

Utilities & Power Equipment

Transition Tracker #28



Power demand remained muted in Oct'25, with energy/ peak demand declining by 6%/ 4% YoY. Overall generation fell 8% YoY driven by a 14% YoY drop in thermal generation, while hydro and renewable generation rose 14% and 10% YoY. During the month, 2.3GW of RE tenders were issued and 3.6GW of RE capacity was allocated. Solar and wind capacity additions stood at 24.2GW and 3.6GW in YTD FY26 vs. 10.3GW and 1.8GW in YTD FY25. Muted demand, coupled with higher hydro and renewable generation, led to a decline in thermal PLF to 58% in Oct'25 vs. 67% in Oct'24. Coal production and offtake declined 8% and 5% YoY. Merchant tariffs improved to INR 4.4/unit from INR 3.9/unit in Oct'24. Solar PV module prices have remained flat since Jan'25, while polysilicon prices have begun to rebound after bottoming out at USD 5.6/kg in Jun'25 and silver prices have hit a fresh high of USD 50/troy ounce. In this report, we present 52 charts and exhibits to help track the ongoing energy transition.

- **Power demand:** Energy/ peak power demand remained muted in Oct'25 & stood at 131 BU (-6%YoY)/ 210 GW (-4% YoY). With this, YTD FY26 Energy/ Peak demand stands at 1,027BU/ 243GW, 0% YoY/-3% YoY.
- **Generation:** Total power generation (conventional) was 120BU in Oct'25 (-11% YoY) due to decline in thermal generation (-14% YoY). Hydro generation during Oct'25 was at 16BU (14% YoY), an outcome of better rainfall. Renewables generated 20BU (10%YoY) with increase in solar and wind generation by 3%/83% YoY.
- **Renewables:** In Oct'25, a total of 2,330MW of RE tenders were issued vs. 6,802 in Oct'24. With this 20,698 MW of tenders have been issued during 7MFY26. SECI has invited bids for a 1200MW/4800MWh FDRE and 600MW wind projects. In standalone BESS, WBSEDCL and NVVN have issued tender of 250 MW/ 1000MWh and 250MW/ 500MWh. In Oct'25, a total of 3600MW of RE capacity and 6000MWh of energy storage capacity were allocated. SECI's 2,000 MW with 1,000 MW/4,000 MWh Solar + BESS auction was awarded with a tariff of INR 2.86-2.87 per unit. SJVN's 6000 MWh peak power supply tender was awarded in Oct'25 with a tariff of INR 6.74-6.75 per unit. In standalone BESS, RVUNL awarded its 1,000 MW/2,000 MWh tender with an annual tariff of INR 2.1mn/MW.
- **Capacity addition:** In H1FY26, about 21,686MW of Solar capacity and 3,086MW of Wind capacity were added, taking the cumulative RE capacity to 197.5GW (excluding large hydro). Wind capacity addition in Oct'25 was at 476MW vs. 354MW in Oct'24. Solar capacity addition is keeping up its momentum with addition of 2,592MW in Oct'25 vs. 1,357MW capacity in Oct'24. Hydro capacity addition in H1FY26 was at 2,380MW.
- **Merchant tariff:** WAvG Market Clearing Price (MCP) on IEX stood at INR 4.4/kWh in Oct'25 (purchase/ sell/ cleared vol. 9618/13,099/6,017GWh) vs. INR 3.9/kWh in Oct'24 (purchase/ sell/ cleared vol. 7118/10,425/4,727GWh) indicating subdued demand.
- **Capacity utilisation (PLF):** The PLF of coal-fired/ gas-fired plants stood at 58%/ 10% during Oct'25 vs. 67%/14% during Oct'24.
- **Coal production:** Coal production in Oct'25 was 77MT, -8% YoY taking YTD FY26 production to 528MT, -2% YoY. Coal dispatches in Oct'25 was 80MT, -5% YoY, taking YTD FY26 dispatches to 567MT, -1% YoY. In Oct'25, actual coal stock at power plants stood at 43.8MT (16 days) vs. normative coal stock of 54.3MT (19 days)
- **Raw material prices:** The price of polysilicon surged nearly 50% from USD 4.9/kg in June to USD 7.3/kg in Oct, fuelled by potential consolidation discussed among Chinese firms. Silver prices have reached new highs of USD 50/troy ounce (61% YoY). Price of global TopCon modules has been stable at USD 0.09/Wp (-14% YoY) since Oct'25. Prices of domestic modules for Mono PERC 500Wp/ Bifacial Modules/ Topcon Modules stood at INR 18.2/Wp / INR18.5/Wp / INR 19.5/Wp, showing signs of traction after hitting a low of INR 13.5/Wp / INR 14.2/Wp / INR 15.5/Wp in Sep'24.

