HSBC Global Research

28 June 2024

India Power

Too hot! Valuation to cool down after summer

Equities
Electric Utilities

India

- We expect valuation to cool down after summer on capacity addition, tight management, La Nina and high base effect
- However, the long-term trajectory remains positive but more calibrated and favouring the renewable supply chain
- Maintain Buy on RNW, downgrade PWGR to Reduce and NTPC to Hold, maintain Reduce on TPWR and BHEL

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Too hot. The narrative of power shortages, announcements to accelerate capacity addition and potential reforms in the power sector have elevated stock valuations since July 2023. We believe the shortage of power in July-Oct 2023 (c20% y-o-y) was driven by the weakest monsoon in 122 years, which increased demand from agriculture and the use of air-conditioning but lacked hydro support. This increased power prices, noise around power capacity addition, and drove stock valuations.

Set to cool down after summer. The Indian meteorological department expects La Nina to deliver more rainfall. Further, a high base during last July-Oct could create the impression of a fall in demand. And since Sept 2023, 4.1GW of thermal capacity and 14.9GW of renewable energy (RE) capacity has been added to meet demand. We believe FY25 will see another large capacity addition of c10GW/c25GW of thermal/RE. This will likely cool the valuation premium attributed to capacity shortage.

Positive but calibrated. While we are still positive on the long-term potential of India's power sector, we think it needs to be viewed in a more calibrated way. **(1)** Power capacity in India will be commissioned but based on the ability of state distribution companies (discoms) to pay. **(2)** Increased electrification will increase power demand, but more efficient power equipment will help manage this increase. **(3)** A greater focus on RE will drive an increase in captive RE plants which will reduce the demand pressure on discoms but also negatively impact their finances. **(4)** RE installations combined with batteries will pick up pace on favourable economics, driven by lower module and battery prices. **(5)** The expiry of the Inter State Transmission System (ISTS) waiver, adoption of battery storage, and promotion of decentralisation schemes will democratise transmission and reduce the burden on ISTS. **(6)** India will proceed with electricity reforms but, given the involvement of states and a lower central government majority, reforms will be only gradual.

Stock views. **PWGR:** Downgrade to Reduce as the market is overestimating capex and profitability, while the stock is trading at 4.6std dev above its 10-year mean PB. **NTPC:** Downgrade to Hold as renewables valuation and pace of thermal capacity addition may not meet investor estimates, while the stock is trading at 3.6std dev above its 10-year mean PB. **TPWR:** Maintain Reduce as the market is pricing in developments which are beyond the control of management, with the stock trading at 3std dev above its 10-year mean PB. **BHEL:** Maintain Reduce as we expect low terminal value of thermal business and risk of poor execution, with the stock trading at 4.1std dev above its 10-year mean PB. **RNW:** Maintain Buy on uptick in capacity addition, higher IRRs; the stock is trading at 10.6x FY26e EV/EBITDA.

Risks to our thesis: Weak rainfall, climate change and blockbuster power reform.

The beat goes on
The 16th edition of the EM Sentiment Survey
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Disclosures & Disclaimer

This report must be read with the disclosures and the analyst certifications in the Disclosure appendix, and with the Disclaimer, which forms part of it.

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Companies under coverage

Key changes to ratings and estimates

Company	Ticker	Currency	Current price	TP Old	TP New	Rating Old	Rating New	Upside/ downside	Market cap (USDm)	3m ADTV (USDm)	FY25e PB	FY25e EV/EBITDA	FY25e P/E
Power Grid Corporation	PWGR IN	INR	332.95	180.00	270.00	Hold	Reduce	-18.9%	37,097	44.0	3.4x	11.3x	19.3x
NTPC	NTPC IN	INR	362.75	340.00	355.00	Buy	Hold	-2.1%	42,138	43.4	2.2x	9.5x	17.7x
ReNew Energy	RNW US	USD	6.47	10.25	10.25	Buy	Buy	58.4%	1,648	4.9	1.8x	11.3x	54.4x
Tata Power	TPWR IN	INR	435.60	300.00	300.00	Reduce	Reduce	-31.1%	16,683	51.7	4.4x	18.3x	39.5x
BHEL	BHEL IN	INR	294.70	55.00	72.00	Reduce	Reduce	-75.6%	12,293	53.1	4.0x	55.3x	77.0x

Source: Bloomberg, HSBC estimates. Priced as of close at 24 June 2024

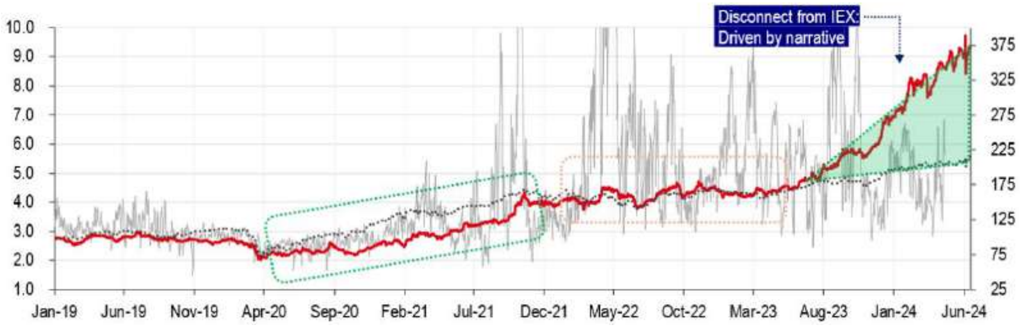
Contents

Companies under coverage	2
Drivers of narrative for FY24 power stock price appreciation	4
We think after this intense heatwave, as monsoons arrive some of the valuation premium can unwind	6
Structurally, we remain constructive on the sector, but sector growth needs to be viewed in a calibrated way	8
Power Grid Corporation of India	17
NTPC	19
Tata Power	20
ReNew Energy Global	22
BHEL	23
Disclosure appendix	**30**
Disclaimer	**35**

Drivers of narrative for FY24 power stock price appreciation

Narrative of power shortages driven by low rainfall around July-September 2023, announcements of potential capacity addition and power reforms in pre-election period drove up power share prices

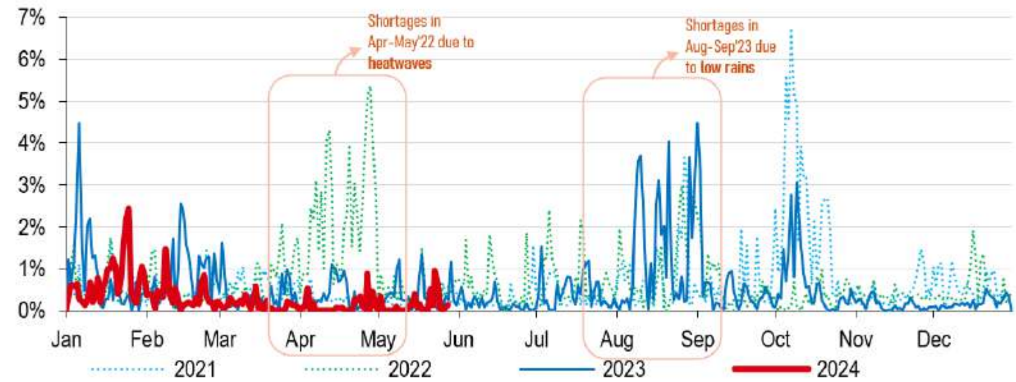
Power stock index vs Nifty 50 vs IEX average power prices



Source: Elekore, HSBC

This stock performance was driven a strong narrative of shortage of power capacity in the hot and humid months of July to September 2023.

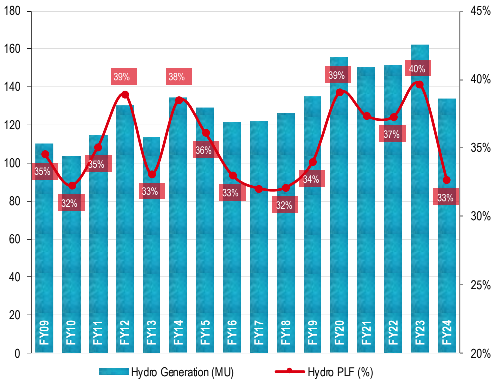
Monthly deficit in power – since 2018 (based on MW) and energy (based on units) (%) – peak shortage



Source: Elekore, HSBC

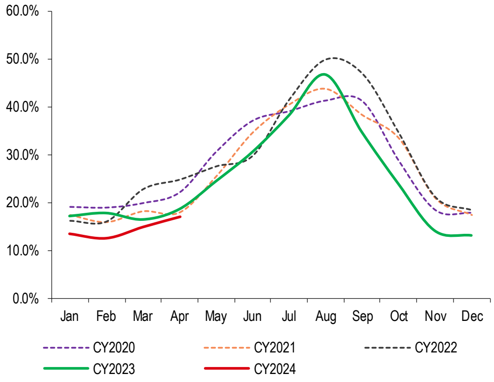
This narrative in our view was primarily as a result of the lowest rainfall in 122 years which lowered support from hydro power production coinciding with the high-demand summer sowing season (Kharif) which needed more support in the absence of rain.

Hydro generation (BUs) and PLFs (%)



Source: Elekore, HSBC

Monthly hydro PLF



Source: Elekore, HSBC

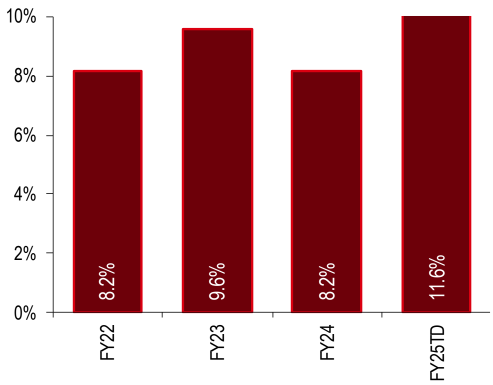
The impact of this was further exaggerated by increased use of air-conditioning in humid and hot months.

This performance in stock prices continued even beyond the periods of power shortage as the government continued to highlight its focus on tight management of the power sector – implementation of Section 11 of the Electricity Act and improved preparedness in terms of availability of coal.

It also created noise for the need to add further capacity at a rapid pace, with the government announcing targets of 80GW of thermal capacity by 2032 and renewable power auctions of 50GW plus every year compared to c18GW witnessed in FY24.

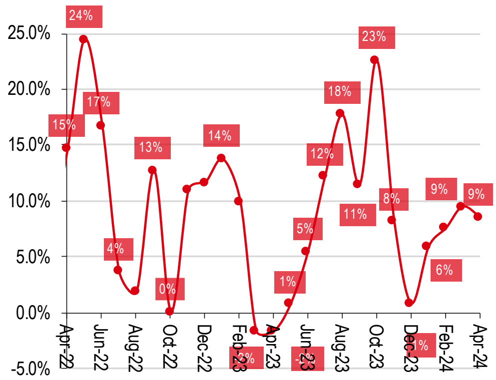
The narrative of strong power demand got further support from the last three years of data showing electricity demand growth higher than GDP.

Growth in all-India power requirement (FY22-FY24) (%)



Source: Elekore, HSBC

Monthly power demand (FY22-24)



Source: Elekore, HSBC

We also believe a lot of stock movements are influenced by retail shareholders, which might have implications for short-term valuations

Absolute number of shareholders

	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
NTPC	631,312	566,377	561,689	605,244	779,609	972,465	983,606	1,393,480
PGCIL	671,277	598,244	562,363	556,321	591,585	804,152	802,619	1,100,850
Tata Power	288,907	319,502	326,465	358,541	986,433	3,430,598	3,890,518	4,435,226
JSW Energy	125,691	138,543	129,960	119,622	150,877	235,644	265,138	360,241
Torrent Power	118,491	123,399	117,467	111,862	112,348	134,002	125,793	140,153
NHPC	809,485	741,541	683,938	656,438	682,840	826,357	835,504	3,335,566
SJVN	84,060	89,274	96,930	97,775	143,481	309,180	316,055	1,181,241
BHEL	383,371	471,048	492,165	584,236	986,752	1,281,743	1,016,936	1,499,202
REC	280,923	326,428	304,169	300,458	332,824	423,518	576,759	770,808
PFC	230,874	295,953	245,025	228,531	308,651	417,337	429,397	707,579
Total	**3,624,391**	**3,670,309**	**3,520,171**	**3,619,028**	**5,075,400**	**8,834,996**	**9,242,325**	**14,924,346**
Change %		*1%*	*-4%*	*3%*	*40%*	*74%*	*5%*	*61%*

Source: HSBC

We think after this intense heatwave, as monsoons arrive some of the valuation premium can unwind

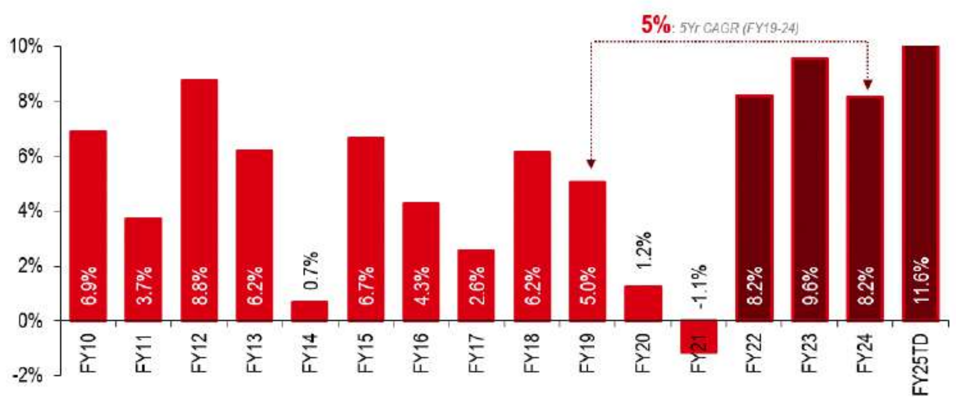
Sustenance of higher electricity demand is yet to be proven

We note that FY22 and FY23 electricity demand growth benefitted from the lower base of COVID-19, while FY24 demand growth benefitted from acute shortage of rainfall in July-Sep'23. If monsoons are normal as is forecast by IMD and La Nina does prevail, we can expect much lower deficits and an optical decline in power demand during the months of July-Oct 2024.

Further, in spite of strong demand in FY22-24, the 5- and 6-year CAGR electricity demand growth has been 5.1% from FY19-24 and FY18-24 which reflects much lower impact of industrial activity on power demand.

