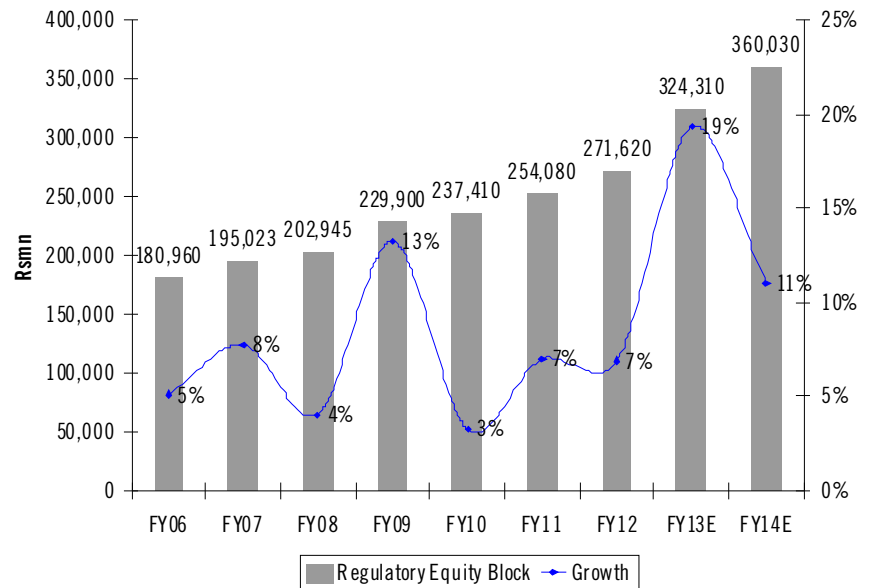


Figure 17. NTPC Commercial Capacity Growth



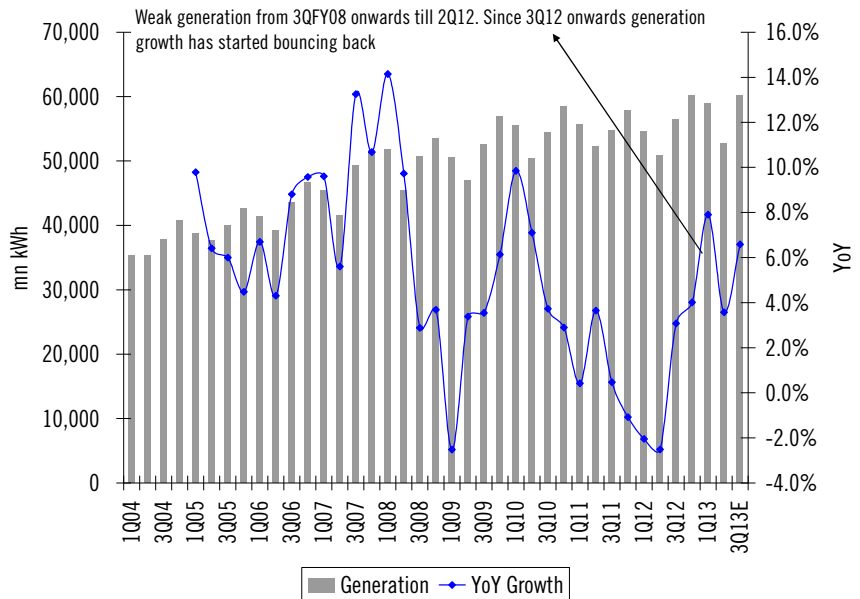
Source: Company and Citi Research estimates

Figure 18. NTPC Regulatory Equity Block Growth



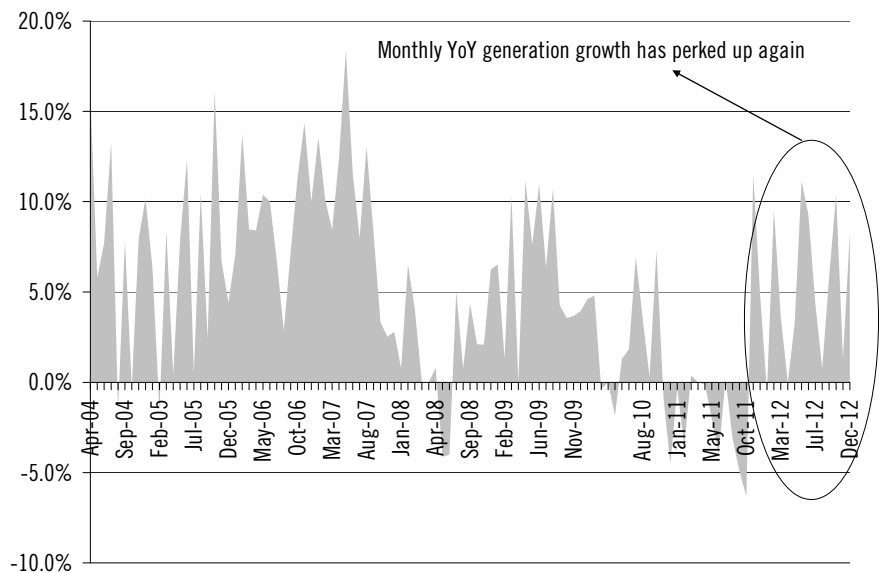
Source: Company and Citi Research estimates