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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.

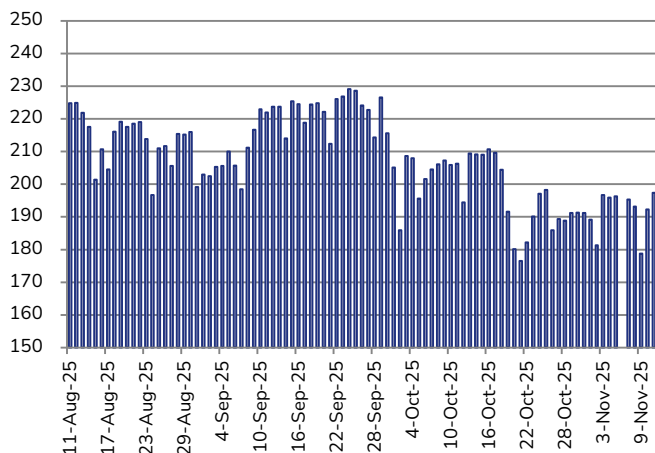
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Power Demand

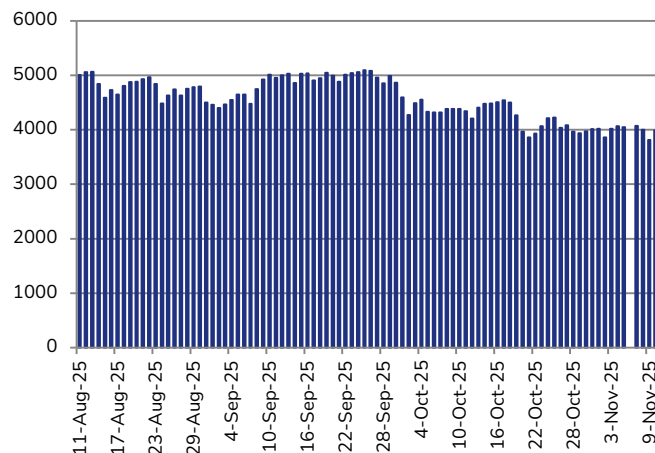
- Power consumption in Oct'25 was 131BU, -6% YoY. Peak demand met reached 243GW, -3% YoY.