Last three year of strong power demand has created an impression of faster electricity demand. We note that electricity demand has grown by 5% CAGR over FY19-24

Growth in all-India power requirement (%)



Source: Elekore, HSBC

Government has managed the power situation well

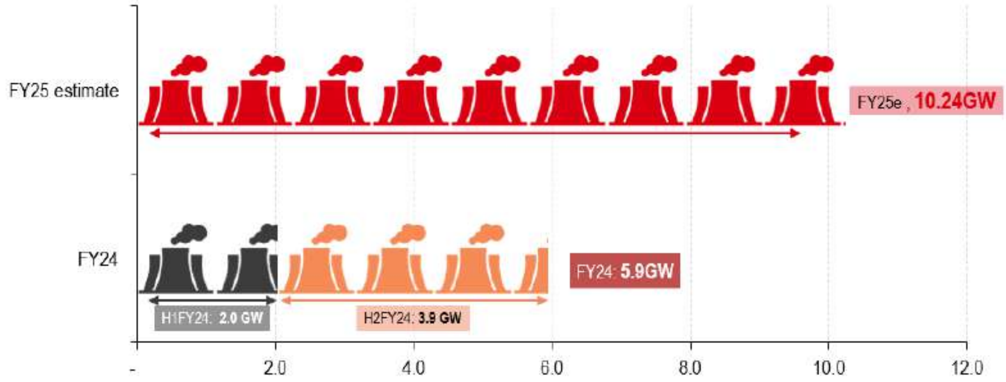
The ministry of power has closely monitored the power situation and took regular and multiple steps to ensure minimal power shortages. Some of the notable steps are:

- It pushed out maintenance of power plants from peak season to non-peak season and extended Section 11 implementation until September 2024

- Ensured adequate availability of coal for existing power plants
- Expedited capacity additions
- Took policy decisions which allowed harnessing surplus power from captive power plants and allowed un-requisitioned power from plants in power exchanges
- Operationalised gas-based capacity under Section 11

Significant new thermal capacity has been commissioned post the shortage period and large capacity addition is planned for FY25 as well
Our calculations suggest that c4.1GW of thermal power capacity has been commissioned post Sep 2023 till Mar 2024 and c10.2GW of additional capacity is expected to be commissioned in full year FY25. Our estimates are still conservative compared to the ministry of power which expects 15.4GW to be commissioned in FY25.

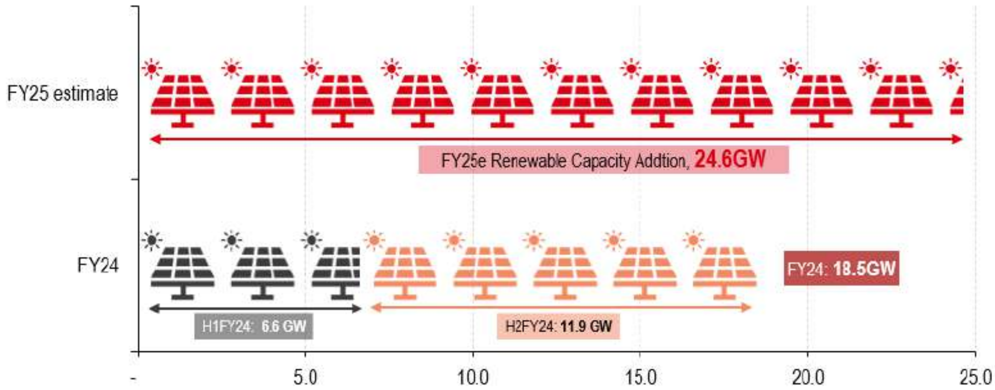
Thermal capacity addition − FY24 and FY25 estimates



Source: Elekore, HSBC estimates

Similarly, significant renewable capacity commissioned in 2HFY24 and is set to pick up pace from FY25 onwards
Owing to a fall in module prices, renewable power developers pushed their capacity commissioning from FY23 to FY24 and a large part of it was back-ended. Similarly, FY25 will see increased capacity commissioning as some bit of spillover from FY24 and a lot of capacity will endeavour to be commissioned before 30 June 2025 to benefit from the waiver of Inter State Transmission System (ISTS) transmission charges.

Renewable capacity addition – FY24 and FY25 estimates



Source: Elekore, HSBC estimates

Our estimates are still conservative compared to senior bureaucrats who are indicating 30-35GW of renewable capacity commissioning during FY25 (source: Economic Times, 18 June 2024).

In addition, some of the new bids, especially on fixed dispatch mechanisms and battery-based storage, are now beginning to provide renewable, firm and affordable power. We expect this to pick up pace in the form of power purchase agreements being signed.

All this will assuage the near-term noise around power shortages which we think can result in unwinding some of the valuation premium commanded by power stocks.

Structurally, we remain constructive on the sector, but sector growth needs to be viewed in a calibrated way

We highlight a few points which we think investors need to carefully appreciate before building blue sky scenarios.

Electricity demand growth is driven by ability of discoms to pay rather than retail customers asking for power
Discoms can buy short-term power to tide over periods of excess demand, especially during sensitive periods like "life threatening summers", elections, etc. The short-term power demand will likely be erratic.

The ability to sustainably ask for higher power will depend on the discoms' ability to pay for power and hence their financial strength. While discoms are gradually seeing improvement in their financial situation, on an aggregate basis, there is still a cash loss on every unit of power sold. We think this will likely limit the pace of growth of demand.

Financial losses of state-owned discoms (INR)

	FY20	FY21	FY22	FY23
Average Cost of Supplying Power (ACS)	7.4	7.7	7.6	8.6
o/w Cost of Procuring Power	5.8	5.9	5.8	6.6
Average Revenue Realized (ARR)	6.8	7.1	7.3	7.8
o/w Revenue from Sale of Power	5.0	4.9	5.1	5.5
o/w Tariff Subsidy	1.3	1.4	1.4	1.5
o/w Regulatory Income & Revenue Grant Under UDAY	0.3	0.1	0.0	0.2
Per unit loss	0.6	0.6	0.3	0.7
Total Financial Loss (INRb)	(602.3)	(769.0)	(165.8)	(688.3)

Source: Power Finance Corporation – Performance of Distribution Utilities
Note: Data from 2020-21 onwards does not include Odisha, and Dadra & Nagar Haveli and Daman and Diu since their distribution function was privatised in 2020-21. Data for Ladakh is available from 2021-22 onwards. Data for Jammu and Kashmir is not available. The Delhi Municipal Council Distribution Utility has been included from 2020-21 onwards. FY22 fall in losses was due to fall in imported coal prices and lower share of imported coal used in the power sector.

Signing of PPA rather than announcements will drive future capacity additions
The Indian government is announcing large targets for capacity commissioning, but we think ultimate commissioning will depend on state discoms signing power purchase agreements (PPAs).

We think a lot of thermal capacity will be commissioned by NTPC under section 62 of the Electricity Act yet some of the discoms might resist at times.

In fact, a recent article by the Indian Express dated 1 April 2024 highlighted the reluctance of Telangana's government to sign a PPA for NTPC-Ramagundam Phase I (3 X 800MW) plant, citing high power costs. While this is a part of original agreements signed pre-2011, and in our view will most likely be signed, the reluctance highlights the risk for new coal projects.

Similarly, a recent announcement of ordering Coal India-led thermal plants of 30GW has increased optimism in the market that new thermal plants will be commissioned. We believe that for these plants to be commissioned, it will need to find new customers.

Also, getting environment approvals also is a time-consuming exercise.

Similarly, while various government agencies cumulatively held auctions of renewable capacity worth 62GW during FY24, a large part of this capacity awaits signing PPA.

Trend of renewable auctions

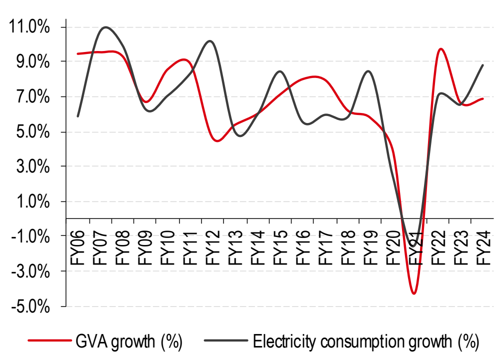
Source: Elekore, HSBC. Note: Our capacity is based on contracted capacity instead of installed capacity.

Power demand will grow but don't ignore energy efficiency initiatives

There is a strong correlation between electricity demand growth and gross value added (GVA) growth, and it is often considered likely that electricity demand growth can exceed GVA growth in initial years as well.

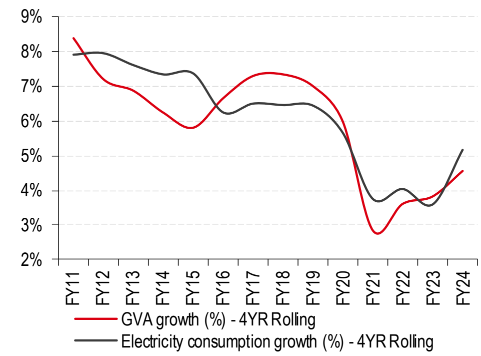
We believe increased electrification is increasing demand for electricity but at the same time use of energy efficient equipment shaves off extra demand.

GVA growth vs Electricity consumption growth (%)



Source: Elekore, HSBC.
Note: GVA growth rate for FY24 is based on HSBC estimates.

GVA growth vs Electricity consumption growth (%) – 4-yr rolling



Source: Elekore, HSBC.
Note: GVA growth rate for FY24 is based on HSBC estimates.

The Bureau of Energy Efficiency (BEE) has implemented many initiatives like standards and labelling (S&L), Energy Conservation Building Code (ECBC) and the Perform Achieve and Trade (PAT) scheme to help reduce energy intensity over FY17-23. According to the BEE, as a result of its efforts during FY17-23, adoption of energy savings schemes and programmes resulted in c250bn units or 19.28% of electricity requirement across various sectors in FY23.

Similar and more targeted and new energy efficiency initiatives like replacing old fans with energy efficient fans will also save energy. We note that the residential segment constitutes c25% of India's total power demand and 40% of electricity consumption is accounted for by fans alone. As per Prayas Energy's 2020 survey, only 3% of Indian households have star-rated fans. Traditionally, average power consumption per fan was 72-80watts but the new energy efficient fans consume 30-35watts of power and thus reduce demand by 50%. According to a press release from the Ministry of Power dated 2 Nov 2023, EESL plans to distribute 10mn energy efficient fans initially.

This after its success in replacing incandescent lights with LED lights which resulted in replacing 360mn LED bulbs across India and thus shaving off 12GW of power demand.

Indian demand will face bigger issues of getting much 'peakier' rather than increasing in absolute quantum

We believe more than the absolute increase in electricity demand, the bigger concern for the Indian power market is that demand is getting 'peakier', especially during summer seasons. This has created a shortage of capacity at times and raised concerns on power shortages.

It is also pertinent to note that while demand is getting 'peakier' due to climate change, peak demand is also witnessed during sunny afternoon hours which can be addressed by solar power and to some extent can be addressed by battery storage.

Impact of data centre on energy demand is overblown in near term

India's current data centre capacity is estimated to be c1GW (as per CBRE) and is expected to increase to c3.3GW by 2028. This has to be looked in the context of peak demand of India at 250GW and total power capacity of 426GW. Further, our discussions suggest that most of the new DC capacity is expected to take its load from RE either via the open access route or captive route, rather than rely on discoms.

Demand side management (DSM) initiatives will improve utilisation of existing capacity

The Ministry of Power issued the Electricity (Rights of Consumers) Amendment rules 2023, dated 14 June 2023, wherein the rule of time of the day tariff has also been specified. This has mandated implementation for customers with maximum demand more than 10kW. As per the rules, the tariff during solar hours shall be 20% less than the normal tariff and during peak period it shall not be less than 1.2x the normal tariff.

Individual states are also implementing demand side management (DSM) with a focus on time-of-day tariffs and energy efficiency at their own levels with varying degrees. Some of the various DSM strategies are as follows: (1) TNERC directed discoms to charge 20% of LT consumers daily consumption at a 25% surcharge in the absence of ToD (time-of-day) meters. (2) Collaboration with EESL for load research and load surveys. (3) Bihar has notified ToD for industrial and commercial customers and is evaluating it for the agricultural sector as well. (4) Maharashtra has taken the most cognisance of ToD and has made significant changes. (5) Gujarat's implementation of ToD has resulted in some industries moving to night time.

Applicability of time-of-day tariffs by various state discoms

	Domestic	Commercial		Industrial		LT Others	HT/EHT others
		LT	HT	LT	HT/EHT		
Uttar Pradesh					✓		✓
Delhi	✓	✓	✓	✓	✓	✓	✓
Maharashtra		✓	✓	✓	✓	✓	✓
Gujarat			✓		✓	✓	✓
Karnataka			✓	✓	✓		✓
Tamil Nadu						✓	✓
Bihar				✓	✓		✓
Assam					✓		✓

Source: CEEW report – "How can India Scale up electricity demand side management?", HSBC

However, there is still a lot of room to improve. Some states still don't have DSM regulations in place. Currently, there is a lack of adequate capacity, resources and expertise to implement DSM within discoms. The lack of monitoring, transparency and enforcement by SERCs is still resulting in sub-par implementation of DSM.

Also, the PM-KUSUM scheme oriented towards agriculture is also helping in shifting the load curve towards daytime instead of night-time irrigation.

We believe that with the notification of the above-mentioned rules, improvement in the pace of implementation of KUSUM and rooftop schemes, peak demand will also likely shift more towards solar hours.

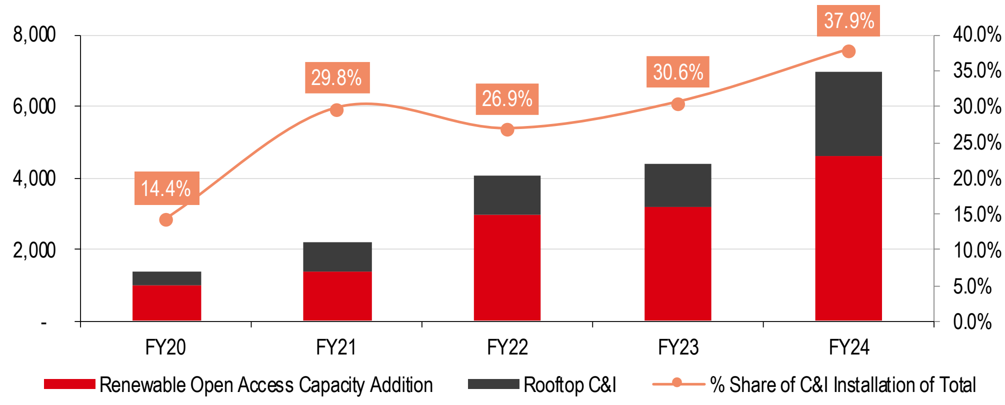
Captive RE plants will lead and take over the burden from discoms to supply power

Further, we think renewable will take up the load of meeting a large part of captive demand for power as corporates seek green energy to meet their ESG norms and RE100 targets. This segment defined as commercial and industrial (C&I) is likely to be the major driver of RE demand.