**Figure 19. NTPC Quarterly Power Generation And YoY Growth**



Source: CEA and Citi Research

**Figure 20. NTPC Monthly Power Generation YoY Growth**



Source: CEA and Citi Research

**Improving coal outlook could arrest PAF and RoE fall**

- Domestic coal supply shortage is a key risk to NTPC's business. NTPC does have the option of importing coal and blending it. However, equipment constraints will keep blending at 15-20% of overall coal requirement at a maximum.

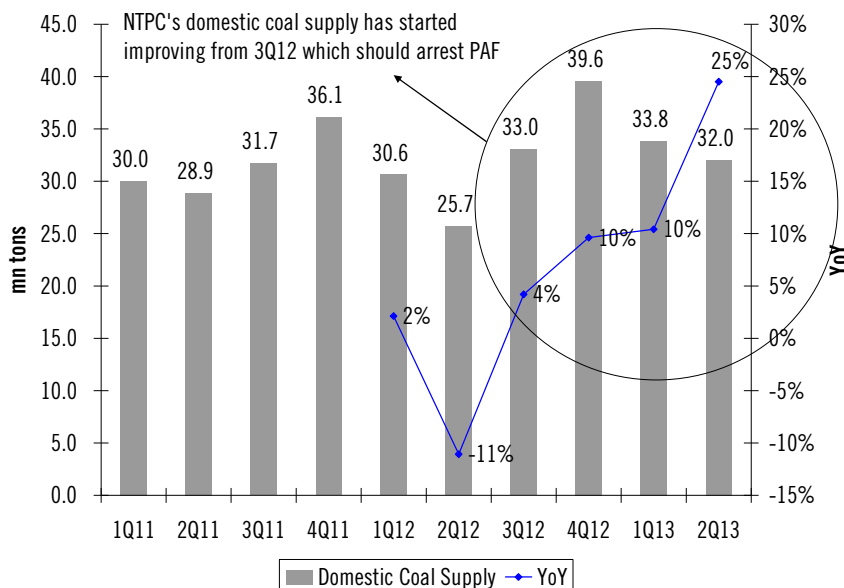
- According to Raashi Chopra, our Coal India analyst, Coal India's production for 9MFY13 is up 6.1% YoY while despatches have grown 7.9% YoY. Citi FY13E production estimates is 460mt (+5.5%) and the despatches estimate is 464mt (+7.1%). Coal India's FY13E production target is 464mt (+6.5%) and the despatch target is 470mt (+8.5%). Rake requirement in 4QFY13 will be in excess of 200/day. Note rake availability in the month of Dec12 was 199/day.

**Figure 21. Coal India Production And Despatches YTD**

Mn tons	FY13	FY12	YoY
1Q production	102.47	96.30	6.4%
1Q despatches	113.04	106.25	6.4%
2Q production	89.07	80.32	10.9%
2Q despatches	101.74	93.73	8.5%
3Q production	117.35	114.62	2.4%
3Q despatches	120.19	110.50	8.8%
9M production	308.89	291.24	6.1%
9M despatches	334.97	310.48	7.9%
FY13 production - Citi	460.00	435.84	5.5%
FY13 despatches - Citi	464.00	433.08	7.1%

