

Bharat Heavy Electricals | BUY

Thermal: Not zero terminal value for now

India has 220GW of coal-fired capacity, which is targeted to increase to 300GW by 2035E—40GW under construction, 23GW recently awarded and 17GW at tendering stage. India will require coal-fired power generation capacity of 340GW by 2047E, implying a net addition of 40GW by 2047E. Since ~50GW of plants—mostly with sub-critical technology (high cost, high emissions)—would exhaust their useful life by 2035E and another 88GW by 2047E, India would require additional 170–180GW of new projects just to maintain its installed base of 340GW by 2047E. Furthermore, a likely miss on the '100GW nuclear by 2047' ambition may lead to an increase in targets for thermal power additions. That said, any scalable success in RE + storage as base load may change the calculus of coal demand. We remain optimistic about BHEL's performance (execution, margins) and maintain 'BUY' on the stock with a TP of INR 363 based on a valuation rollover to Mar'28E EPS.

- **Generation capacity:** India has 220GW of coal-fired capacity, which is targeted to increase to about 300GW by 2035E (40GW under construction, 23GW recently awarded, 17GW in tendering). India will require coal-fired power generation capacity of 340GW (excluding 80GW captive) by 2047E, implying a net addition of 40GW by 2047E as per the CEA's latest estimates.
- **Ageing existing plants:** The average age of coal-fired fleet in India is 16 years. About 50GW of operating plants will exhaust their useful life (assuming 30 years) by 2035E and another 88GW by 2047E. So, India will need to order 170–180GW of new thermal power projects—first around 2029/30 and then 2035, just to maintain targeted installed base of 340GW by 2047E.
- **Why retirement is imperative:** In Jan'23, the Central Electricity Authority (CEA) advised that no retirement or re-purposing of coal-based power stations will be done before 2030, considering the expected energy demand scenario and availability of capacity in the future. Currently, 368 coal-based thermal units with total capacity of 76GW have a unit size less than 500MW and are operating on sub-critical technology (high cost, high emissions, but more flexible), which would require replacements.
- **What can change our thesis:** The 340GW of installed coal-fired capacity by 2047E assumes 100GW of nuclear and 1,500GW-plus of renewables by 2047E. Currently, just 6,600MW of nuclear capacity is under construction and targeted to be completed by 2029–30E. Our channel check and commentaries by industry veterans indicate 100GW by 2047E seems rather ambitious. We argue a reality check may lift the targets for thermal power additions.

Masdar, in a partnership with EWEC, is developing world's first 1GW project with assurance of 24/7 renewable power by combining a 5.2GW solar PV with a 19GWh battery energy storage system at estimated capex of USD 6bn. Operational experience and tariff discovery during the next two–three years post-commissioning may change the current considerations of coal and nuclear as the only base load sources.

- **JM view:** Renewable intermittency, limited utility-scale storage capacity (currently <5GW) and rising evening peak demand make thermal generation critical to maintaining grid frequency and stability and ensuring uninterrupted supply. We remain optimistic about BHEL's performance (execution, margins) and maintain 'BUY' on the stock with a TP of INR 363 based on Mar'28E EPS ([Execution and margins, a few months away](#)).



Sudhanshu Bansal

sudhanshu.bansal@jmfl.com | Tel: (91 22) 66303128

Krishnakant Phafat

krishnakant.phafat@jmfl.com | Tel: (91 22) 66303563

Recommendation and Price Target

Current Reco.	BUY
Previous Reco.	BUY
Current Price Target (12M)	363
Upside/(Downside)	22.2%
Previous Price Target	320
Change	13.4%

Key Data – BHEL IN

Current Market Price	INR297
Market cap (bn)	INR1,034.0/US\$11.5
Free Float	30%
Shares in issue (mn)	3,482.1
Diluted share (mn)	3,482.1
3-mon avg daily val (mn)	INR2,741.5/US\$30.4
52-week range	303/176
Sensex/Nifty	85,063/26,179
INR/US\$	90.2