Recent increases in state discom level tariffs will also incentivise more corporates to adopt their own renewable captive power at almost fixed prices which are lower than discom prices which are often escalating.

As of March 2024, the C&I segment accounted for 23.8GW of capacity as per JMK Research. The pace of capacity addition has especially increased from FY20 onwards where the share of C&I RE installations has grown from 14% in FY20 to 37.9% in FY24. One of the reasons for this increase is also an increase in average size of customers from sub-10MW scale to 20-100MW scale and some even as large as 200MW projects which is attracting the interest of even larger developers.

Share of C&I installations



Source: JMK Research, HSBC

India power estimates

	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25e	FY26e	FY27e	FY28e	FY29e	FY30e
Installed capacity (GW)																							
Total	**144.3**	**149.2**	**160.7**	**175.1**	**200.3**	**223.9**	**248.6**	**274.9**	**305.2**	**326.8**	**344.0**	**356.1**	**370.1**	**382.2**	**399.5**	**416.1**	**442.0**	**478.9**	**515.8**	**553.2**	**590.7**	**630.4**	**671.3**
o/w Thermal	91.9	93.7	102.5	112.8	131.6	151.5	168.3	188.9	210.7	218.3	222.9	226.3	230.6	234.7	236.1	237.3	243.2	253.5	261.3	263.5	267.4	272.2	276.2
o/w Coal	76.0	77.6	84.2	93.9	112.0	130.2	145.3	164.6	185.2	192.2	197.2	200.7	205.1	209.3	210.7	211.9	217.6	227.8	235.6	237.9	241.8	246.6	250.6
o/w Gas	14.7	14.9	17.1	17.7	18.4	20.1	21.8	23.1	24.5	25.3	24.9	24.9	25.0	24.9	24.9	24.8	25.0	25.0	25.0	25.0	25.0	25.0	25.0
o/w Diesel	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.0	0.8	0.8	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
o/w Non-thermal	52.4	55.5	58.2	62.3	68.7	72.3	80.3	86.0	94.5	108.5	121.1	129.8	139.5	147.4	163.4	178.8	198.8	225.5	254.5	289.7	323.3	358.2	395.1
o/w Nuclear	4.1	4.1	4.6	4.8	4.8	4.8	4.8	5.8	5.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	8.2	8.2	8.9	10.6	13.0	14.0	15.0
o/w Hydro	35.9	36.9	36.9	37.6	39.0	39.5	40.5	41.3	42.8	44.5	45.3	45.4	45.7	46.2	46.7	46.9	46.9	49.0	50.3	56.7	57.8	58.6	59.4
o/w Renewable	12.4	14.5	16.8	20.0	24.9	28.1	35.0	39.0	45.9	57.3	69.0	77.6	87.0	94.4	109.9	125.2	143.6	168.2	195.3	222.4	252.5	285.6	320.7
o/w Wind	8.8	10.2	11.8	14.2	17.4	19.1	21.0	23.4	26.8	32.3	34.0	35.6	37.7	39.2	40.4	42.6	45.9	50.4	55.4	60.4	65.4	70.4	75.4
o/w Solar	0.0	0.0	0.0	0.0	0.9	1.7	2.6	3.7	6.8	12.3	21.7	28.2	34.6	40.1	54.0	66.8	81.8	101.8	123.8	145.8	170.8	198.8	228.8
o/w other renewables	3.6	4.2	5.0	5.8	6.6	7.3	11.3	11.9	12.4	12.7	13.3	13.8	14.7	15.1	15.5	15.7	15.9	16.0	16.1	16.2	16.3	16.4	16.5
Installed capacity growth (%)	***9.1%***	***3.4%***	***7.7%***	***9.0%***	***14.3%***	***11.8%***	***11.0%***	***10.6%***	***11.0%***	***7.1%***	***5.2%***	***3.5%***	***3.9%***	***3.3%***	***4.5%***	***4.1%***	***6.2%***	***8.4%***	***7.7%***	***7.3%***	***6.8%***	***6.7%***	***6.5%***
New capacity added (GW)																							
Total	12.0	4.9	11.5	14.5	25.1	23.6	24.7	26.3	30.3	21.7	17.2	12.1	14.0	12.0	17.3	16.6	25.9	37.0	36.9	37.4	37.4	39.7	40.9
o/w Thermal	5.9	1.8	8.7	10.4	18.8	19.9	16.7	20.6	21.8	7.7	4.6	3.4	4.3	4.1	1.4	1.2	5.9	10.2	7.8	2.3	3.9	4.8	4.0
o/w Coal- Net	4.9	1.6	6.5	9.7	18.1	18.2	15.1	19.4	20.5	7.0	5.0	3.5	4.4	4.2	1.4	1.2	5.7	10.2	7.8	2.3	3.9	4.8	4.0
o/w Non-thermal	6.1	3.1	2.8	4.1	6.4	3.7	8.0	5.7	8.5	14.0	12.6	8.7	9.7	7.9	16.0	15.4	20.0	26.7	29.1	35.2	33.6	34.9	36.9
o/w Nuclear	0.2	0.0	0.4	0.2	0.0	0.0	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.7	1.7	2.4	1.0	1.0
o/w Hydro	1.3	1.0	0.0	0.7	1.4	0.5	1.0	0.7	1.5	1.7	0.8	0.1	0.3	0.5	0.5	0.1	0.1	2.1	1.3	6.4	1.1	0.8	0.8
o/w Renewable	4.6	2.1	2.3	3.2	4.9	3.2	6.9	4.0	7.0	11.3	11.8	8.6	9.4	7.4	15.5	15.3	18.5	24.6	27.1	27.1	30.1	33.1	35.1
o/w Wind		1.5	1.6	2.4	3.2	1.7	2.0	2.3	3.4	5.5	1.8	1.6	2.1	1.6	1.1	2.3	3.3	4.5	5.0	5.0	5.0	5.0	5.0
o/w Solar		0.0	0.0	0.0	0.9	0.8	0.9	1.1	3.0	5.5	9.4	6.5	6.4	5.5	13.9	12.8	15.0	20.0	22.0	22.0	25.0	28.0	30.0
o/w other renewables		0.6	0.8	0.8	0.8	0.7	4.0	0.5	0.5	0.3	0.6	0.5	0.9	0.4	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1

Source: Elekore, HSBC estimates

Gross Generation (bn, units)	**FY08**	**FY09**	**FY10**	**FY11**	**FY12**	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25e**	**FY26e**	**FY27e**	**FY28e**	**FY29e**	**FY30e**
Total	704	747	805	852	928	969	1,032	1,122	1,173	1,241	1,308	1,376	1,389	1,382	1,492	1,624	1,736	1,865	1,969	2,080	2,196	2,333	2,478
Gross Energy Gen(Domestic Utilities)	723	741	800	845	922	964	1,027	1,117	1,168	1,235	1,303	1,372	1,383	1,373	1,484	1,618	1,731	1,860	1,965	2,075	2,192	2,328	2,473
Less: Aux Consumption	(46)	(47)	(51)	(53)	(56)	(64)	(70)	(76)	(79)	(81)	(82)	(84)	(83)	(80)	(87)	(103)	(111)	(119)	(126)	(133)	(140)	(149)	(158)
Net Energy Generated	**677**	**694**	**749**	**792**	**866**	**900**	**956**	**1,041**	**1,088**	**1,154**	**1,221**	**1,288**	**1,300**	**1,293**	**1,398**	**1,515**	**1,621**	**1,741**	**1,839**	**1,942**	**2,051**	**2,179**	**2,315**
Add: Non-Utility (excess) + Imports	13	14	14	20	16	21	18	14	16	9	11	28	32	31	25	24	30	30	30	30	30	30	30
Net Available for Supply	**690**	**708**	**764**	**812**	**881**	**921**	**974**	**1,054**	**1,104**	**1,163**	**1,233**	**1,316**	**1,333**	**1,324**	**1,423**	**1,539**	**1,651**	**1,771**	**1,869**	**1,972**	**2,081**	**2,209**	**2,345**
Less: Sold to other countries												(8)	(9)	(10)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)
Net Available for Supply	**690**	**708**	**764**	**812**	**881**	**921**	**974**	**1,054**	**1,104**	**1,163**	**1,233**	**1,307**	**1,323**	**1,314**	**1,414**	**1,529**	**1,641**	**1,762**	**1,860**	**1,963**	**2,072**	**2,200**	**2,335**
Less: Technical Loss at central grid	(24)	(17)	(17)	(23)	(24)	(13)	(15)	(24)	(13)	(28)	(28)	(40)	(39)	(43)	(40)	(25)	(10)	(35)	(37)	(39)	(41)	(44)	(47)
Energy Availability as per discom	**666**	**691**	**747**	**788**	**858**	**909**	**960**	**1,031**	**1,091**	**1,135**	**1,205**	**1,268**	**1,284**	**1,271**	**1,374**	**1,504**	**1,631**	**1,726**	**1,822**	**1,924**	**2,031**	**2,156**	**2,289**
Energy Requirement as per discom	**739**	**777**	**831**	**862**	**937**	**996**	**1,002**	**1,069**	**1,114**	**1,143**	**1,213**	**1,275**	**1,291**	**1,276**	**1,380**	**1,512**	**1,635**	**1,731**	**1,827**	**1,929**	**2,036**	**2,161**	**2,294**
Less: Commercial losses at discom	(164)	(163)	(177)	(171)	(185)	(200)	(208)	(217)	(227)	(221)	(232)	(230)	(232)	(229)	(233)	(254)	(268)	(275)	(282)	(288)	(293)	(311)	(331)
Less: AT&C Losses	(188)	(180)	(194)	(195)	(208)	(212)	(223)	(240)	(241)	(249)	(259)	(270)	(271)	(272)	(272)	(280)	(278)	(311)	(319)	(327)	(335)	(355)	(377)
Net sold to ultimate consumers	**502**	**528**	**570**	**617**	**673**	**709**	**752**	**814**	**863**	**914**	**973**	**1,046**	**1,052**	**1,042**	**1,141**	**1,250**	**1,363**	**1,455**	**1,546**	**1,641**	**1,742**	**1,850**	**1,964**
Growth rate (%)	10.2%	5.0%	8.0%	8.3%	9.1%	5.3%	6.1%	8.3%	6.1%	5.9%	6.5%	7.4%	0.7%	-1.0%	9.6%	9.5%	9.1%	6.8%	6.2%	6.2%	6.2%	6.2%	6.2%
Add: Captive Energy Consumed	76	87	88	96	112	115	122	134	138	147	150	172	196	189	175	153	164	179	195	213	232	253	275
Total Electricity Consumed	**578**	**615**	**658**	**713**	**785**	**824**	**874**	**948**	**1,001**	**1,061**	**1,123**	**1,218**	**1,248**	**1,230**	**1,317**	**1,403**	**1,527**	**1,634**	**1,741**	**1,854**	**1,974**	**2,103**	**2,239**
Electricity consumed by country (%)	*9.9%*	*6.3%*	*7.1%*	*8.4%*	*10.1%*	*5.0%*	*6.0%*	*8.5%*	*5.6%*	*6.0%*	*5.9%*	*8.4%*	*2.5%*	*-1.4%*	*7.0%*	*6.6%*	*8.8%*	*7.0%*	*6.5%*	*6.5%*	*6.5%*	*6.5%*	*6.5%*
GVA growth (%)	*9.3%*	*6.7%*	*8.6%*	*8.9%*	*4.6%*	*5.4%*	*6.1%*	*7.2%*	*8.0%*	*8.0%*	*6.2%*	*5.8%*	*3.9%*	*-4.2%*	*9.4%*	*6.7%*	*6.9%*						

Source: Elekore, HSBC estimates

	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25e	FY26e	FY27e	FY28e	FY29e	FY30e
Peak Demand (GW)	**109**	**110**	**119**	**122**	**130**	**135**	**136**	**148**	**153**	**160**	**164**	**177**	**184**	**190**	**203**	**216**	**243**	**260**	**277**	**295**	**314**	**335**	**357**
Growth (%)	8.1%	0.9%	8.5%	2.6%	6.3%	4.2%	0.3%	9.0%	3.5%	4.0%	2.8%	7.9%	3.8%	3.5%	6.7%	6.3%	12.7%	7.0%	6.5%	6.5%	6.5%	6.5%	6.5%
5 year CAGR					5.2%	4.5%	4.4%	4.5%	4.6%	4.2%	3.9%	5.4%	4.4%	4.4%	4.9%	5.6%	6.6%	7.2%	7.8%	7.8%	7.8%	6.6%	6.5%
10 year CAGR									5.1%	4.7%	4.2%	4.9%	4.4%	4.5%	4.6%	4.8%	6.0%	5.8%	6.1%	6.3%	6.7%	6.6%	6.9%
PLFs(%) (Calculated)																							
Total	58%	58%	59%	58%	56%	52%	50%	49%	46%	45%	45%	45%	44%	42%	44%	45%	46%	46%	45%	44%	44%	44%	43%
Thermal	72%	72%	75%	71%	66%	61%	57%	56%	54%	53%	54%	54%	52%	51%	54%	58%	63%	63%	62%	62%	63%	64%	65%
o/w Coal	76%	77%	77%	72%	68%	65%	62%	62%	58%	57%	58%	59%	56%	54%	59%	64%	69%	69%	68%	68%	68%	69%	70%
o/w Gas	56%	57%	69%	66%	59%	41%	24%	21%	23%	22%	23%	23%	22%	23%	17%	10%	12%	12%	12%	12%	12%	12%	12%
Nuclear	48%	41%	49%	64%	77%	78%	82%	78%	74%	68%	65%	64%	78%	72%	79%	76%	76%	76%	76%	76%	76%	76%	76%
Hydro	40%	35%	32%	35%	39%	33%	38%	36%	33%	32%	32%	34%	39%	37%	37%	40%	33%	37%	37%	37%	37%	37%	37%
Renewable									18%	18%	18%	20%	19%	19%	19%	20%	19%	21%	22%	22%	23%	23%	24%
Peak as % of Thermal	122.4%	118.3%	121.5%	113.6%	106.4%	95.7%	85.0%	83.0%	76.8%	74.4%	74.4%	78.8%	80.5%	81.7%	86.2%	91.2%	101.3%	104.8%	107.7%	112.5%	118.4%	124.1%	130.1%
Peak as % of Coal	147.9%	142.9%	147.3%	137.3%	126.3%	111.8%	98.7%	95.6%	87.7%	84.6%	84.3%	89.0%	90.6%	91.8%	96.7%	102.2%	113.3%	116.9%	119.6%	124.7%	131.1%	137.1%	143.5%
Peak as % of Thermal + Hydro + Nuclear	84.9%	82.4%	85.5%	81.8%	78.7%	73.0%	66.4%	65.9%	61.9%	60.3%	60.3%	64.0%	65.5%	66.6%	70.3%	74.4%	82.6%	85.5%	87.8%	90.7%	94.0%	98.1%	102.6%

Source: Elekore, HSBC estimates

ISTS transmission capacity plan is premised on India achieving 500GW of renewable capacity, but the current rate is not suggestive of this

The draft National Electricity Plan (Volume-II: Transmission) lays down a detailed plan for FY22-27 and a prospective plan for FY27-32. In addition, CTUIL continues to update a rolling plan for Inter State Transmission System (ISTS) for a period till FY29. This was last published in March 2024.