Source: Coal India and Citi Research estimates

**Figure 22. NTPC Quarterly Domestic Coal Supply and YoY Growth**



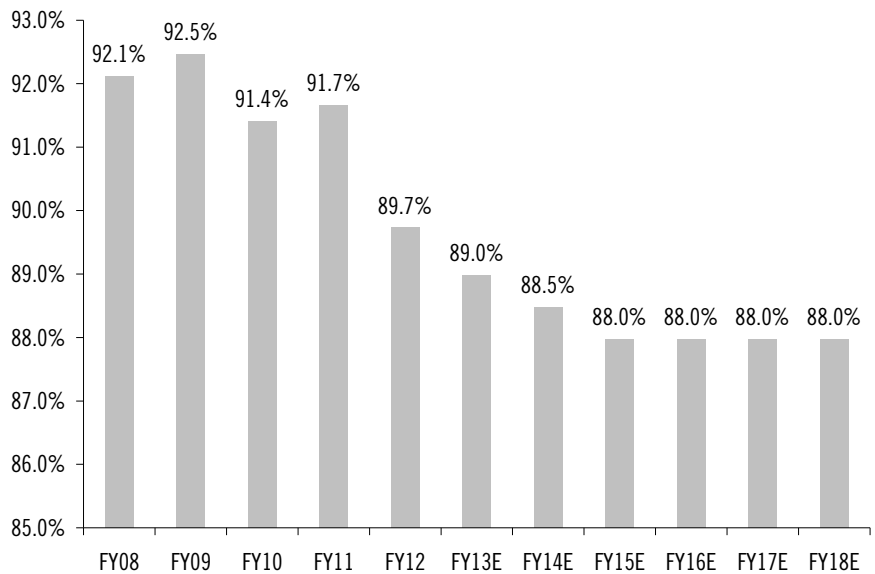
Source: Company and Citi Research

**Figure 23. Coal India Annual Production And Despatches**

Mn tons	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13E	FY14E	FY15E
Coal Production	343.4	360.9	379.5	403.7	431.3	431.3	435.8	460.0	485.0	511.9
YoY		5%	5%	6%	7%	0%	1%	6%	5%	6%
Coal Despatches	332.7	350.3	374.6	400.8	416.0	424.5	433.1	464.0	485.0	511.9
YoY		5%	7%	7%	4%	2%	2%	7%	5%	6%

Source: Coal India and Citi Research estimates

Figure 24. NTPC Coal Stations Plant Availability Factors



Source: Company and Citi Research estimates

### Coal PLFs have improved in 2QFY13

- Though it is plant availability (PAF) which determines tariffs and PAF-based incentives in the new tariff block of FY10-14, if PLF starts coming off and generation is lower than expected, then the quantum of cost savings the company has for operating plants below normative station heat rates also comes off. This impacts the overall RoEs of the company.
- Our analysis of the last five years of monthly PLFs (to negate the seasonality factor) of NTPC suggests that there is a perceptible decline in PLFs from FY11, which has further deteriorated in FY12.
- After eight quarters of YoY decline, average PLFs have improved in 2QFY13.

Figure 25. NTPC Coal Monthly PLF %

	FY05	FY06	YoY	FY07	YoY	FY08	YoY	FY09	YoY	FY10	YoY	FY11	YoY	FY12	YoY	FY13	YoY
April		88.2		87.7	(0.5)	91.1	3.4	88.4	(2.7)	93.2	4.8	88.8	(4.4)	86.6	(2.2)	84.0	(2.6)
May		86.5		89.3	2.8	96.4	7.1	90.3	(6.0)	93.5	3.1	91.2	(2.2)	88.3	(3.0)	89.8	1.5
June		86.7		86.4	(0.3)	94.2	7.8	88.5	(5.6)	91.9	3.3	90.2	(1.7)	85.5	(4.7)	85.3	(0.3)
<b>1Q</b>					<b>0.7</b>		<b>6.1</b>		<b>(4.8)</b>		<b>3.7</b>		<b>(2.8)</b>		<b>(3.3)</b>		<b>(0.4)</b>
July		80.7		82.0	1.3	82.7	0.7	84.0	1.4	83.6	(0.5)	86.8	3.2	85.4	(1.5)	81.3	(4.0)
August		79.1		82.5	3.4	84.0	1.5	80.9	(3.2)	82.0	1.1	82.6	0.6	76.8	(5.8)	72.4	(4.4)
September		78.2		82.9	4.7	83.1	0.2	83.4	0.3	81.5	(1.9)	79.2	(2.4)	70.5	(8.6)	71.0	0.4
<b>2Q</b>					<b>3.1</b>		<b>0.8</b>		<b>(0.5)</b>		<b>(0.4)</b>		<b>0.5</b>		<b>(5.3)</b>		<b>(2.7)</b>
October		86.8		89.4	2.6	87.4	(2.1)	86.0	(1.4)	86.0	0.1	88.5	2.4	77.3	(11.2)	81.1	3.8
November		86.6		88.9	2.3	91.2	2.3	87.2	(4.1)	89.1	1.9	85.1	(4.1)	88.2	3.1	84.8	(3.4)
December		89.3		94.5	5.2	92.5	(2.0)	95.7	3.2	96.3	0.6	87.8	(8.5)	86.0	(1.8)	88.3	2.3
<b>3Q</b>					<b>3.4</b>		<b>(0.6)</b>		<b>(0.7)</b>		<b>0.9</b>		<b>(3.4)</b>		<b>(3.3)</b>		<b>0.9</b>
January	92.6	94.2	1.6	96.9	2.7	94.6	(2.3)	96.8	2.2	98.9	2.1	93.8	(5.1)	89.4	(4.4)		
February	89.6	96.5	6.9	96.2	(0.3)	93.5	(2.7)	96.7	3.2	96.3	(0.5)	92.6	(3.7)	92.1	(0.5)		
March	91.7	95.7	4.0	95.0	(0.8)	94.3	(0.7)	100.0	5.7	94.7	(5.3)	94.7	(0.0)	91.7	(3.0)		
<b>4Q</b>					<b>0.5</b>		<b>(1.9)</b>		<b>3.7</b>		<b>(1.2)</b>		<b>(2.9)</b>		<b>(2.6)</b>		
<b>FY</b>					<b>1.9</b>		<b>1.1</b>		<b>(0.6)</b>		<b>0.8</b>		<b>(2.1)</b>		<b>(3.6)</b>		