Price Performance

%	1M	6M	12M
Absolute	6.9	14.1	35.1
Relative*	7.7	12.0	23.8

* To the BSE Sensex

Financial Summary

(INR mn)

Y/E March	FY24A	FY25A	FY26E	FY27E	FY28E
Net Sales	229,205	283,395	345,000	416,500	489,000
Sales Growth (%)	3.5	23.6	21.7	20.7	17.4
EBITDA	6,126	12,416	24,054	41,429	52,466
EBITDA Margin (%)	2.6	4.4	7.0	9.9	10.7
Adjusted Net Profit	2,822	5,339	16,483	32,244	42,130
Diluted EPS (INR)	0.8	1.5	4.7	9.3	12.1
Diluted EPS Growth (%)	-56.9	89.2	208.7	95.6	30.7
ROIC (%)	1.7	2.6	6.1	9.8	10.9
ROE (%)	1.2	2.2	6.6	12.2	14.9
P/E (x)	366.4	193.7	62.7	32.1	24.5
P/B (x)	4.2	4.2	4.0	3.8	3.5
EV/EBITDA (x)	173.1	84.2	44.3	26.5	21.5
Dividend Yield (%)	0.1	0.3	0.8	1.5	2.0

Source: Company data, JM Financial. Note: Valuations as of 06/Jan/2026

JM Financial Research is also available on: Bloomberg - JMFR <GO>, FactSet, LSEG and S&P Capital IQ.

Please see Appendix I at the end of this report for Important Disclosures and Disclaimers and Research Analyst Certification.

Generation capacity

India has 220GW (excluding 47GW captive and 6.6GW lignite-based) of coal-fired capacity. In 2023, the Ministry of Power (MoP) decided to add another 97GW coal-based capacity by 2035E, out of which projects worth 17GW have been commissioned, 40GW are under construction, 23GW were recently awarded and 17GW are at the tendering stage. With commissioning of these projects, installed utility base will increase to about 300GW by 2035E.