As per NEP (Vol-I), installed generation capacity is expected to be 609.6GW by FY27. During transmission planning, an additional 40GW of renewable power and Battery Energy Storage System (BESS) is considered, taking the expected capacity to 650GW. This is 17% higher than our estimate of 553GW. Further, NEP Vol-II envisages a transmission capacity to meet total power generation capacity of 900GW including 507GW of renewables and 26.6GW of pumped storage by 2032; in addition, 51.5GW of BESS.

NEP Vol-II which is planned on 650GW capacity expects 710,940MVA of transformation capacity needs to be added from FY22-27 at the all India level on existing capacity of 1,070,950MVA (as of Mar 2022). This will entail a total spend of INR4.75trn comprising of INR3.14trn for ISTS and INR1.61trn of Intra STS from FY22-27. Power Grid is largely a play on ISTS rather than Intra ISTS.

As per the CTUIL rolling plan, INR2.946trn is expected to be spent by FY29 on ISTS which will translate into annualised capex of cINR590bn. However, this capex is done with the expectation of 47GW of annual capacity addition for RE power from FY25 onwards in addition to 36.5GW of storage capacity. Just for context, total RE capacity installed in FY24 was 18GW and we expect 24.6GW to be installed in FY25 and government officials are optimistic of 30-35GW of installation in FY25 (source: Economic Times, 18 June 2024).

Total capex (under construction and under planning stages) – INR bn

FY	WR	SR	NR	ER	NER	Total
FY24	14	7	18	0	13	52
FY25	124	62	242	62	11	500
FY26	212	83	330	8	2	635
FY27	261	155	261	4	6	687
FY28	-	101	-	-	-	101
FY29	461	115	397	-	-	972
Total	**1,070**	**522**	**1,247**	**74**	**33**	**2,946**

Source: CTUIL, HSBC. Note: WR = western region, SR = southern region, NR = northern region, ER = eastern region, NER = North-eastern region.

ISTS transmission system will continue to grow but don't forget inter regional change in flow of power which can increase utilisation

Due to the intermittent and variable nature of RE, the loading pattern of the Indian grid is likely to change diurnally as well as seasonally. As per reports by CTUIL, power flow on all inter regional corridors except the eastern to southern region is observed in **both** directions. For example, in case of western region (WR) to northern region (NR) corridor, 16GW of power flows from WR to NR in summer evening peaks while 14GW flows from NR to WR in a Winter Solar max scenario.

Further transmission lines associated with thermal and hydro generation will be lightly loaded during high RE scenarios.

Ending ISTS waiver will democratise renewable installation

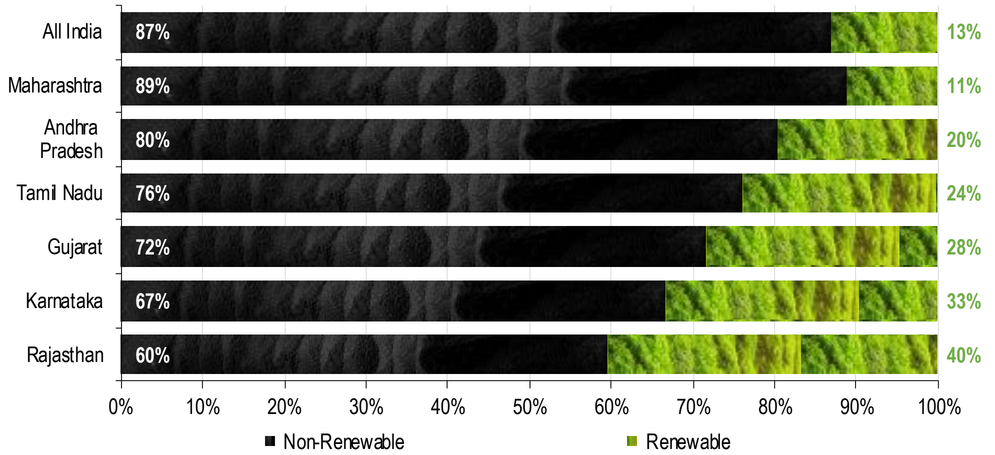
Waiver of ISTS charges is available till 30 June 2025. This waiver on an average INR1-1.5/kWh of power cost. Also, in the GNA regime, the beneficiaries will have to pay for transmission charges. While industry participants believe that this waiver is likely to be further extended, we believe the government has already extended it since 2019. Also, recent notifications by the government give no comfort of extension but some specific relief in case of delay on the part of the transmission authority.

Once this waiver ends, it will encourage RE developers to install capacities closer to the end consumer and sacrifice some generation rather than setting up the majority of capacities in Rajasthan, Gujarat, Karnataka, Maharashtra and incur high transmission costs. This will potentially reduce some burden on the ISTS system as well.

C&I customers rely on the benefit of energy banking given by the state transmission utility. However, this benefit is denied to ISTS-based projects. Currently due to ISTS waiver, a lot of end consumers prefer ISTS renewable projects. Post the waiver going away, the benefit of energy banking with STUs will encourage a higher number of Intra STS projects as well.

Further, most new industries are also finding opportunities in RE progressive states like Gujarat, Tamil Nadu, Karnataka and Andhra Pradesh.

Share of renewable energy in total generation (FY24) (%)



Source: Elekore, HSBC

Longer term, battery will result in improved utilisation of transmission lines and necessitate lower new capacity

We believe as share of battery installation increases, the utilisation potential of transmission lines also increases. We see increased bidding for pure BESS tenders and increased share of complex, peak power and load targeted renewable tenders which are being won at very attractive costs. See our last report, *Forget intermittency – renewable energy when you want*, dated 14 March 2024.

Battery prices have also corrected which will further encourage the use of battery power even for C&I plants which have a higher ability to pay and often get penalised on banking and open access charges, etc. We expect this to drive much faster commissioning of BESS and thus higher utilisation of transmission lines. This can potentially result in lower than planned capex on transmission. Usage of battery power will also increase the ability of the Indian power system to meet peak power demand and give relief to thermal power systems.

Schemes like PM-KUSUM and PM-Surya Ghar will localise and decentralise RE generation

While we acknowledge the challenges of implementation of the PM-KUSUM and PM-Surya Ghar schemes, but we believe that learnings from the PM-KUSUM scheme are now incorporated in the PM-Surya Ghar scheme. Also increased manufacturing capacity of domestic modules and cells will also enable widespread and affordable spread of RE generation capacity. We expect this to have increased need for better state level transmission infrastructure but will relieve the burden of ISTS infrastructure to some extent.

Maharashtra government recently issued letter of award to 95 project developers for 9GW of distributed solar capacity dedicated to supplying daytime electricity supply to agriculture as a part of PM-KUSUM C component.

Execution will also be challenging
According to a report by Wood Mackenzie (dated April 2024, titled "Supply Shortage and High Lead Times"), the lead time for procurement of a large transformer (both substation power and generator step up) has risen from 120 weeks (two years to back) to 210 weeks globally. Further the prices of the same have risen by 60-80% since January 2020. Interestingly, some of the recent contracts on transmission capacity mandate two years of commissioning.

The above analysis has implications for our stock calls.

Power Grid Corporation of India (PWGR IN, Downgrade to Reduce, INR270)

Why is the stock up?
PWGR is often considered the proxy play on India's renewable capacity growth. FY24 saw a big surge in interstate transmission auctioning which investors are extrapolating from and there is an expectation of further auctions of INR1trn worth of ISTS over next one year. Further, investors expect the overall transmission capex to be higher than that currently announced by transmission planning authority.

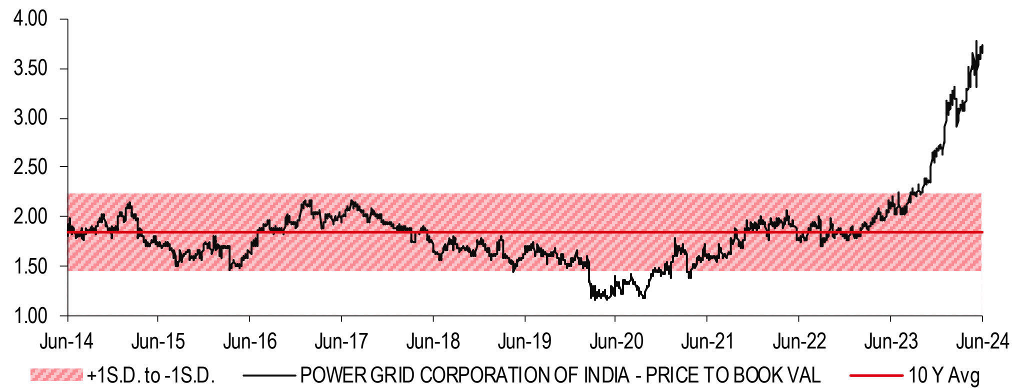
What are investors missing?
(1) **Extrapolating the pace of auctions**. In our view, CY23 benefitted from under-auctioning during COVID-19 impacted years of CY21 and CY22, while the CY24 auctioning trend will still benefit from under-capacity being built compared to renewable plans. We also believe that the transmission authority will wait for approvals and progress on existing capacity before it initiates auctioning out transmission projects. Projects linked to pumped storage will face further delay.

(2) **Over-estimating transmission capex**. **(a)** The current transmission plan is premised on India achieving 500GW of renewable capacity, which we believe is an ambitious task based on the current run rate of execution. Hence, there is a risk of lower capex than planned. **(b)** The Central Electricity Authority has waived ISTS charges for renewable projects commissioned by 30 June 2025. Post the expiry of waiver, customers will find it more profitable to procure from projects closer to them and on STU which will allow them to save transmission tariffs and benefit from energy banking. **(c)** The success of PM-KUSUM and solar rooftop schemes will also likely democratise transmission. **(d)** Recent bids on pure battery are now reflecting INR3.7-4.3/kWh which makes renewable extremely attractive. Improving penetration of batteries will result in improved utilisation of transmission and reduce the need to overbuild transmission.

(3) **Overestimating the role of PGCIL and profitability of transmission projects**. **(a)** India has built a strong ISTS capacity during the last decade and PGCIL will have a limited role on the intra-STS side. This decade needs connectivity to new RE generation and upgrades to state level transmission. **(b)** While the Tariff Policy of 2016 states that all transmission projects above a certain threshold need to be executed by TCBC, the liberty of setting up the threshold was given to State Electricity Regulatory Commissions. We have seen some recent examples of SERCs increasing some threshold limits like Maharashtra Electricity RC revising it from INR2bn to INR5bn. Recent directions from Punjab and Andhra Pradesh ERCs also advocate higher thresholds. Rajasthan's ERC has set a limit of INR2.5bn and now even Gujarat ERC is advocating for a higher limit from the initial threshold of INR1bn to INR2.5bn. **(c)** Under the new bidding schemes, most of the projects are envisaged to be commissioned within 24 months vs 36-48 months earlier. Getting Right of Way (RoW) is often a difficult process for large projects and impacts profitability.

Investment view: Based on our above analysis, we downgrade our rating on the stock to Reduce from Hold. The stock has run up c75% in the last one year (vs Nifty Index +27.3%) and trades at 3.7x PB which is 4.8std dev higher than the last 10 years' average. Our detailed sum of the parts valuation (as explained below) generates a fair value target price of INR270 which implies 18.9% downside.

PWGR Price to / 12M fwd book (x)



Source: Refinitiv Datastream, HSBC

We increase our near-term estimates on new TBCB project wins resulting in FY25-26e EPS rising by 3.4% to 7.5%

Change in estimates (INRbn)

	New			Old			Change		
	FY25e	FY26e	FY27e	FY25e	FY26e	FY27e	FY25e	FY26e	FY27e
Total sales	429	440	453	435	440	na	-1.4%	0.0%	na
Reported EBITDA	375	384	395	378	381	na	-0.9%	0.8%	na
Reported EBIT	247	253	260	243	242	na	1.5%	4.3%	na
Profit before tax	195	208	221	188	194	na	3.5%	7.6%	na
Reported Net Income	161	172	182	155	160	na	3.4%	7.5%	na
Reported EPS	17.3	18.5	19.6	16.7	17.2	na	3.4%	7.5%	na

Source: HSBC estimates. Note: we introduce our FY27 estimates in this report. For full estimates, please refer to the Forecast & Valuation page at the back of the report.

Valuation and risks

Power Grid Corporation PWGR IN

Reduce (Downgrade from Hold)

Current price: **INR332.95**

Target price: **INR270.00**

Up/downside: **-18.9%**

Valuation

We value PWGR using a sum-of-the-parts approach.

- We value PWGR's core FY26e (FY25e earlier) regulated equity at a PB of 1.7x (1.6x earlier). This valuation multiple is based on an expected core return on regulated equity (16%, unchanged) cost of equity and an increased long-term growth rate of 3.0% (unchanged). Our cost of equity of 10.5% (11% earlier) is based on a risk-free rate of 3.5% (unchanged), inflation premium of 2.0% (unchanged), risk premium of 5.0% (unchanged), and beta of 1.0x (1.1x earlier). We value TBCB projects using a DCF methodology using a WACC of 7.2% based on 10.5% cost of equity and 8% cost of debt and a terminal multiple of 16.5x EBITDA (earlier we used a 3.0x PB multiple to value the TBCB business).

- We continue to value the equity invested in new projects and cash at a PB of 1x, and the consultancy business at a PE of 15x for FY26e (FY25e earlier), in line with peer multiples.

Summing these fair values, we reach a total fair value of INR294.1 (INR195 earlier). We then discount this by nine months to arrive at our TP of INR270 (from INR180 previously; earlier we discounted the value by six months). Our target price implies 18.9% downside. We downgrade our rating to Reduce from Hold as we expect reduced profitability from newer projects.

Risks to our view

Upside risks: A pick-up in momentum for PSP projects giving a push to transmission requirements; a sharp pick-up in offload of intra-state transmissions build up to the private sector; and increased pace of renewable capacity commissioning.