Source: CEA and Citi Research

## 2QFY13 Results Review

- NTPC's 2QFY13 reported PAT at Rs31.4bn was up 30% YoY. However, this included Rs10.2bn of prior-period sales (vs Rs7.6bn of prior-period sales in 2QFY12). Adjusting for the same recurring PAT at Rs23.6bn was up 24% YoY vs Citi at Rs22.4bn. 1HFY13 Recurring PAT at Rs47.3bn is up 8% YoY.
- Coal PLF declined 348bps YoY in 2QFY13 post a decline of 40bps YoY in 1QFY13 and coal PAFs declined 330bps YoY in 2QFY13 post a decline of 149bps YoY in 1QFY13.

Figure 26. NTPC 2QFY13 Operational Data

Year End March 31	1QFY12	1QFY13	Change	2QFY12	2QFY13	Change	2QFY13E
Gross Generation (NTPC) – (bn kWh)	54.566	58.872	7.9%	50.875	52.719	3.6%	52.713
Commercial Generation (bn kWh)	54.566	58.133	6.5%	50.317	52.475	4.3%	
Energy Sent Out (bn kWh)	51.050	54.405		46.922	48.863	4.1%	48.617
Auxiliary Consumption	6.4%	7.6%		7.8%	7.3%		7.8%
<b>PLF</b>							
Coal stations	86.9%	86.5%	-0.4%	78.38%	74.90%	-3.5%	
Gas stations	NA	NA		60.84%	57.64%	-3.2%	
<b>Availability</b>							
- Coal stations	89.9%	88.4%	-1.5%	83.4%	80.1%	-3.3%	
- Gas stations	89.8%	92.6%	2.8%	92.7%	90.2%	-2.5%	
<b>Coal supply (mn tonnes)</b>	<b>33.980</b>	<b>36.560</b>	<b>7.6%</b>	<b>28.570</b>	<b>33.500</b>	<b>17.3%</b>	
- imported (mn tonnes)	3.340	2.770	-17.1%	2.770	1.500	-45.8%	
- domestic (mn tonnes)	30.640	33.790	10.3%	25.800	32.000	24.0%	