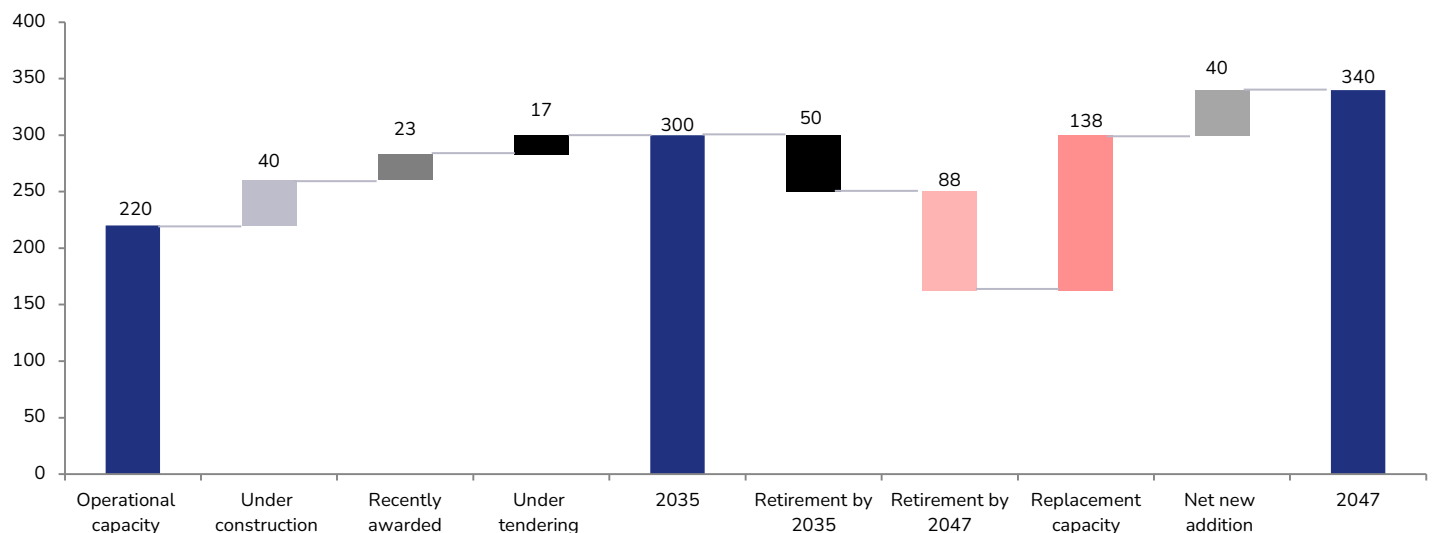
Capacity in 2047

India will require coal-fired power generation capacity of 340GW (excluding 80GW captive) by 2047E, implying a net addition of 40GW by 2047E as per the CEA's latest estimates.

Ageing of existing plants

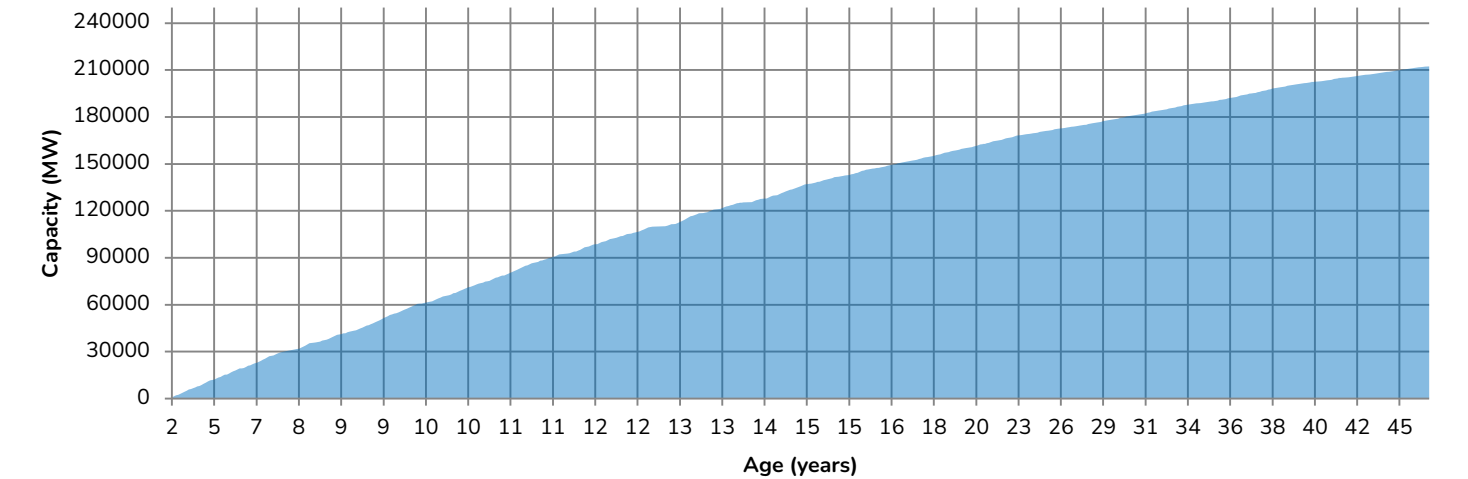
The CERC considers 25 years as the useful life of a coal/lignite-based thermal power plant, which is extendable to 35 years. Average age of coal-fired fleet in India at 16 years is relatively young vis-a-vis 44 years/44 years/34 years/17 years for US/Russia/EU/China. About 50GW of operating plants will exhaust their useful life (assuming 30 years) by 2035E and another 88GW by 2047E. So, India will need to order 170–180GW of new thermal power projects, first around 2029E/30E and then around 2035E, just to maintain a targeted installed base of 340GW by 2047E.