Priced at 24 June 2024
Source: HSBC estimates

NTPC (NTPC IN, Downgrade to Hold, TP INR355)

Why is the stock up?
Investors expect power demand to remain high and NTPC will be one of the very few entities which will continue to add thermal power capacity. Further, NTPC is also set to grow its renewable business from current 3.5GW operational capacity to 60GW by 2032 with NTPC announcing that 20GW of capacity is already tied up. Investors also expect NTPC to monetise its renewable business via an initial public offering (IPO) and unlock greater value.

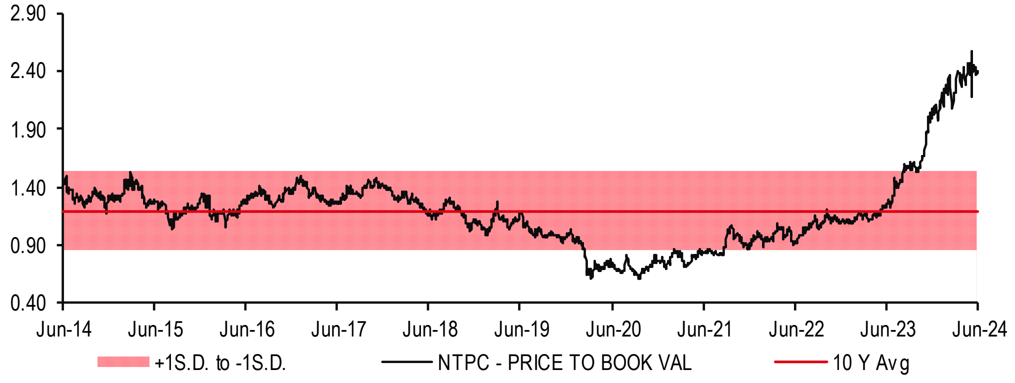
What are investors missing?
(1) Execution challenges including signing up of PPAs to project delivery. Also, some customers have also been reluctant to sign the final PPA given the rising costs for thermal plants and falling costs of load following RE plants. Without a signed PPA, NTPC is unlikely to start work on commissioning thermal power plants. Hence, the pace of capacity addition will be driven by PPAs rather than government announcements.

(2) Long gestation period will accelerate opening of alternate power generation options. Historically, executing thermal projects has seen delays which increase the cost for consumers. We expect this trend to continue as BHEL remains the sole provider of thermal power systems currently. This will delay capitalisation of assets consequently earnings growth. This will also encourage discoms to seek alternate sources of power.

(3) Monetisation of renewable power may not necessarily be accretive. We believe monetisation of the renewable business is a necessity and not an option for NTPC. According to the Department of Investment and Public Asset Management (DIPAM) Office Memorandum on Maharatna Scheme for CPSE dated 4 Feb 2010, equity investment is limited to the following: (a) INR50bn in any one project, (b) 15% of net worth of PSE in one project, (c) 30% of the net worth of the PSE in all joint ventures/subsidiaries put together. NTPC has already invested more than INR47bn in NTPC Green Energy and total investment in all subsidiaries has touched more than INR290bn (more than 19% of FY24 net worth). Further, the government of India also wants monetisation of assets as a part of its National Monetisation Pipeline. This may result in monetisation at levels which NTPC investors may consider sub-optimal.

Investment View: Based on our above analysis, we downgrade our rating on the stock to Hold from Buy. The stock has run up c96% in one year (vs Nifty Index +27.3%) and trades at 2.4x PB which is 3.6std dev higher than the last 10 years. Our detailed sum of the parts valuation (as explained in the table below) generates a fair value target price of INR355 which implies 2.1% downside.

NTPC Price to / 12M fwd book (x)



Source: Refinitiv Datastream, HSBC

We update our estimates on delay in execution of thermal and renewable capacity. Thus, our EPS estimates for FY25e-26e decline by 3.1% to 4.2%.

Change in estimates

	New			Old			Change		
(INRbn)	FY25e	FY26e	FY27e	FY25e	FY26e	FY27e	FY25e	FY26e	FY27e
Total sales	1,700	1,757	1,822	1,695	1,780	na	0.3%	-1.3%	na
EBITDA	471	493	511	473	507	na	-0.4%	-2.8%	na
Net Income	198	213	223	205	223	na	-3.1%	-4.2%	na
EPS	20.44	21.99	23.04	21.10	22.95	na	-3.1%	-4.2%	na
Book Value per share	167.3	180.9	194.9	167.6	182.2	na	-0.2%	-0.7%	na

Source: HSBC estimates. Note: we introduce our FY27 estimates in this report. For full estimates, please refer to the Forecast & Valuation page at the back of the report.

Valuation and risks

NTPC
NTPC IN

Hold (Downgrade from Buy)

Current price: **INR362.75**

Target price: **INR355.00**

Up/downside: **-2.1%**

Valuation

We value NTPC using a sum-of-the-parts (SOTP) approach. We value NTPC's core FY26e (FY25e earlier) regulated equity at a target PB ratio of 2.43x (from 2.26x). We set our target PB by assuming a cost of equity of 11.0% (unchanged) based on cost of equity assumptions from our global equity strategy team, with a risk-free rate of 3.5%, inflation premium of 2.0%, equity risk premium of 5.0%, and beta of 1.1x (all unchanged). We assume a regulated return on equity of 18.0%, and increase our terminal growth rate to 6% (from 5%) due to an increase in capacity addition plans considering India's focus on energy security.

We assign a DCF-based valuation to its renewable business assuming a cost of equity of 11.5% (unchanged), based on a risk-free rate of 3.5%, inflation premium of 2.0%, risk premium of 5.0%, and beta of 1.2x (all unchanged). For the JV projects, we use a long-term growth rate of 6% (from 5%), similar to regulated projects, to arrive at a PB ratio of 1.9x (unchanged), using the justified PB ratio formula. We continue to value cash and equity invested in new projects at 1x PB. These assumptions result in a fair value of INR383 (from INR340) as of March 2025 and we discount this value by nine months to arrive at our TP of INR355 (previously INR340 at March 2024). Our target price implies 2.1% downside. We downgrade our rating on the stock from Buy to Hold.

Risks to our view

Upside risks: (1) Aggressive power demand growth in India could lead to even faster thermal capacity addition. (2) Faster execution of renewable capacity addition.

Downside risks: (1) Risk of aggressive bidding in renewables; (2) delayed execution of projects; (3) delay/absence of power demand in the country, which could result in sub-optimal returns on large sums invested by NTPC in capacity addition; and (4) as NTPC earns most of its income based on regulatory returns, any change in regulations could impair its income.

Priced at 24 June 2024
Source: HSBC estimates

Tata Power (TPWR IN, Reduce, TP INR300)

Why is the stock up?

Investors expect potential privatisation of discoms to open up opportunities for Tata Power. They expect fast execution of the Pumped Storage Project, new business opportunities like rooftop solar, monetisation of its stake in Tata Sons, faster execution of its renewable pipeline and resolution of the Mundra issue. All this has taken the stock price up by 98.3% in the last one year (vs Nifty Index +27.3%).

What are investors missing?

(1) Pace of execution of some events is outside company's control. We think the pace of execution of the above-mentioned events (especially privatisation of discom) is beyond the control of the company and will require orchestration of strong policy support by local municipal bodies and the state government, not just the central government. PSP will require environmental approvals, rooftop solar is a retail scheme and will have its own pace of implementation, resolution of the Mundra issue will be dependent on states taking pro-active measures and finding a middle ground, and monetisation of the Tata Sons stake will be dependent on Tata Sons and Reserve Bank of India regulations.

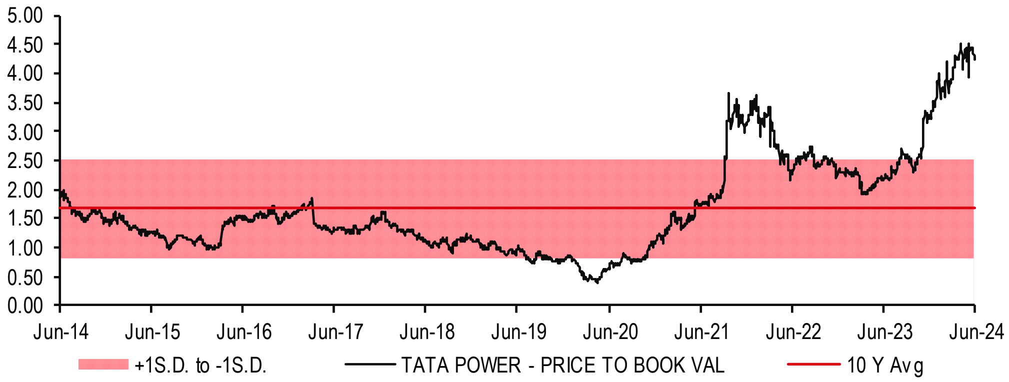
(2) Large part of the earnings growth in last 2 years was supported by either by coal price or implementation of Section 11. We don't expect coal prices to increase, and implementation of Section 11 could be intermittent once the seasonal power shortage issue is resolved. This can impact earnings growth on a favourable historical base.

(3) Execution capability of renewable projects is yet to be tested. Tata Power has ambitions to execute 1.5-2GW of renewable projects in the current year. It has never executed projects at this scale with FY24 recording 0.6GW and its historical best being 0.7GW.

Investment view

Based on the analysis above and described in detail in our report titled *Risk to pace of execution* dated 9 May 2024, we maintain our Reduce rating. The stock is trading at 4.3x PB which is 3.1std dev higher than its 10-year historical average. The stock is up 98.3% in the last one year (vs Nifty Index +27.3%).

TPWR Price to / 12M fwd book (x)



Source: Refinitiv Datastream, HSBC

Valuation and risks

		Valuation	Risks to our view
Tata Power TPWR IN **Reduce**	Current price: **INR435.60** Target price: **INR300.00** Up/downside: **-31.1%**	We value Tata Power using an SOTP approach. We value the regulated equity businesses at a PB of 2.0x for 2025e (unchanged). We value the Odisha DISCOMs by assigning a PB of 3.0x given the strong performance in FY24 and potential further turnaround of the business, with improved collection and efficiency. We value the non-regulated equity power businesses – Mundra and renewables – on free cash flow to the firm. We use the HSBC equity strategy team's assumptions: a risk-free rate assumption of 3.5%, inflation differential of 2.0%; and a risk premium of 5.0% for India (all unchanged). For Mundra, we use a beta of 1.6 (unchanged), resulting in a WACC of 8.5% (unchanged). For the terminal value, in FY29e, we use a multiple of 9.1x (unchanged). For the renewables business, using the above cost of equity assumptions and a beta of 1.2 (unchanged), which results in a WACC for the renewables business of 9.1% (unchanged). For the terminal value, we use 14x multiple (unchanged) in line with the multiple paid during its last stake sale. This results in a FY25 fair value of INR325. We discount this by nine months to arrive at our current fair value-based target price of INR300 (unchanged). This implies 31.1% downside. Hence, we maintain our Reduce rating. We think a slower execution of PSP and slower government reforms will be key catalysts for the stock.	**Upside risks** Solution to the Mundra power plant PPA to pass on a rise in coal prices and retain a greater share of coal profits could lead to improved profitability; monetisation of other extant businesses; rise in the coal price - with Mundra now enjoying coal price pass-through, this would improve profitability through its mining business; and faster pace of execution and reforms.

Priced at 24 June 2024
Source: HSBC estimates

ReNew Energy Global (RNW US, Buy, TP USD10.25)

Why has the stock lagged?
Investors worry about substantial leverage as c80% of capital employed is currently debt and its ability to execute more projects given the perceived risk of shortage of equity. Also, given the competitive intensity in this space, investors expect individual projects to have low IRR. RNW also suffers from currency risk as capex is incurred in USD, revenue is recorded in INR but the stock trades in USD.

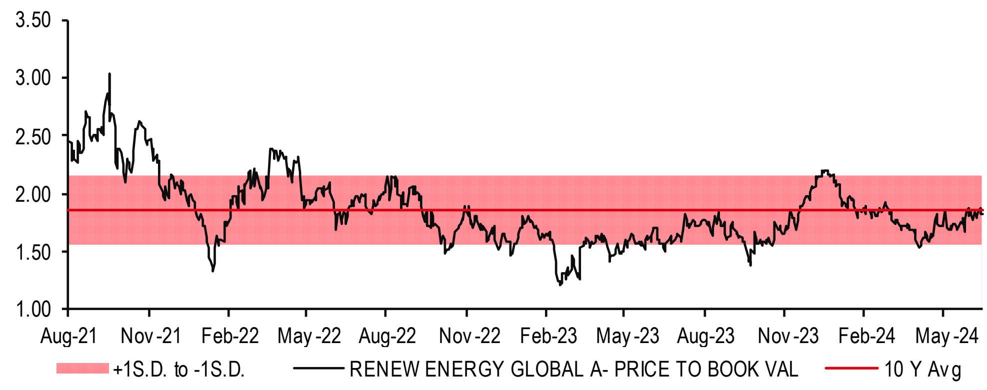
What are investors missing?
(1) **Large part of debt is related to under construction projects, and we are likely to be at the peak of interest rate cycle**. While reported net debt to EBITDA is 8.2x, as per the company, net debt to EBITDA for operational projects is c5.5x. Also, HSBC economists expect that interest rates have peaked and should fall by end of year. This should support stock performance.

(2) **Equity IRRs (EIRR) are more than what investors expect**. Owing to more than a 50% fall in module prices, projects which are getting executed have far higher equity IRR. Further, the company is engaging in complex bids where competitive intensity is less, and it has one of the scarcest abilities to execute wind projects. This should all result in higher EIRR. Also, historically, we believe technical and financial engineering in the form of overloading, use of bi-facial modules, deferring interest rate payments and recycling project equity results in higher EIRR.

(3) **Need to worry less on INR depreciation**. The current account deficit for India has improved in the last two decades. The latest data for FY24 suggests it has fallen to 0.7% of GDP (at USD23.2bn) vs 2% of GDP from FY23 (at USD67bn). Interestingly, Q4FY24 witnessed a current account surplus to 0.6% of GDP. The Indian economy is also performing better than the world average. All this should help in keeping INR depreciation in check.

Investment view
Based on our above analysis, we think investors are overestimating the risks. Also, RNW has a strong pipeline of projects to execute, a track record of execution, an in-house EPC team, and is backward integrated to manufacture cells/modules and has the capability to design complex projects. Hence, we rate the stock Buy.