Source: Company and Citi Research estimates

Figure 27. NTPC 2QFY13 Results Review

Year End March 31 (Rs million)	1QFY12	1QFY13	Change	2QFY12	2QFY13	Change	2QFY13E
<b>Net Sales Reported</b>	<b>141,715</b>	<b>159,600</b>	<b>12.6%</b>	<b>153,775</b>	<b>161,197</b>	<b>4.8%</b>	<b>158,866</b>
- Less Prior Period Sales	2,405	(1,099)		(7,594)	(10,237)		
<b>Recurring Net Sales (Ex Prior Period)</b>	<b>144,120</b>	<b>158,501</b>	<b>10.0%</b>	<b>146,182</b>	<b>150,960</b>	<b>3.3%</b>	<b>158,866</b>
Fuel Cost	(97,498)	(105,977)		(106,494)	(99,327)		(110,171)
% of net sales	67.7%	66.9%		72.9%	65.8%		69.3%
Per kWh	1.79	1.80		2.09	1.88		2.09
Employee Cost	(6,907)	(7,907)		(7,846)	(8,965)		(7,907)
% of net sales	4.8%	5.0%		5.4%	5.9%		5.0%
Others	(8,647)	(9,410)		(7,046)	(10,663)		(7,800)
% of net sales	6.0%	5.9%		4.8%	7.1%		4.9%
<b>EBITDA</b>	<b>31,067</b>	<b>35,207</b>	<b>13.3%</b>	<b>24,796</b>	<b>32,006</b>	<b>29.1%</b>	<b>32,989</b>
<b>% Margin</b>	<b>21.6%</b>	<b>22.2%</b>		<b>17.0%</b>	<b>21.2%</b>		<b>20.8%</b>
Depreciation	(6,411)	(7,602)		(6,583)	(7,865)		(7,700)
<b>EBIT</b>	<b>24,655</b>	<b>27,605</b>	<b>12.0%</b>	<b>18,213</b>	<b>24,140</b>	<b>32.5%</b>	<b>25,289</b>
<b>% Margin</b>	<b>17.1%</b>	<b>17.4%</b>		<b>12.5%</b>	<b>16.0%</b>		<b>15.9%</b>
Interest	(3,744)	(4,994)		(5,300)	(3,035)		(5,500)
Other Income	9,964	8,849		10,093	10,482		9,500
<b>PBT</b>	<b>30,876</b>	<b>31,461</b>	<b>1.9%</b>	<b>23,006</b>	<b>31,588</b>	<b>37.3%</b>	<b>29,289</b>
Provision for tax	(6,214)	(7,779)		(3,964)	(7,926)		(6,824)
Tax Rate	20.1%	24.7%		17.2%	25.1%		23.3%
<b>Recurring PAT</b>	<b>24,662</b>	<b>23,682</b>	<b>-4.0%</b>	<b>19,042</b>	<b>23,662</b>	<b>24.3%</b>	<b>22,465</b>
<b>Exceptional Items</b>	<b>(4,388)</b>	<b>1,561</b>		<b>6,847</b>	<b>10,237</b>		
- Prior Period sales	(2,405)	1,099		7,594	10,237		
- Previous year tax	(1,983)	462		(2,735)	-		
<b>Tax Adjustment</b>	<b>483</b>	<b>(256)</b>		<b>(1,648)</b>	<b>(2,475)</b>		
<b>Reported PAT</b>	<b>20,757</b>	<b>24,987</b>	<b>20.4%</b>	<b>24,241</b>	<b>31,424</b>	<b>29.6%</b>	<b>22,465</b>

Source: Company and Citi Research estimates

## PGCIL vs NTPC: Comparative Analysis

- In a regulated-returns environment, it makes sense for utilities to leverage the balance sheet to the maximum (as interest costs are a pass-through in the tariffs) and to have high dividend payouts to maximize average company RoEs.
- It also helps if the execution period of projects is shorter, as this reduces the quantum of unproductive CWIP vis-a-vis productive commissioned assets. Having a higher quantum of productive commissioned assets over SEB bonds and cash also increases RoEs.
- The call between NTPC and PGCIL is tough. Though PGCIL will likely grow faster, have higher RoEs and has a relatively less risky business model, the PGCIL stock has outperformed the NTPC stock for four years in succession, is relatively more over-owned, PGCIL has a higher leverage and can improve RoEs to a lesser quantum (given the high base effect) than NTPC in case there is a significant improvement in the coal supply situation.