Exhibit 1. Coal-fired capacity pipeline (GW)



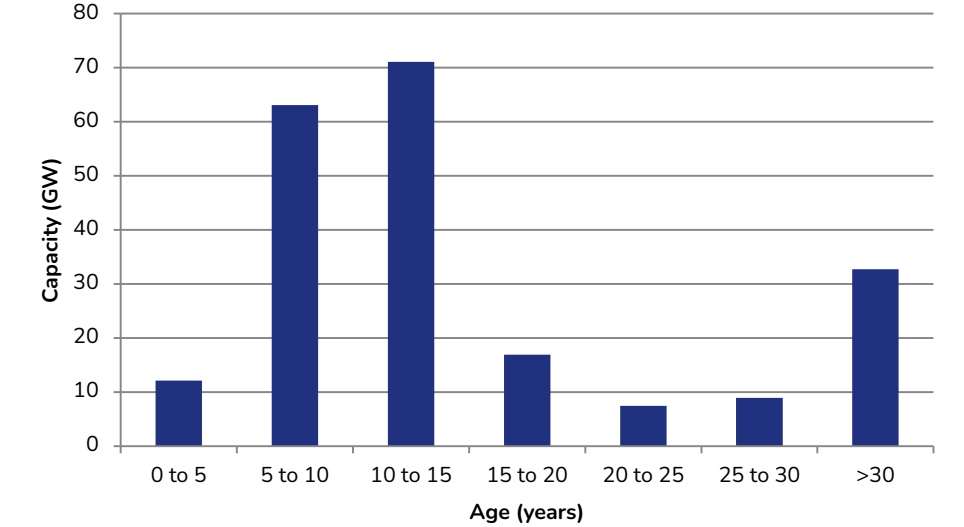
Source: Industry, CEA, JM Financial

Exhibit 2. Profile of installed thermal capacity by age



Source: CEA, JM Financial

Exhibit 3. Profile of installed thermal capacity by age



Source: CEA, JM Financial

Why retirement is must

In Jan'23, the Central Electricity Authority advised that coal-based power stations will not be permitted to retire or re-purposed before 2030 given the expected energy demand scenario and availability of capacity in the future. Thermal Power Plants were also advised the implementation of Renovations & Modernisation (R&M) and Life Extension (LE) of their units for running up to 2030E.

Currently, 368 coal-based thermal units with total capacity of 76GW have a unit size less than 500MW and are operating on sub-critical technology (high cost, high emissions, however more flexible).

Exhibit 4. Age of installed unit sizes (MW)

Age	<200	200-300	300-350	350-500	500	500-600	600	600-800	>800	Total
0 to 5		1,330			500	525		6,600	2,400	11,355
5 to 10	1,257	6,380	2,700	1,790	6,500	1,040	11,400	23,190	9,600	63,857
10 to 15	4,223	6,576	4,590	2,030	15,500	1,050	14,400	17,900	4,800	71,069
15 to 20	780	6,930	2,730		6,500					16,940
20 to 25	560	3,390			3,500					7,450
25 to 30	570	6,370			2,000					8,940
>30	1,945	22,250			8,500					32,695
Total	9,335	53,226	10,020	3,820	43,000	2,615	25,800	47,690	16,800	2,12,306

Source: CEA, JM Financial

Exhibit 5. Age of installed unit sizes (number of units)

Age	<200	200-300	300-350	350-500	500	500-600	600	600-800	>800	Total
0 to 5		5			1	1		10	4	21
5 to 10	11	25	9	5	13	2	19	35	11	130
10 to 15	42	26	15	5	31	2	24	27	6	178
15 to 20	6	29	9		13					57
20 to 25	4	15			7					26
25 to 30	5	29			4					38
>30	21	107			17					145
Total	89	236	33	10	86	5	43	72	21	595

Source: CEA, JM Financial

As the unit size reduces, O&M expenses increases as evident from the normative expenses allowed by CERC.