RNW Price to / 12M fwd book (x)



Source: Refinitiv Datastream, HSBC

Valuation and risks

		Valuation	Risks to our view
ReNew Energy Global RNW US **Buy**	Current price: **USD6.47** Target price: **USD10.25** Up/downside: **+58.4%**	We continue to value ReNew Global using a DCF methodology. We assume a WACC of 8.6%, and cost of equity of 12.0%, based a risk-free rate of 3.5%, market risk premium of 5.0%, inflation premium of 2.0%, beta of 1.3x, and cost of debt of 9.5% (all unchanged). Using this approach, we derive our fair value for end-FY25e of INR367.1bn and discount the value back nine months to arrive at our fair value (unchanged). We use an unchanged USD-INR exchange rate of 83.1 based on the spot rate to arrive at a valuation of USD4.1bn (unchanged) and rounded target price of USD10.25 (unchanged). Our target price implies c58.4% upside and we maintain our Buy rating on the stock.	**Downside risks:** INR depreciation could hurt the valuation as capex and the stock are USD-denominated; further increases in interest rates could hit the financials as the projects carry high leverage; and any increase in solar supply chain prices including module and cell prices increasing could impact project profitability.

Priced at 24 June 2024
Source: HSBC estimates

BHEL (BHEL IN, Reduce, TP INR72)

Why is the stock up?

Investors expect India is going to witness a power shortage and the focus will be back on thermal power projects with expectations of 80GW of projects to be executed over the next 10 years. BHEL is the only player currently bidding for thermal capacity.

What are investors missing?

(1) **Project ordering will be dependent on discoms signing PPAs**. While power demand continues to rise, the ability of a discom to pay for that power decides its ability to sign a PPA with generating companies. Gencos will only order plants after signing PPAs. Consequently, we expect a more gradual pace of ordering and lower ordering of expensive thermal power plants. The government may also try to revive some old stuck projects which cannibalise new orders from BHEL.

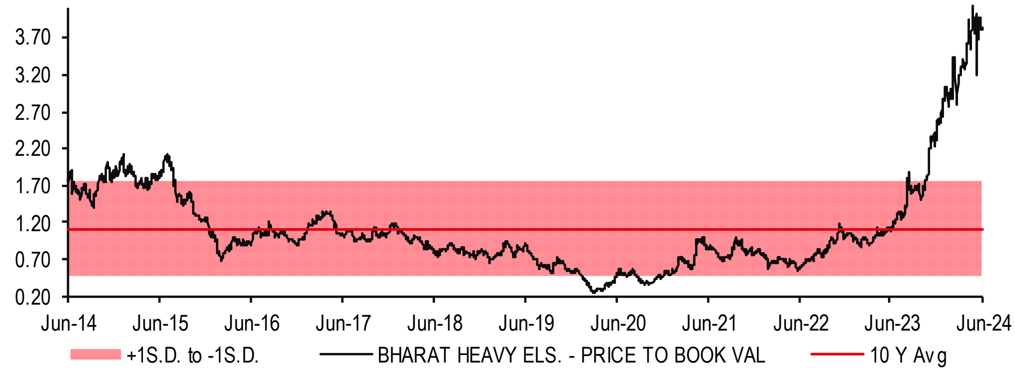
(2) **Battery prices and RE prices are falling faster than expected which will be viable alternative to thermal plants**. Recent BESS auctions suggest that storage costs have fallen to INR3.6-4.1/kWh. With RE prices now in the range of INR2.6-3.2/kWh, the combined prices are now comparable to power prices offered by new thermal power plants at INR4.5-7/kWh.

(3) **Execution capability has become questionable after years of weak ordering**. BHEL has been suffering from losses (after adjusting for provision write-backs) in the last five years as it suffered from a paucity of work. The company has managed its costs by controlling employee costs and in these circumstances it has lost some of its good employee base as well. We believe this can impact execution ability and thus margins.

Investment view

Based on the above analysis, we are sceptical of strong financial performance by the company. Also, 90% of the company's capital employed is towards the thermal sector which we believe will have zero as a terminal value. The stock is up 253% in the last one year (vs Nifty Index +27.3%). Hence, we maintain our Reduce rating.

BHEL Price to / 12M Fwd Book (x)



Source: Refinitiv Datastream, HSBC

We incorporate new project wins in our estimates and see EBITDA margins improving by 100bps in FY26e. This changes our EPS estimates by -7% and +25% in FY25e and FY26e, respectively.

Change in estimates

	New			Old			Change (%)		
INRm	FY25e	FY26e	FY27e	FY25e	FY26e	FY27e	FY25e	FY26e	FY27e
EBITDA	18,906	31,970	47,248	17,955	22,798	na	5%	40%	na
EBITDA margin	6.0%	8.0%	10.0%	6.0%	7.0%	na	0	100	na
HSBC PAT	13,332	23,793	33,085	14,288	18,965	na	-7%	25%	na
HSBC EPS	3.83	6.83	9.50	4.10	5.45	na	-7%	25%	na

Source: HSBC estimates. Note: we introduce our FY27 estimates in this report. For full estimates, please refer to the Forecast & Valuation page at the back of the report.

Valuation and risks

BHEL BHEL IN	Current price: INR294.70 Target price: INR72.00
Reduce	Up/downside: -75.6%

Valuation

We value BHEL using a DCF methodology. We assume a weighted cost of capital of 12.8% (unchanged), which is based on a risk-free rate of 3.5%, an India inflation differential of 2.0, equity risk premium of 5.0%, beta of 1.45, and zero debt (all unchanged).

Using the DCF method, we arrive at our fair value of INR79.00 at FY25e and discount it back nine months to arrive at our TP of INR72.00 (earlier we computed our fair value of INR58.0 at FY24e and discounted it back six months to arrive at the TP INR55.0). Our target price implies c75.6% downside and we maintain our Reduce rating on the stock.

Risks to our view

Upside risks: Faster unwinding of trade receivables; stronger-than-expected growth in electrical energy requirements; and lower renewable capacity additions.

Priced at 24 June 2024
Source: HSBC estimates

Financials & valuation: Power Grid Corp Of India

Reduce

Financial statements

Year to	03/2024a	03/2025e	03/2026e	03/2027e
Profit & loss summary (INRm)				
Revenue	423,912	428,660	439,965	452,518
EBITDA	367,548	374,723	383,993	394,553
Depreciation & amortisation	-125,582	-127,992	-131,282	-134,135
Operating profit/EBIT	241,966	246,732	252,710	260,419
Net interest	-90,469	-90,432	-91,954	-95,789
PBT	186,711	194,587	208,413	220,925
HSBC PBT	180,095	194,587	208,413	220,925
Taxation	-26,320	-33,932	-36,343	-38,525
Net profit	154,746	160,655	172,070	182,400
HSBC net profit	154,746	160,655	172,070	182,400
Cash flow summary (INRm)				
Cash flow from operations	772,454	717,027	730,743	749,315
Capex	-55,118	-50,000	-82,000	-80,000
Cash flow from investment	-104,335	-193,129	-186,250	-182,490
Dividends	-112,189	-109,245	-117,008	-124,032
Change in net debt	-41,084	56,585	48,462	47,550
FCF equity	717,336	667,027	648,743	669,315
Balance sheet summary (INRm)				
Intangible fixed assets	0	0	0	0
Tangible fixed assets	1,727,532	1,649,541	1,600,258	1,546,124
Current assets	543,370	668,314	806,944	935,646
Cash & others	56,350	25,765	38,303	52,753
Total assets	2,358,219	2,430,759	2,549,711	2,673,288
Operating liabilities	242,754	243,967	246,857	250,066
Gross debt	1,234,528	1,260,528	1,321,528	1,383,528
Net debt	1,178,178	1,234,763	1,283,225	1,330,775
Shareholders' funds	868,671	920,080	975,143	1,033,511
Invested capital	1,971,799	2,048,123	2,122,043	2,178,950

Ratio, growth and per share analysis

Year to	03/2024a	03/2025e	03/2026e	03/2027e
Y-o-y % change				
Revenue	-2.2	1.1	2.6	2.9
EBITDA	-1.4	2.0	2.5	2.8
Operating profit	-0.6	2.0	2.4	3.1
PBT	8.5	4.2	7.1	6.0
HSBC EPS	-24.3	3.8	7.1	6.0
Ratios (%)				
Revenue/IC (x)	0.2	0.2	0.2	0.2
ROIC	10.5	10.1	10.0	10.0
ROE	18.2	18.0	18.2	18.2
ROA	10.1	9.8	10.0	10.0
EBITDA margin	86.7	87.4	87.3	87.2
Operating profit margin	57.1	57.6	57.4	57.5
EBITDA/net interest (x)	4.1	4.1	4.2	4.1
Net debt/equity	135.6	134.2	131.6	128.8
Net debt/EBITDA (x)	3.2	3.3	3.3	3.4
CF from operations/net debt	65.6	58.1	56.9	56.3
Per share data (INR)				
EPS Rep (diluted)	16.64	17.27	18.50	19.61
HSBC EPS (diluted)	16.64	17.27	18.50	19.61
DPS	11.25	11.75	12.58	13.34
Book value	93.40	98.93	104.85	111.12

Valuation data

Year to	03/2024a	03/2025e	03/2026e	03/2027e
EV/sales	9.9	9.8	9.6	9.4
EV/EBITDA	11.4	11.3	11.0	10.7
EV/IC	2.1	2.1	2.0	1.9
PE*	20.0	19.3	18.0	17.0
PB	3.6	3.4	3.2	3.0
FCF yield (%)	23.2	21.5	20.9	21.6
Dividend yield (%)	3.4	3.5	3.8	4.0

* Based on HSBC EPS (diluted)

ESG metrics

Environmental Indicators	03/2023a
GHG emission intensity*	66.2
Energy intensity*	73,200.8
CO_2 reduction policy	Yes
Social Indicators	**03/2023a**
Employee costs as % of revenues	5.8
Employee turnover (%)	5.8
Diversity policy	Yes

Governance Indicators	03/2024a
No. of board members	10
Average board tenure (years)	n/a
Female board members (%)	20
Board members independence (%)	30

Source: Company data, HSBC

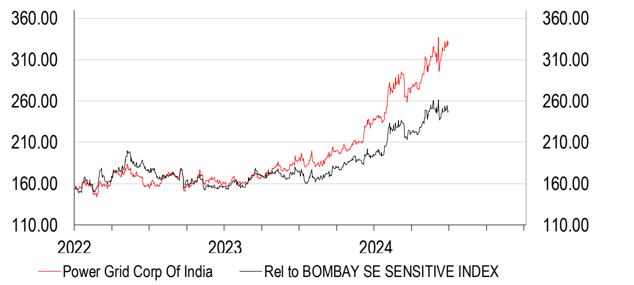
* GHG intensity and energy intensity are measured in kg and kWh respectively against revenue in USD '000s

Issuer information

Share price (INR)	332.95
Target price (INR)	270.00
RIC (Equity)	PGRD.BO
Bloomberg (Equity)	PWGR IN
Market cap (USDm)	37,097

Free float	42%
Sector	Electric Utilities
Country/Region	India
Analyst	Puneet Gulati, CFA
Contact	+91 22 2268 1235

Price relative



Source: HSBC

Note: Priced at close of 24 Jun 2024

Financials & valuation: NTPC

Hold

Financial statements

Year to	03/2024a	03/2025e	03/2026e	03/2027e
Profit & loss summary (INRm)				
Revenue	1,619,850	1,700,061	1,756,886	1,822,110
EBITDA	431,824	471,244	492,894	510,982
Depreciation & amortisation	-139,432	-149,526	-155,709	-161,354
Operating profit/EBIT	292,392	321,718	337,184	349,628
Net interest	-102,508	-86,314	-88,734	-90,481
PBT	246,794	275,377	296,313	310,412
HSBC PBT	265,923	275,377	296,313	310,412
Taxation	-66,000	-77,192	-83,060	-87,013
Net profit	180,794	198,185	213,252	223,399
HSBC net profit	164,050	198,185	213,252	223,399
Cash flow summary (INRm)				
Cash flow from operations	355,882	485,607	473,536	510,982
Capex	-173,691	-140,008	-61,971	-61,222
Cash flow from investment	-151,182	-205,386	-118,410	-83,606
Dividends	-72,725	-74,943	-81,105	-87,712
Change in net debt	-110,063	-88,854	-133,184	-155,300
FCF equity	182,191	345,599	411,565	449,760
Balance sheet summary (INRm)				
Intangible fixed assets	0	0	0	0
Tangible fixed assets	2,651,920	2,732,998	2,677,289	2,615,935
Current assets	949,446	1,070,656	1,256,257	1,487,194
Cash & others	46,005	161,558	334,743	530,043
Total assets	3,932,945	4,200,611	4,386,942	4,578,908
Operating liabilities	540,451	560,471	574,654	590,933
Gross debt	1,469,836	1,496,536	1,536,536	1,576,536
Net debt	1,423,831	1,334,977	1,201,793	1,046,493
Shareholders' funds	1,498,850	1,622,093	1,754,240	1,889,927
Invested capital	3,014,910	3,081,625	3,024,149	2,982,152

Ratio, growth and per share analysis

Year to	03/2024a	03/2025e	03/2026e	03/2027e
Y-o-y % change				
Revenue	-1.1	5.0	3.3	3.7
EBITDA	-0.1	9.1	4.6	3.7
Operating profit	-2.8	10.0	4.8	3.7
PBT	5.1	11.6	7.6	4.8
HSBC EPS	2.3	20.8	7.6	4.8
Ratios (%)				
Revenue/IC (x)	0.5	0.6	0.6	0.6
ROIC	7.1	7.6	7.9	8.4
ROE	11.4	12.7	12.6	12.3
ROA	6.6	6.4	6.5	6.4
EBITDA margin	26.7	27.7	28.1	28.0
Operating profit margin	18.1	18.9	19.2	19.2
EBITDA/net interest (x)	4.2	5.5	5.6	5.6
Net debt/equity	95.0	82.3	68.5	55.4
Net debt/EBITDA (x)	3.3	2.8	2.4	2.0
CF from operations/net debt	25.0	36.4	39.4	48.8
Per share data (INR)				
EPS Rep (diluted)	18.64	20.44	21.99	23.04
HSBC EPS (diluted)	16.92	20.44	21.99	23.04
DPS	7.75	7.73	8.36	9.05
Book value	154.57	167.28	180.91	194.90

Valuation data

Year to	03/2024a	03/2025e	03/2026e	03/2027e
EV/sales	2.8	2.6	2.4	2.2
EV/EBITDA	10.7	9.5	8.7	8.0
EV/IC	1.5	1.4	1.4	1.4
PE*	21.4	17.7	16.5	15.7
PB	2.3	2.2	2.0	1.9
FCF yield (%)	5.2	9.8	11.7	12.8
Dividend yield (%)	2.1	2.1	2.3	2.5

* Based on HSBC EPS (diluted)