Figure 28. NTPC vs PGCIL Comparative Analysis

Year End Mar31	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13E	FY14E	FY15E
<b>Average RoE</b>											
- NTPC	15.2%	14.0%	15.4%	15.9%	13.9%	13.6%	13.4%	12.4%	12.7%	12.8%	12.6%
- PGCIL	9.2%	11.2%	12.0%	13.5%	13.7%	13.5%	13.6%	14.6%	15.7%	16.3%	16.5%
<b>P/E</b>											
- NTPC	21.3	20.7	17.4	15.6	16.4	15.4	14.4	14.3	13.0	12.0	11.2
- PGCIL	55.9	42.0	35.3	29.2	24.8	23.0	20.6	16.0	13.4	11.6	10.1
<b>P/BV</b>											
- NTPC	3.0	2.8	2.6	2.4	2.2	2.0	1.8	1.7	1.6	1.5	1.4
- PGCIL	5.0	4.5	4.0	3.5	3.3	3.0	2.4	2.2	2.0	1.8	1.6
<b>CWIP as % of NFA</b>											
- NTPC	30.8%	37.1%	39.6%	46.3%	44.5%	48.0%	47.5%	48.0%	43.3%	37.2%	35.3%
- PGCIL	23.6%	25.7%	30.2%	24.3%	29.9%	38.9%	38.9%	37.2%	34.0%	34.0%	34.0%
<b>SEB Bonds as % of NFA</b>											
- NTPC	50.9%	46.8%	34.8%	27.0%	19.3%	14.7%	10.9%	7.5%	5.1%	3.2%	1.4%
- PGCIL	8.0%	7.5%	5.4%	4.0%	2.8%	2.1%	1.4%	0.9%	0.5%	0.3%	0.1%
<b>Cash as % of NFA</b>											
- NTPC	18.9%	23.1%	31.3%	30.7%	27.4%	21.6%	21.7%	18.5%	17.4%	15.9%	15.6%
- PGCIL	2.8%	2.4%	3.8%	5.2%	5.5%	6.2%	6.0%	3.1%	2.7%	2.7%	2.4%
<b>Net Debt/ Equity</b>											
- NTPC	26%	26%	23%	23%	32%	37%	40%	47%	46%	46%	45%
- PGCIL	147%	149%	170%	151%	178%	195%	174%	217%	232%	233%	226%
<b>PGCIL</b>											
EPS	2.02	2.69	3.20	3.87	4.56	4.91	5.49	7.07	8.44	9.75	11.15
Growth		33.1%	18.8%	21.2%	17.8%	7.6%	11.9%	28.6%	19.5%	15.5%	14.4%
Book Value	22.8	25.4	27.9	32.1	34.7	37.9	46.2	50.7	56.5	63.5	71.7
Growth		11.4%	10.1%	14.8%	8.3%	9.0%	21.9%	9.9%	11.4%	12.3%	13.0%
<b>NTPC</b>											
EPS	7.14	7.36	8.74	9.77	9.29	9.86	10.58	10.64	11.67	12.71	13.58
Growth		3.1%	18.8%	11.7%	-4.9%	6.1%	7.3%	0.5%	9.8%	8.9%	6.9%
Book Value	50.7	54.5	58.9	63.8	69.6	75.7	82.3	88.9	95.7	103.3	111.5
Growth		7.6%	8.1%	8.3%	9.0%	8.8%	8.7%	8.0%	7.7%	7.9%	8.0%

Source: Company and Citi Research estimates

## NTPC

### Company description

NTPC is India's largest power generator with 37GW of capacity and generates 222bu. Capacity is spread across coal-based units (28.7GW), gas-based units (3.9GW) and JV projects (4.4GW). NTPC's output is contracted through long-term PPAs (25 years for coal-based and 15 years for gas-based) with customers (SEBs 99% of its sales). All billing to SEBs is secured through letters of credit.

### Investment strategy

We rate NTPC Buy.

- NTPC underperformed the BSE Sensex by 28% in CY12 as the coal supply situation deteriorated.
- NTPC currently trades at 12.6x P/E and 1.5x P/BV 1 year forward (sub historical 1 standard deviation below mean). Further, on a robust metric like P/CFO also it seems cheap.
- Over FY12-14E as commercial capacity grows at a CAGR of 9%, it would drive regulatory equity block growth of 15% CAGR which in turn would support EPS growth and RoEs
- NTPC's RoEs were 12.4% in FY12, the lowest in last 8 years. However, with improving Coal India production things have started looking up: (1) 3 quarters of YoY domestic coal supply growth (2) 5 quarters of YoY generation growth and (3) PLF improvement in 3QFY13.

### Valuation

Our target price for NTPC of Rs183 is based on a DCF model that uses a WACC of 9.8% and a terminal growth rate of 2%. Our assumptions are a risk-free rate of 8.5%, a market risk premium of 6% and beta of 0.85. We believe DCF is the best way to capture the value inherent in NTPC's unprecedented capacity addition plan against a backdrop of persistent peak and base load deficits. Further, at our Rs183 target price NTPC would trade at a P/BV of 1.8x FY14E which is at a discount to the historical average P/BV of 2.2x We believe this discount is warranted given RoEs have come off from 15.9% in FY08 to 12-13% levels.