Exhibit 6. Operation and maintenance expenses (INR lakh/MW)

Year	200/210/ 250 MW Series	300/330/ 350 MW Series	500 MW Series	600 MW Series	800 MW Series and above
FY 2024-25	40.92	34.04	27.17	25.78	23.20
FY 2025-26	43.07	35.83	28.60	27.13	24.42
FY 2026-27	45.33	37.71	30.10	28.56	25.70
FY 2027-28	47.71	39.69	31.68	30.06	27.05
FY 2028-29	50.21	41.78	33.34	31.64	28.47

Source: CERC, JM Financial

There is a growing focus on the use of clean coal technology with higher operational efficiency and lower fuel consumption and hence lower carbon emissions. Supercritical units are designed with higher steam parameters of 247kg per square centimetre at 565/593°C. Therefore, the efficiency of such units is 2–3% higher than that of existing 500MW subcritical units. Ultra-supercritical (USC) plants operate at a further higher temperature of 600°C and at an efficiency level of up to 44%,

which is 3–4% higher than a supercritical unit. The technology requires lesser coal consumption and reduces carbon emissions by 0.7 kg/kWh.

Exhibit 7. Technical and operational parameters of various technologies (1/2)

Parameters	Subcritical	Supercritical	A-USC
Turbine cycle heat rate (kCal/kWh)	1,944	1,813	1,661
Boiler efficiency(%)	87.73	87.73	88.95
Gross HR (kCal/kWh)	2215	2066	1866
Gross efficiency (%)	38.81	41.61	46.07
Coal consumption (kg/kWh)	0.54	0.504	0.455
Saving (%)	-	6.74	15.75
CO2 emissions (Kg/MWh)	900	830	740

Source: Industry, JM Financial

What can change our thesis

The 340GW of installed coal-fired capacity by 2047E assumes 100GW of nuclear and above 1500GW-plus of renewables by 2047E. Currently, just 6,600MW of nuclear capacity is under construction and targeted to be completed by 2029–30. Based on our channel check and commentaries by industry veterans, 100GW by 2047 seems rather ambitious. Any reality check on this ambition may lead to an increase in targets for thermal power additions.

Masdar, a UAE state-owned renewable energy company, in a partnership with EWEC (Abu Dhabi's water and electricity distribution company), is developing the world's first 1GW project with assurance of 24/7 renewable power by combining a 5.2GW solar PV with a 19GWh battery energy storage system at estimated capex of USD 6bn. Operational experience and tariff discovery during next two–three years post-commissioning may change the current considerations of coal and nuclear as the only base load sources.

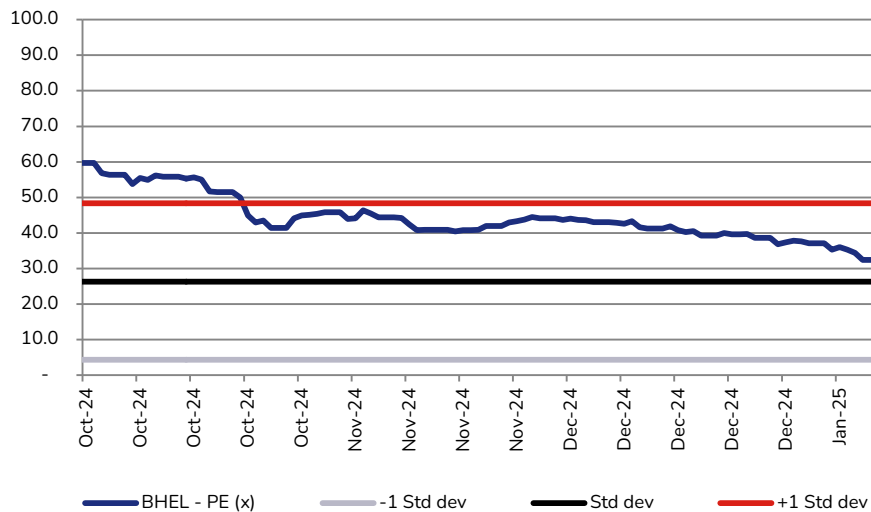
JM view

Renewable intermittency, limited utility-scale storage capacity (currently <5GW), and rising evening peak demand make thermal generation critical for maintaining grid frequency and stability and ensuring uninterrupted supply. We remain optimistic about BHEL's performance (execution, margins) and long-term prospects, and maintain **'BUY'** with a TP of INR 363 based on Mar'28E EPS.