ESG metrics

Environmental Indicators	03/2023a
GHG emission intensity*	16,500.0
Energy intensity*	50,980.9
CO_2 reduction policy	Yes
Social Indicators	**03/2023a**
Employee costs as % of revenues	3.4
Employee turnover (%)	7.9
Diversity policy	Yes

Governance Indicators	03/2024a
No. of board members	12
Average board tenure (years)	n/a
Female board members (%)	8.3
Board members independence (%)	33.3

Source: Company data, HSBC

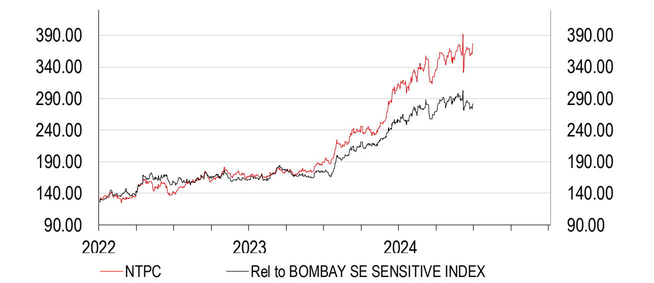
* GHG intensity and energy intensity are measured in kg and kWh respectively against revenue in USD '000s

Issuer information

Share price (INR)	362.75
Target price (INR)	355.00
RIC (Equity)	NTPC.BO
Bloomberg (Equity)	NTPC IN
Market cap (USDm)	42,138

Free float	30%
Sector	Electric Utilities
Country/Region	India
Analyst	Puneet Gulati, CFA
Contact	+91 22 2268 1235

Price relative



Source: HSBC

Note: Priced at close of 24 Jun 2024

Financials & valuation: ReNew Energy Global

Buy

Financial statements

Year to	03/2024a	03/2025e	03/2026e	03/2027e
Profit & loss summary (INRm)				
Revenue	83,399	95,111	112,215	128,386
EBITDA	60,254	69,090	83,503	97,024
Depreciation & amortisation	-17,583	-22,057	-24,068	-26,052
Operating profit/EBIT	42,671	47,033	59,434	70,972
Net interest	-42,234	-47,287	-49,625	-54,913
PBT	8,297	6,555	16,618	22,868
Taxation	-3,995	-1,800	-1,250	-1,519
Net profit	4,302	3,965	15,368	21,350
Cash flow summary (INRm)				
Cash flow from operations	20,607	13,432	24,839	35,946
Capex	-164,515	-69,513	-59,876	-67,429
Cash flow from investment	-171,284	-69,513	-59,876	-67,429
Dividends	0	0	0	0
Change in net debt	114,074	43,357	23,290	50,992
FCF pre dividends	-143,908	-56,081	-35,037	-31,483
Balance sheet summary (INRm)				
Intangible fixed assets	37,883	36,565	35,293	34,066
Tangible fixed assets	691,108	739,882	776,961	819,565
Current assets	128,681	112,287	142,511	123,083
Cash & others	84,527	70,445	97,156	76,163
Total assets	874,730	905,792	971,824	993,773
Operating liabilities	76,893	72,925	73,589	74,188
Financial liabilities	647,317	676,592	726,592	756,592
Total liabilities	753,033	778,340	829,004	859,603
Net debt	562,790	606,147	629,436	680,429
Shareholders' funds	105,217	109,972	125,340	146,690

Ratio, growth and per share analysis

Year to	03/2024a	03/2025e	03/2026e	03/2027e
Y-o-y % change				
Revenue	5.1	14.0	18.0	14.4
EBITDA	10.9	14.7	20.9	16.2
Operating profit	11.1	10.2	26.4	19.4
PBT		-21.0	153.5	37.6
HSBC EPS		-15.4	287.6	38.9
Ratios (%)				
ROE	4.1	3.7	13.1	15.7
ROCE	4.1	5.4	7.9	8.5
EBITDA margin	72.2	72.6	74.4	75.6
Operating profit margin	51.2	49.5	53.0	55.3
Net debt/equity	462.5	479.3	443.8	417.0
CF from operations/net debt	3.7	2.2	3.9	5.3
Per share data (INR)				
EPS reported (diluted)	11.74	9.94	38.52	53.51
HSBC EPS (diluted)	11.74	9.94	38.52	53.51
DPS	0.00	0.00	0.00	0.00
Gross CFPS	11.95	37.81	69.40	92.51

Valuation data

Year to	03/2024a	03/2025e	03/2026e	03/2027e
EV/sales	8.9	8.2	7.2	6.7
EV/EBITDA	12.3	11.3	9.7	8.8
P/CF	45.2	14.3	7.8	5.8
PE*	46.0	54.3	14.0	10.1
FCF yield (pre div) (%)	-104.6	-40.8	-25.5	-22.9
Dividend yield (%)	0.0	0.0	0.0	0.0

* Based on HSBC EPS (diluted)

ESG metrics

Environmental Indicators	03/2023a
GHG emission intensity*	36.2
Energy intensity*	51.5
CO_2 reduction policy	Yes
Social Indicators	**03/2023a**
Employee costs as % of revenues	5.6
Employee turnover (%)	17.5
Diversity policy	Yes

Governance Indicators	03/2024a
No. of board members	9
Average board tenure (years)	n/a
Female board members (%)	22.2
Board members independence (%)	66.7

Source: Company data, HSBC

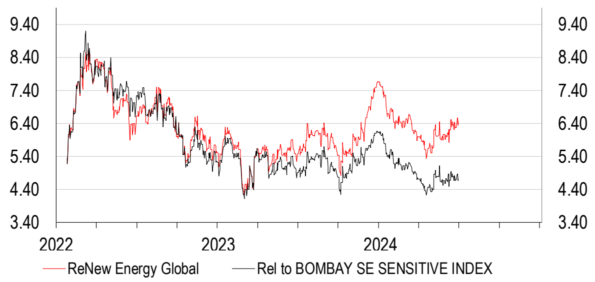
* GHG intensity and energy intensity are measured in kg and kWh respectively against revenue in USD '000s

Issuer information

Share price (USD)	6.47
Target price (USD)	10.25
RIC (Equity)	RNW.OQ
Bloomberg (Equity)	RNW US
Market cap (USDm)	1,648

Free float	0%
Sector	Energy Equipment
Country/Region	India
Analyst	Puneet Gulati, CFA
Contact	+91 22 2268 1235

Price relative



Source: HSBC
Note: Priced at close of 24 Jun 2024

Financials & valuation: Tata Power

Reduce

Financial statements

Year to	03/2023a	03/2024e	03/2025e	03/2026e
Profit & loss summary (INRm)				
Revenue	551,091	614,489	742,159	798,772
EBITDA	77,063	107,838	120,463	140,337
Depreciation & amortisation	-34,392	-37,864	-40,603	-46,153
Operating profit/EBIT	42,671	69,975	79,861	94,184
Net interest	-43,717	-46,332	-43,481	-48,419
PBT	54,570	56,300	60,351	67,478
HSBC PBT	13,335	41,877	50,474	57,369
Taxation	-16,473	-13,499	-15,142	-17,211
Net profit	33,364	36,963	39,401	43,693
HSBC net profit	33,364	35,249	39,401	43,693
Cash flow summary (INRm)				
Cash flow from operations	71,591	184,675	192,891	230,183
Capex	-76,057	-117,990	-138,753	0
Cash flow from investment	-73,753	-117,990	-138,753	0
Dividends	-7,869	-6,391	-6,391	-6,391
Change in net debt	-16,582	65,159	69,853	90,467
FCF equity	-4,466	66,686	54,139	230,183
Balance sheet summary (INRm)				
Intangible fixed assets	0	0	0	0
Tangible fixed assets	671,230	751,356	849,506	977,156
Current assets	357,564	234,677	276,778	286,605
Cash & others	112,065	-4,939	15,000	15,000
Total assets	1,267,472	1,224,712	1,364,962	1,502,439
Operating liabilities	288,242	290,802	305,387	311,855
Gross debt	619,878	568,033	657,826	748,293
Net debt	480,774	545,934	615,787	706,255
Shareholders' funds	287,874	318,446	351,457	388,760
Invested capital	628,487	700,171	805,897	936,906

Ratio, growth and per share analysis

Year to	03/2023a	03/2024e	03/2025e	03/2026e
Y-o-y % change				
Revenue	28.7	11.5	20.8	7.6
EBITDA	2.6	39.9	11.7	16.5
Operating profit	-2.8	64.0	14.1	17.9
PBT	115.2	3.2	7.2	11.8
HSBC EPS	41.4	5.6	11.8	10.9
Ratios (%)				
Revenue/IC (x)	0.9	0.9	1.0	0.9
ROIC	4.9	8.0	7.9	8.1
ROE	13.0	11.6	11.8	11.8
ROA	5.8	6.3	6.0	6.0
EBITDA margin	14.0	17.5	16.2	17.6
Operating profit margin	7.7	11.4	10.8	11.8
EBITDA/net interest (x)	1.8	2.3	2.8	2.9
Net debt/equity	140.6	156.6	160.2	166.2
Net debt/EBITDA (x)	6.2	5.1	5.1	5.0
CF from operations/net debt	14.9	33.8	31.3	32.6
Per share data (INR)				
EPS Rep (diluted)	10.43	11.56	12.32	13.66
HSBC EPS (diluted)	10.43	11.02	12.32	13.66
DPS	2.00	2.00	2.00	2.00
Book value	90.09	99.66	109.99	121.66

Valuation data

Year to	03/2023a	03/2024e	03/2025e	03/2026e
EV/sales	3.5	3.2	2.8	2.7
EV/EBITDA	25.0	18.3	16.9	15.2
EV/IC	3.1	2.8	2.5	2.3
PE*	41.8	39.5	35.4	31.9
PB	4.8	4.4	4.0	3.6
FCF yield (%)	-0.3	4.8	3.9	16.5
Dividend yield (%)	0.5	0.5	0.5	0.5

* Based on HSBC EPS (diluted)

ESG metrics

Environmental Indicators	03/2023a
GHG emission intensity*	4,195.0
Energy intensity*	16,554.0
CO_2 reduction policy	Yes
Social Indicators	**03/2023a**
Employee costs as % of revenues	6.9
Employee turnover (%)	5.9
Diversity policy	Yes

Governance Indicators	03/2024a
No. of board members	11
Average board tenure (years)	n/a
Female board members (%)	18.2
Board members independence (%)	54.5

Source: Company data, HSBC

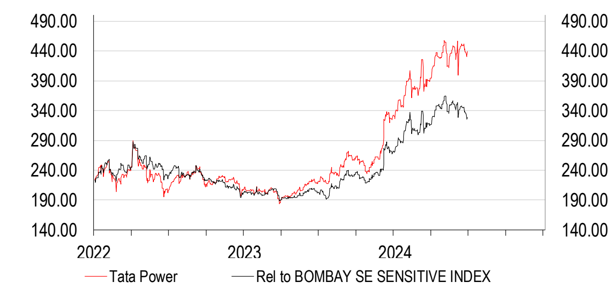
* GHG intensity and energy intensity are measured in kg and kWh respectively against revenue in USD '000s

Issuer information

Share price (INR)	435.60
Target price (INR)	300.00
RIC (Equity)	TTPW.BO
Bloomberg (Equity)	TPWR IN
Market cap (USDm)	16,683

Free float	67%
Sector	Electric Utilities
Country/Region	India
Analyst	Puneet Gulati, CFA
Contact	+91 22 2268 1235

Price relative



Source: HSBC

Note: Priced at close of 24 Jun 2024

Financials & valuation: BHEL

Reduce

Financial statements

Year to	03/2024a	03/2025e	03/2026e	03/2027e
Profit & loss summary (INRm)				
Revenue	238,928	315,094	399,629	472,478
EBITDA	-11,603	18,906	31,970	47,248
Depreciation & amortisation	-2,489	-2,272	-2,336	-2,414
Operating profit/EBIT	-14,092	16,634	29,635	44,834
Net interest	-1,434	-1,820	-1,539	-813
PBT	-15,526	14,813	28,096	44,021
HSBC PBT	2,203	14,813	28,096	44,021
Taxation	396	-1,481	-4,199	-11,129
Net profit	-15,130	13,332	23,897	32,893
HSBC net profit	2,599	13,332	23,881	32,941
Cash flow summary (INRm)				
Cash flow from operations	-19,461	12,057	24,732	36,693
Capex	-3,015	-4,236	-5,042	-5,962
Cash flow from investment	-2,995	-4,236	-5,042	-5,962
Dividends	-3,482	-4,400	-7,881	-10,871
Change in net debt	39,228	-1,827	-14,772	-17,144
FCF equity	-22,476	7,820	19,690	30,731
Balance sheet summary (INRm)				
Intangible fixed assets	0	0	0	0
Tangible fixed assets	28,824	30,788	33,495	37,043
Current assets	516,662	601,971	700,866	788,935
Cash & others	61,575	63,402	78,174	95,318
Total assets	594,174	681,448	783,049	874,666
Operating liabilities	257,104	337,038	419,677	491,940
Gross debt	88,565	88,565	88,565	88,565
Net debt	26,990	25,162	10,391	-6,753
Shareholders' funds	248,506	257,438	273,439	295,509
Invested capital	226,807	232,319	236,510	238,720

Ratio, growth and per share analysis

Year to	03/2024a	03/2025e	03/2026e	03/2027e
Y-o-y % change				
Revenue	2.3	31.9	26.8	18.2
EBITDA	-261.9		69.1	47.8
Operating profit	-408.9		78.2	51.3
PBT	-445.3		89.7	56.7
HSBC EPS	-41.9	413.0	78.5	39.1
Ratios (%)				
Revenue/IC (x)	1.1	1.4	1.7	2.0
ROIC	-6.2	6.5	10.8	14.1
ROE	1.0	5.3	9.0	11.6
ROA	-1.3	3.1	4.1	4.6
EBITDA margin	-4.9	6.0	8.0	10.0
Operating profit margin	-5.9	5.3	7.4	9.5
EBITDA/net interest (x)		10.4	20.8	58.1
Net debt/equity	10.9	9.8	3.8	-2.3
Net debt/EBITDA (x)	-2.3	1.3	0.3	-0.1
CF from operations/net debt		47.9	238.0	
Per share data (INR)				
EPS Rep (diluted)	-4.35	3.83	6.83	9.52
HSBC EPS (diluted)	0.75	3.83	6.83	9.50
DPS	1.00	1.26	2.25	3.14
Book value	71.37	73.93	78.53	84.87

Valuation data

Year to	03/2024a	03/2025e	03/2026e	03/2027e
EV/sales	4.4	3.3	2.6	2.1
EV/EBITDA	nm	55.3	32.2	21.4
EV/IC	4.6	4.5	4.4	4.2
PE*	394.8	77.0	43.1	31.0
PB	4.1	4.0	3.8	3.5
FCF yield (%)	-2.2	0.8	1.9	3.0
Dividend yield (%)	0.3	0.4	0.8	1.1