### Risks

Key downside risks to our target price are: 1) NTPC's operations depend on timely availability of fuel. NTPC's coal and gas-based plants were hampered by poor fuel supply, resulting in sub-optimal capacity utilization. 2) 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, which could place demands on its project management and technology absorption skills. 3) UI rates are very high compared with normal tariff rates, creating pressure from the SEBs to reduce this spot market premium. 4) Future payment risk due to resurfacing of free power supply to agricultural customers as a populist measure by a few states. 5) NTPC has entered a JVs and bid for an oil & gas exploration block in northeast India. This raises the risk of non-discovery.



## Power Grid Corporation of India

### Valuation

DCF is normally preferred when valuing an electric utility company that has regulated earnings and cash flow streams. However, for a company like PGCIL, which we estimate will be FCF negative until at least FY12E and might continue to be FCF negative beyond FY12E depending on the scale of the capex it undertakes in the XIIth Plan (FY13E -FY17E), the DCF approach could either overestimate or underestimate the value of the company based on the terminal year cash-flow assumptions. The entire value would depend on the steady state case assumed when growth capex stops and the company does only maintenance capex and generates substantial amounts of cash. The DCF value would also be extremely sensitive to the maintenance capex assumption in the terminal year. We therefore believe P/BV valuation methodology is more appropriate. Our target price of Rs140 is set at 2.2x P/BV for Mar14E, a ~8% discount to the historical average P/BV of 2.4x since listing, given the sector's generic risks of coal shortage, falling merchant prices and deteriorating SEB finances.

### Risks

Key downside risks to our target price include: 1) Creditworthiness of the State Power Utilities; 2) Changes in the regulatory environment; 3) Increased competition; and 4) Project-related risks. Key upside risks are: 1) Faster-than-expected project execution leading to earlier capitalization of capex; 2) Higher-than-expected short-term open access revenues due to a spurt in power trading, and 3) Higher-than-expected revenues and profitability in consulting and telecoms businesses.

## Appendix A-1

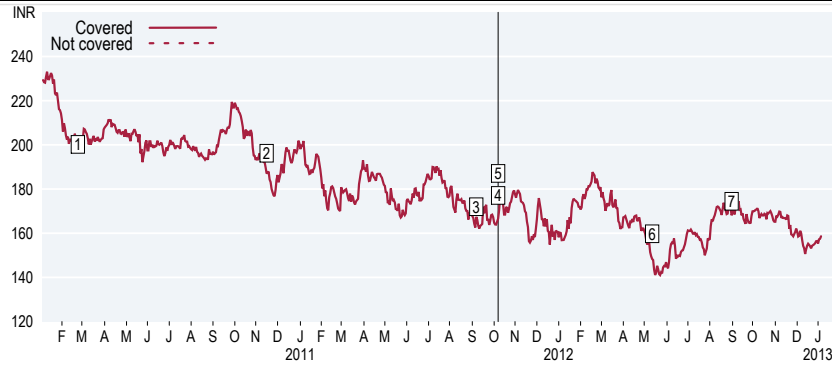
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**Ratings and Target Price History**  
**Fundamental Research**

Analyst: Venkatesh Balasubramaniam



	Date	Rating	Target Price	Closing Price
1	23-Feb-10	*1L	*229.00	201.60
2	16-Nov-10	1L	*210.00	187.00
3	7-Sep-11	*2L	*180.00	167.40

	Date	Rating	Target Price	Closing Price
4	7-Oct-11	Stock rating system changed		
5	7-Oct-11	*2	180.00	166.60
6	11-May-12	2	*160.00	148.35

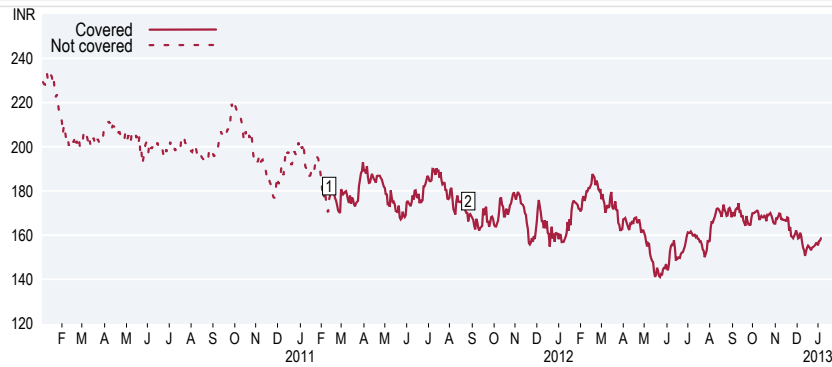
	Date	Rating	Target Price	Closing Price
7	31-Aug-12	2	*173.00	168.10