Exhibit 8. Changes in estimates

Year-end Mar31 (INR mn)	FY26E	FY27E	FY28E
Revenues			
Old	3,45,000	4,16,500	4,89,000
New	3,45,000	4,16,500	4,89,000
Chg	0.00%	0.00%	0.00%
EBITDA			
Old	24,054	41,429	52,466
New	24,054	41,429	52,466
Chg	0.00%	0.00%	0.00%
EBITDA Margins			
Old	6.97%	9.95%	10.73%
New	6.97%	9.95%	10.73%
bps	0bps	0bps	0bps
PAT			
Old	16,483	32,244	42,130
New	16,483	32,244	42,130
Chg	0.00%	0.00%	0.00%
FD EPS			
Old	4.7	9.3	12.1
New	4.7	9.3	12.1
Chg	0.00%	0.00%	0.00%

Source: JM Financial

Exhibit 9. BHEL P/E (x)

Source: Bloomberg, JM Financial

Financial Tables (Consolidated)

Income Statement (INR mn)					
Y/E March	FY24A	FY25A	FY26E	FY27E	FY28E
Net Sales	229,205	283,395	345,000	416,500	489,000
Sales Growth	3.5%	23.6%	21.7%	20.7%	17.4%
Other Operating Income	9,723	0	0	0	0
Total Revenue	238,928	283,395	345,000	416,500	489,000
Cost of Goods Sold/Op. Exp	168,071	188,452	231,150	274,890	317,850
Personnel Cost	56,288	59,234	62,196	66,861	79,564
Other Expenses	0	0	0	0	0
EBITDA	6,126	12,416	24,054	41,429	52,466
EBITDA Margin	2.6%	4.4%	7.0%	9.9%	10.7%
EBITDA Growth	-35.7%	102.7%	93.7%	72.2%	26.6%
Depn. & Amort.	2,489	2,720	3,129	3,412	3,724
EBIT	3,637	9,696	20,925	38,017	48,742
Other Income	6,103	5,243	6,030	6,994	8,044
Finance Cost	7,313	7,483	6,351	4,957	4,450
PBT before Excep. & Forex	2,427	7,456	20,604	40,055	52,336
Excep. & Forex Inc/Loss(-)	0	0	0	0	0
PBT	2,427	7,456	20,604	40,055	52,336
Taxes	-396	2,117	4,121	7,811	10,205
Extraordinary Inc./Loss(-)	0	0	0	0	0
Assoc. Profit/Min. Int.(-)	0	0	0	0	0
Reported Net Profit	2,822	5,339	16,483	32,244	42,130
Adjusted Net Profit	2,822	5,339	16,483	32,244	42,130
Net Margin	1.2%	1.9%	4.8%	7.7%	8.6%
Diluted Share Cap. (mn)	3,482.1	3,482.1	3,482.1	3,482.1	3,482.1
Diluted EPS (INR)	0.8	1.5	4.7	9.3	12.1
Diluted EPS Growth	-56.9%	89.2%	208.7%	95.6%	30.7%
Total Dividend + Tax	1,395	2,638	8,145	15,932	20,817
Dividend Per Share (INR)	0.4	0.8	2.3	4.6	6.0