* Based on HSBC EPS (diluted)

ESG metrics

Environmental Indicators	03/2023a
GHG emission intensity*	n/a
Energy intensity*	n/a
CO_2 reduction policy	Yes
Social Indicators	**03/2023a**
Employee costs as % of revenues	24.4
Employee turnover (%)	n/a
Diversity policy	Yes

Governance Indicators	03/2021e
No. of board members	9
Average board tenure (years)	2.5
Female board members (%)	11.1
Board members independence (%)	33.3

Source: Company data, HSBC

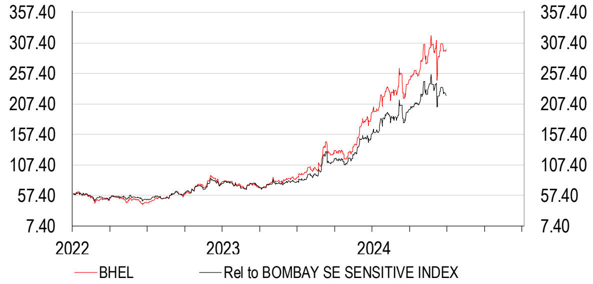
* GHG intensity and energy intensity are measured in kg and kWh respectively against revenue in USD '000s

Issuer information

Share price (INR)	294.70
Target price (INR)	72.00
RIC (Equity)	BHEL.BO
Bloomberg (Equity)	BHEL IN
Market cap (USDm)	12,293

Free float	32%
Sector	Electrical Equipment
Country/Region	India
Analyst	Puneet Gulati, CFA
Contact	+91 22 2268 1235

Price relative



Source: HSBC

Note: Priced at close of 24 Jun 2024

Disclosure appendix

Analyst Certification

The following analyst(s), economist(s), or strategist(s) who is(are) primarily responsible for this report, including any analyst(s) whose name(s) appear(s) as author of an individual section or sections of the report and any analyst(s) named as the covering analyst(s) of a subsidiary company in a sum-of-the-parts valuation certifies(y) that the opinion(s) on the subject security(ies) or issuer(s), any views or forecasts expressed in the section(s) of which such individual(s) is(are) named as author(s), and any other views or forecasts expressed herein, including any views expressed on the back page of the research report, accurately reflect their personal view(s) and that no part of their compensation was, is or will be directly or indirectly related to the specific recommendation(s) or views contained in this research report: Puneet Gulati, CFA and Akshay Malhotra

Important disclosures

Equities: Stock ratings and basis for financial analysis

HSBC and its affiliates, including the issuer of this report ("HSBC") believes an investor's decision to buy or sell a stock should depend on individual circumstances such as the investor's existing holdings, risk tolerance and other considerations and that investors utilise various disciplines and investment horizons when making investment decisions. Ratings should not be used or relied on in isolation as investment advice. Different securities firms use a variety of ratings terms as well as different rating systems to describe their recommendations and therefore investors should carefully read the definitions of the ratings used in each research report. Further, investors should carefully read the entire research report and not infer its contents from the rating because research reports contain more complete information concerning the analysts' views and the basis for the rating.

From 23rd March 2015 HSBC has assigned ratings on the following basis:

The target price is based on the analyst's assessment of the stock's actual current value, although we expect it to take six to 12 months for the market price to reflect this. When the target price is more than 20% above the current share price, the stock will be classified as a Buy; when it is between 5% and 20% above the current share price, the stock may be classified as a Buy or a Hold; when it is between 5% below and 5% above the current share price, the stock will be classified as a Hold; when it is between 5% and 20% below the current share price, the stock may be classified as a Hold or a Reduce; and when it is more than 20% below the current share price, the stock will be classified as a Reduce.

Our ratings are re-calibrated against these bands at the time of any 'material change' (initiation or resumption of coverage, change in target price or estimates).

Upside/Downside is the percentage difference between the target price and the share price.

Prior to this date, HSBC's rating structure was applied on the following basis:

For each stock we set a required rate of return calculated from the cost of equity for that stock's domestic or, as appropriate, regional market established by our strategy team. The target price for a stock represented the value the analyst expected the stock to reach over our performance horizon. The performance horizon was 12 months. For a stock to be classified as Overweight, the potential return, which equals the percentage difference between the current share price and the target price, including the forecast dividend yield when indicated, had to exceed the required return by at least 5 percentage points over the succeeding 12 months (or 10 percentage points for a stock classified as Volatile*). For a stock to be classified as Underweight, the stock was expected to underperform its required return by at least 5 percentage points over the succeeding 12 months (or 10 percentage points for a stock classified as Volatile*). Stocks between these bands were classified as Neutral.

*A stock was classified as volatile if its historical volatility had exceeded 40%, if the stock had been listed for less than 12 months (unless it was in an industry or sector where volatility is low) or if the analyst expected significant volatility. However, stocks which we did not consider volatile may in fact also have behaved in such a way. Historical volatility was defined as the past month's average of the daily 365-day moving average volatilities. In order to avoid misleadingly frequent changes in rating, however, volatility had to move 2.5 percentage points past the 40% benchmark in either direction for a stock's status to change.

Rating distribution for long-term investment opportunities

As of 31 March 2024, the distribution of all independent ratings published by HSBC is as follows:

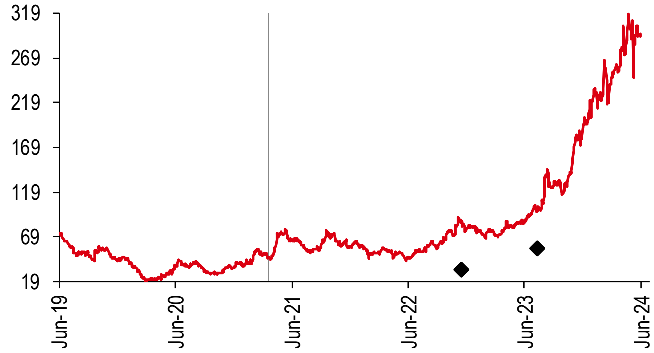
Buy	55%	(12% of these provided with Investment Banking Services in the past 12 months)
Hold	38%	(15% of these provided with Investment Banking Services in the past 12 months)
Sell	7%	(10% of these provided with Investment Banking Services in the past 12 months)

For the purposes of the distribution above the following mapping structure is used during the transition from the previous to current rating models: under our previous model, Overweight = Buy, Neutral = Hold and Underweight = Sell; under our current model Buy = Buy, Hold = Hold and Reduce = Sell. For rating definitions under both models, please see "Stock ratings and basis for financial analysis" above.

For the distribution of non-independent ratings published by HSBC, please see the disclosure page available at http://www.hsbcnet.com/gbm/financial-regulation/investment-recommendations-disclosures.

Share price and rating changes for long-term investment opportunities

BHEL (BHEL.BO) share price performance INR Vs HSBC rating history



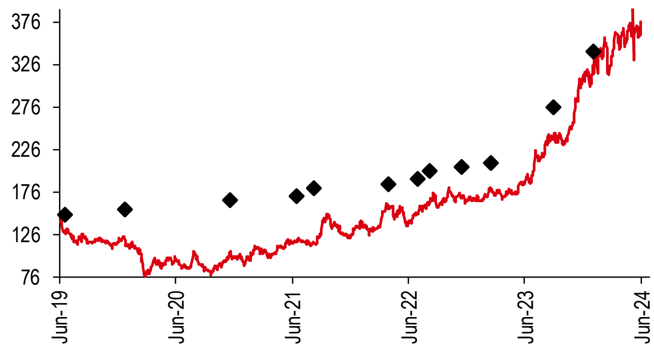
Source: HSBC

Rating & target price history

From	To	Date	Analyst
Hold	Reduce	14 Apr 2021	Puneet Gulati
Target price	**Value**	**Date**	**Analyst**
Price 1	32.00	16 Dec 2022	Puneet Gulati
Price 2	55.00	08 Aug 2023	Puneet Gulati

Source: HSBC

NTPC (NTPC.BO) share price performance INR Vs HSBC rating history



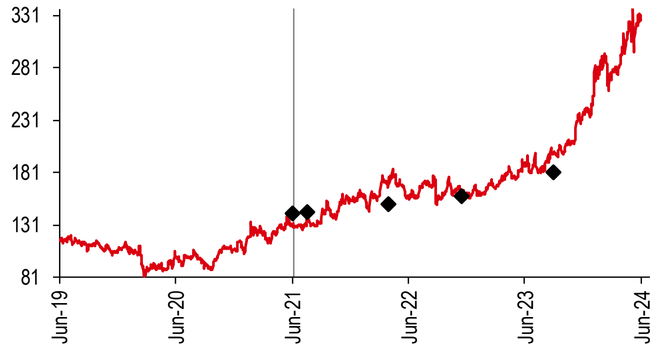
Source: HSBC

Rating & target price history

From	To	Date	Analyst
Overweight	Buy	21 Apr 2015	Arun Kumar Singh
Target price	**Value**	**Date**	**Analyst**
Price 1	144.17	30 Oct 2015	Arun Kumar Singh
Price 2	135.83	18 May 2016	Jigar Mistry
Price 3	140.83	12 Jul 2016	Jigar Mistry
Price 4	145.83	01 Aug 2016	Jigar Mistry
Price 5	164.17	18 Jan 2017	Jigar Mistry
Price 6	166.67	06 Aug 2017	Puneet Gulati
Price 7	175.00	01 Aug 2018	Puneet Gulati
Price 8	141.67	01 Feb 2019	Puneet Gulati
Price 9	145.83	11 Mar 2019	Puneet Gulati
Price 10	145.00	19 Mar 2019	Puneet Gulati
Price 11	148.00	17 Jul 2019	Puneet Gulati
Price 12	155.00	20 Jan 2020	Puneet Gulati
Price 13	165.00	15 Dec 2020	Puneet Gulati
Price 14	170.00	13 Jul 2021	Puneet Gulati
Price 15	180.00	06 Sep 2021	Puneet Gulati
Price 16	185.00	29 Apr 2022	Puneet Gulati
Price 17	190.00	27 Jul 2022	Puneet Gulati
Price 18	200.00	06 Sep 2022	Puneet Gulati
Price 19	205.00	16 Dec 2022	Puneet Gulati
Price 20	210.00	15 Mar 2023	Puneet Gulati
Price 21	275.00	29 Sep 2023	Puneet Gulati
Price 22	340.00	30 Jan 2024	Puneet Gulati

Source: HSBC

Power Grid Corp Of India (PGRD.BO) share price performance INR Vs HSBC rating history



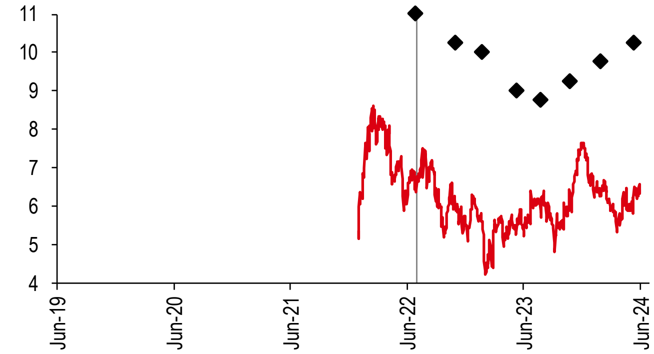
Source: HSBC

Rating & target price history

From	To	Date	Analyst
Restricted	Hold	01 Jul 2021	Puneet Gulati
Target price	**Value**	**Date**	**Analyst**
Price 1	140.63	01 Jul 2021	Puneet Gulati
Price 2	142.50	15 Aug 2021	Puneet Gulati
Price 3	150.00	29 Apr 2022	Puneet Gulati
Price 4	157.50	16 Dec 2022	Puneet Gulati
Price 5	180.00	29 Sep 2023	Puneet Gulati

Source: HSBC

ReNew Energy Global (RNW.OQ) share price performance USD Vs HSBC rating history



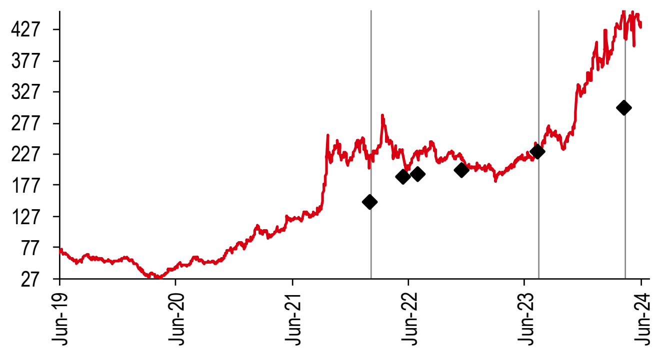
Source: HSBC

Rating & target price history

From	To	Date	Analyst
N/A	Buy	27 Jul 2022	Puneet Gulati
Target price	**Value**	**Date**	**Analyst**
Price 1	11.00	27 Jul 2022	Puneet Gulati
Price 2	10.25	28 Nov 2022	Puneet Gulati
Price 3	10.00	21 Feb 2023	Puneet Gulati
Price 4	9.00	08 Jun 2023	Puneet Gulati
Price 5	8.75	22 Aug 2023	Puneet Gulati
Price 6	9.25	21 Nov 2023	Puneet Gulati
Price 7	9.75	26 Feb 2024	Puneet Gulati
Price 8	10.25	10 Jun 2024	Puneet Gulati

Source: HSBC

Tata Power (TTPW.BO) share price performance INR Vs HSBC rating history



Source: HSBC

Rating & target price history

From	To	Date	Analyst
Hold	Reduce	28 Feb 2022	Puneet Gulati
Reduce	Hold	11 Aug 2023	Puneet Gulati
Hold	Reduce	09 May 2024	Puneet Gulati
Target price	**Value**	**Date**	**Analyst**
Price 1	150.00	28 Feb 2022	Puneet Gulati
Price 2	190.00	14 Jun 2022	Puneet Gulati
Price 3	195.00	27 Jul 2022	Puneet Gulati
Price 4	200.00	16 Dec 2022	Puneet Gulati
Price 5	230.00	11 Aug 2023	Puneet Gulati
Price 6	300.00	09 May 2024	Puneet Gulati

Source: HSBC

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Company	Ticker	Recent price	Price date	Disclosure
BHEL	BHEL.BO	296.95	27 Jun 2024	7
NTPC	NTPC.NS	377.15	27 Jun 2024	–
POWER GRID CORP OF INDIA	PGRD.BO	331.55	27 Jun 2024	–
RENEW ENERGY GLOBAL	RNW.OQ	6.45	27 Jun 2024	–
TATA POWER	TTPW.BO	439.45	27 Jun 2024	–

Source: HSBC

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