\* Indicates change

Rating/target price changes above reflect Eastern Standard Time

**NTPC (NTPC.BO)**  
**Ratings and Target Price History**  
**Best Ideas Research**  
**Relative Call (3 Month)**

Analyst: Venkatesh Balasubramaniam



	Date	Rating	Target Price	Closing Price
1	11-Feb-11	*ADD LP	-	176.30

	Date	Rating	Target Price	Closing Price
2	26-Aug-11	*REM LP	-	166.20

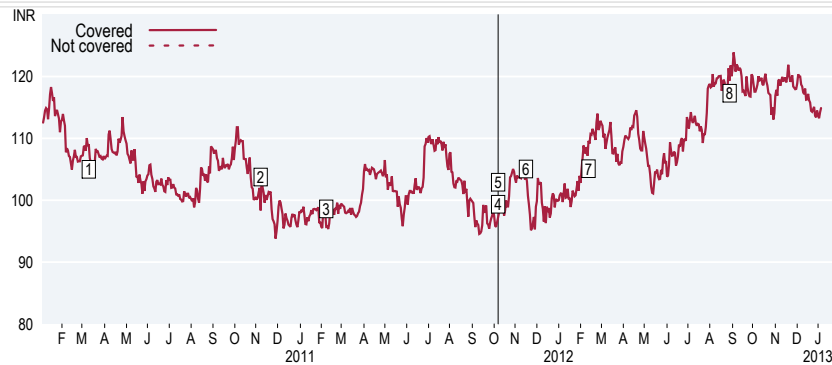
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**Power Grid Corporation of India (PGRD.BO)**

**Ratings and Target Price History**  
**Fundamental Research**

Analyst: Venkatesh Balasubramaniam



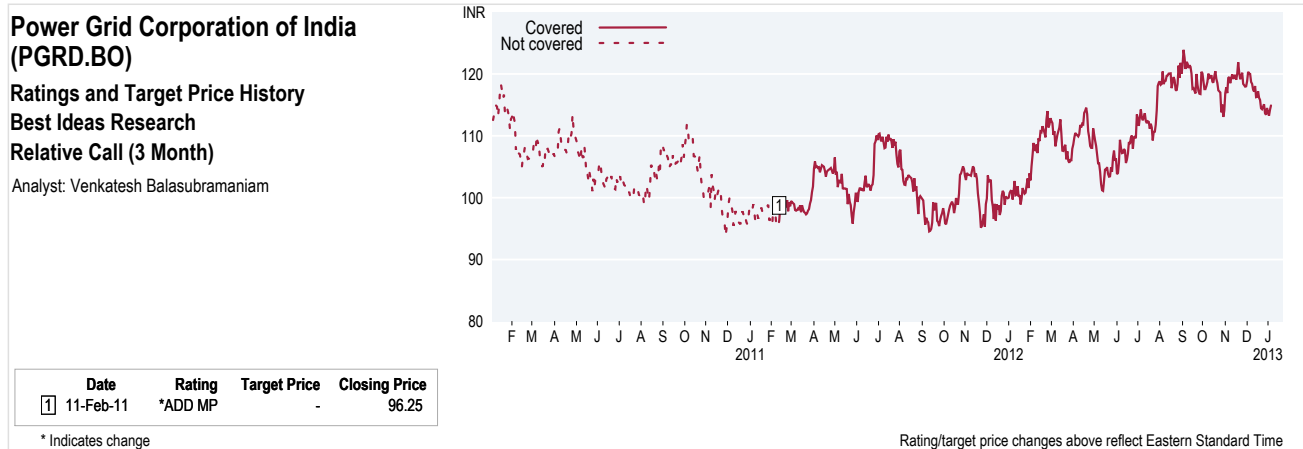
	Date	Rating	Target Price	Closing Price
1	10-Mar-10	*2L	*116.00	109.05
2	8-Nov-10	*1L	*117.00	98.35
3	8-Feb-11	1L	*118.00	95.70

	Date	Rating	Target Price	Closing Price
4	7-Oct-11	Stock rating system changed		
5	7-Oct-11	*1	118.00	97.25
6	16-Nov-11	1	*121.00	103.95

	Date	Rating	Target Price	Closing Price
7	13-Feb-12	1	*126.00	109.60
8	29-Aug-12	1	*140.00	119.35

\* Indicates change

Rating/target price changes above reflect Eastern Standard Time



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**Data current as of 31 Dec 2012**

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