Source: Company, JM Financial

Cash Flow Statement (INR mn)					
Y/E March	FY24A	FY25A	FY26E	FY27E	FY28E
Profit before Tax	2,427	7,456	20,604	40,055	52,336
Depn. & Amort.	2,489	2,720	3,129	3,412	3,724
Net Interest Exp. / Inc. (-)	7,313	7,483	6,351	4,957	4,450
Inc (-) / Dec in WCap.	-34,446	17,295	-24,128	-43,150	-43,753
Others	-17,133	-13,848	-6,030	-6,994	-8,044
Taxes Paid	2,222	813	-4,121	-7,811	-10,205
Operating Cash Flow	-37,129	21,919	-4,194	-9,531	-1,493
Capex	-2,236	-2,681	-7,091	-7,800	-8,580
Free Cash Flow	-39,365	19,238	-11,285	-17,332	-10,073
Inc (-) / Dec in Investments	11,135	-28,727	-1,000	-1,000	-1,000
Others	4,410	4,098	6,030	6,994	8,044
Investing Cash Flow	13,309	-27,309	-2,061	-1,806	-1,537
Inc / Dec (-) in Capital	0	0	0	0	0
Dividend + Tax thereon	-1,395	-874	-8,145	-15,932	-20,817
Inc / Dec (-) in Loans	33,840	-684	-26,515	-6,274	-5,646
Others	-14,031	21,497	-6,351	-4,957	-4,450
Financing Cash Flow	18,414	19,939	-41,010	-27,163	-30,914
Inc / Dec (-) in Cash	-5,406	14,549	-47,266	-38,500	-33,943
Opening Cash Balance	66,981	61,575	76,124	28,858	-9,642
Closing Cash Balance	61,575	76,124	28,858	-9,642	-43,585

Source: Company, JM Financial

Balance Sheet (INR mn)					
Y/E March	FY24A	FY25A	FY26E	FY27E	FY28E
Shareholders' Fund	244,387	247,222	255,560	271,872	293,185
Share Capital	6,964	6,964	6,964	6,964	6,964
Reserves & Surplus	237,422	240,258	248,596	264,908	286,221
Preference Share Capital	0	0	0	0	0
Minority Interest	0	0	0	0	0
Total Loans	88,080	87,950	61,435	55,162	49,515
Def. Tax Liab. / Assets (-)	-42,013	-40,677	-40,677	-40,677	-40,677
Total - Equity & Liab.	290,454	294,494	276,318	286,356	302,023
Net Fixed Assets	28,564	31,084	35,046	39,434	44,291
Gross Fixed Assets	72,362	78,809	85,900	93,700	102,281
Intangible Assets	260	337	337	337	337
Less: Depn. & Amort.	46,622	49,342	52,471	55,883	59,607
Capital WIP	2,823	1,617	1,617	1,617	1,617
Investments	0	0	0	0	0
Current Assets	519,183	608,733	629,606	685,176	746,604
Inventories	72,206	98,695	104,261	125,869	147,779
Sundry Debtors	80,101	89,309	108,724	131,256	154,104
Cash & Bank Balances	61,575	76,124	28,858	-9,642	-43,585
Loans & Advances	0	0	0	0	0
Other Current Assets	305,302	344,605	387,763	437,692	488,306
Current Liab. & Prov.	257,553	345,660	388,672	438,592	489,210
Current Liabilities	153,663	220,908	246,367	275,916	305,877
Provisions & Others	103,889	124,752	142,305	162,676	183,332
Net Current Assets	261,630	263,073	240,934	246,584	257,395
Total - Assets	290,454	294,494	276,317	286,356	302,022

Source: Company, JM Financial

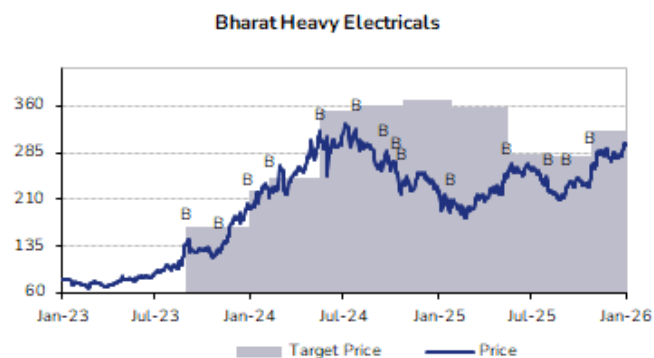
Dupont Analysis					
Y/E March	FY24A	FY25A	FY26E	FY27E	FY28E
Net Margin	1.2%	1.9%	4.8%	7.7%	8.6%
Asset Turnover (x)	0.4	0.5	0.5	0.6	0.6
Leverage Factor (x)	2.2	2.4	2.6	2.6	2.7
RoE	1.2%	2.2%	6.6%	12.2%	14.9%
Key Ratios					
Y/E March	FY24A	FY25A	FY26E	FY27E	FY28E
BV/Share (INR)	70.2	71.0	73.4	78.1	84.2
ROIC	1.7%	2.6%	6.1%	9.8%	10.9%
ROE	1.2%	2.2%	6.6%	12.2%	14.9%
Net Debt/Equity (x)	0.1	0.0	0.1	0.2	0.3
P/E (x)	366.4	193.7	62.7	32.1	24.5
P/B (x)	4.2	4.2	4.0	3.8	3.5
EV/EBITDA (x)	173.1	84.2	44.3	26.5	21.5
EV/Sales (x)	4.4	3.7	3.1	2.6	2.3
Debtor days	122	115	115	115	115
Inventory days	110	127	110	110	110
Creditor days	170	158	162	168	169

Source: Company, JM Financial

History of Recommendation and Target Price

Date	Recommendation	Target Price	% Chg.
4-Sep-23	Buy	165	
9-Nov-23	Buy	165	0.0
4-Jan-24	Buy	225	36.5
14-Feb-24	Buy	243	8.1
22-May-24	Buy	353	45.1
31-Jul-24	Buy	361	2.4
23-Sep-24	Buy	361	0.0
17-Oct-24	Buy	361	0.0
29-Oct-24	Buy	371	2.7
30-Jan-25	Buy	358	-3.4
19-May-25	Buy	281	-21.6
7-Aug-25	Buy	278	-0.9
13-Sep-25	Buy	278	0.0
30-Oct-25	Buy	320	15.1

Recommendation History



APPENDIX I

JM Financial Institutional Securities Limited

Corporate Identity Number: U67100MH2017PLC296081

Member of BSE Ltd. and National Stock Exchange of India Ltd.

SEBI Registration Nos.: Stock Broker - INZ000163434, Research Analyst - INH000000610

Registered Office: 7th Floor, Cnergy, Appasaheb Marathe Marg, Prabhadevi, Mumbai 400 025, India.

Board: +91 22 6630 3030 | Fax: +91 22 6630 3488 | Email: jmfirancial.research@jmfl.com | www.jmfl.com

Compliance Officer: Ms. Ashley Johnson | Tel: +91 22 6224 1862 | Email: ashley.johnson@jmfl.com

Grievance Officer: Ms. Ashley Johnson | Tel: +91 22 6224 1862 | Email: instcompliance@jmfl.com

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New Rating System: Definition of ratings	
Rating	Meaning
BUY	Expected return \geq 15% over the next twelve months.
ADD	Expected return \geq 5% and $<$ 15% over the next twelve months.
REDUCE	Expected return \geq -10% and $<$ 5% over the next twelve months.
SELL	Expected return $<$ -10% over the next twelve months.

Note: For REITs (Real Estate Investment Trust) and InvIT (Infrastructure Investment Trust) total expected returns include dividends or DPU (distribution per unit)

Previous Rating System: Definition of ratings	
Rating	Meaning
BUY	Total expected returns of more than 10% for stocks with market capitalisation in excess of INR 200 billion and REITs* and more than 15% for all other stocks, over the next twelve months. Total expected return includes dividend yields.
HOLD	Price expected to move in the range of 10% downside to 10% upside from the current market price for stocks with market capitalisation in excess of INR 200 billion and REITs* and in the range of 10% downside to 15% upside from the current market price for all other stocks, over the next twelve months.
SELL	Price expected to move downwards by more than 10% from the current market price over the next twelve months.

* REITs refers to Real Estate Investment Trusts.

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