Exhibit 1. Peak demand (GW), daily



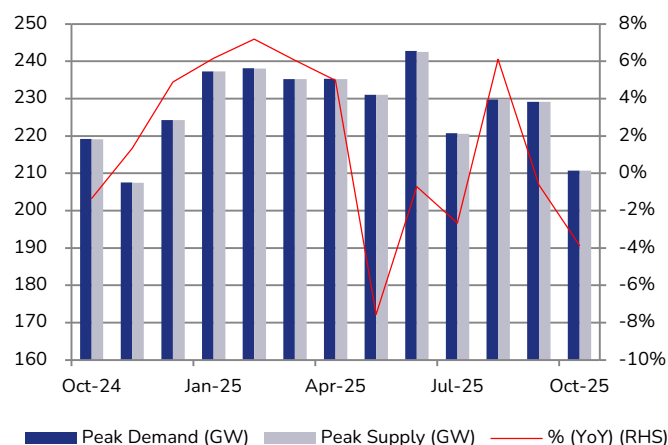
Source: CMIE, JM Financial

Exhibit 2. Energy demand (MU), daily



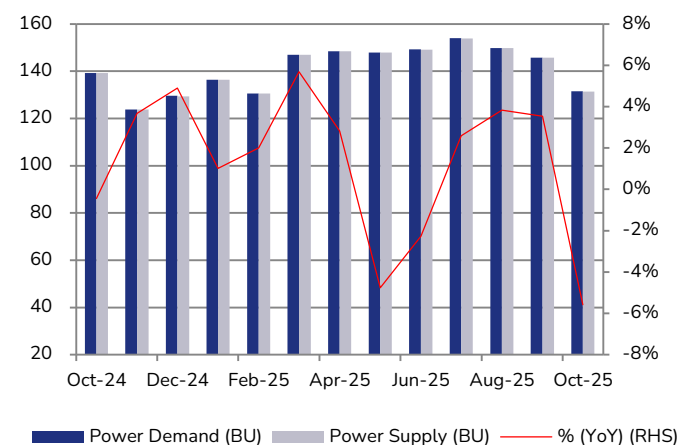
Source: CMIE, JM Financial

Exhibit 3. Peak power demand and supply, monthly



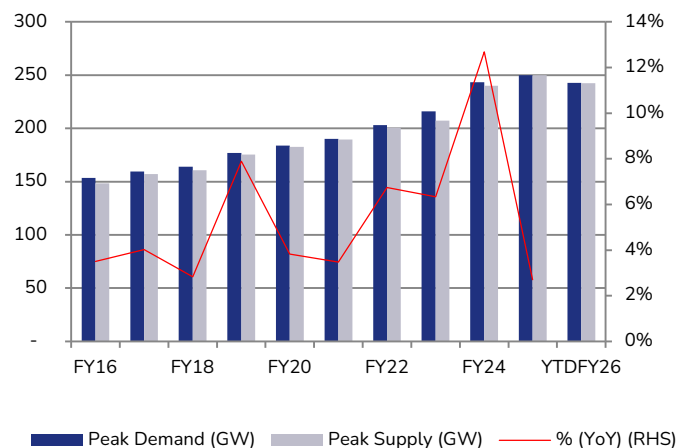
Source: CEA, CMIE, JM Financial

Exhibit 4. Energy demand and supply, monthly



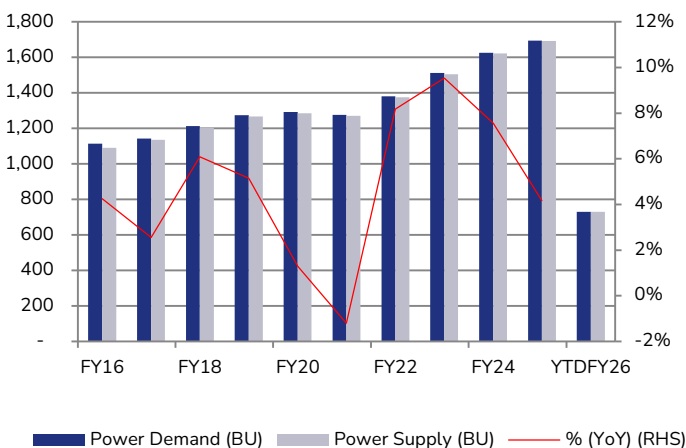
Source: CEA, CMIE, JM Financial

Exhibit 5. Peak power demand and supply, annual



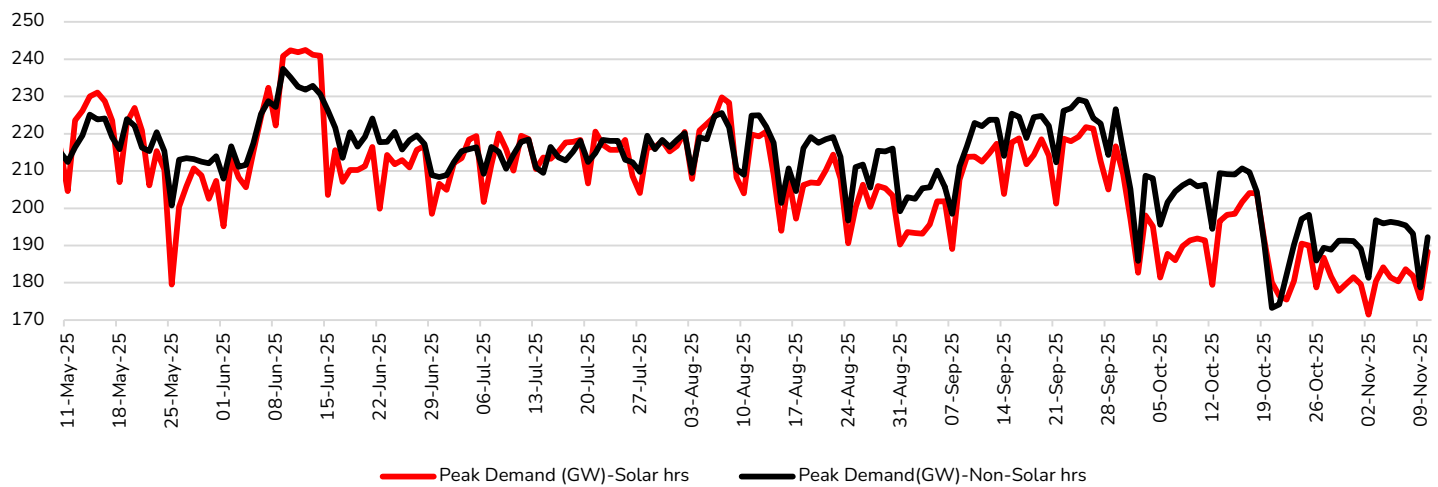
Source: CEA, CMIE, JM Financial

Exhibit 6. Energy demand and supply, annual



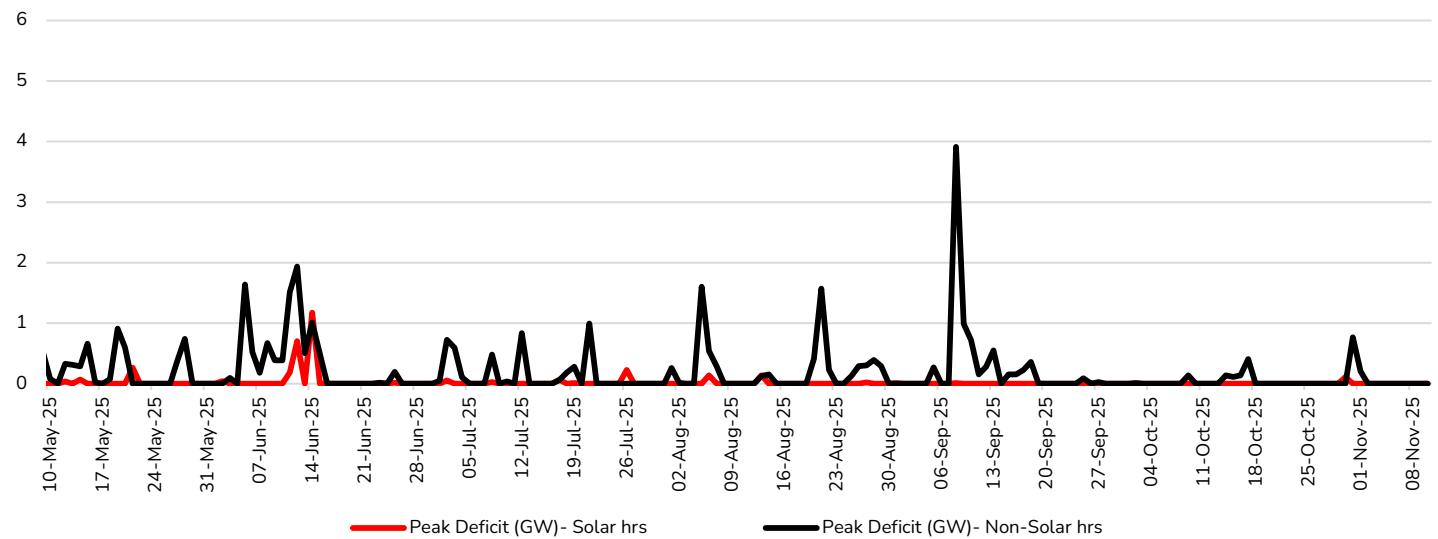
Source: CEA, CMIE, JM Financial

Exhibit 7. Peak demand, Solar and Non-Solar hrs (GW)



Source: Grid controller of India Ltd, JM Financial

Exhibit 8. Peak Deficit Solar and Non Solar hrs (GW)



Source: Grid controller of India Ltd, JM Financial

Installed Generation Capacity & additions

- Share of non-fossil/ renewables in total installed capacity increased from 29% in FY15 to 51% in H1FY26.

Exhibit 9. Installed generation capacity (MW)

Fuel Type	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	H1FY26
Coal	185,173	192,163	197,172	194,445	198,735	202,675	204,080	205,236	210,970	215,193	217,458
Diesel	994	838	838	638	510	510	510	589	589	589	589
Gas	24,509	25,329	24,897	24,937	24,955	24,924	24,900	24,824	25,038	24,533	20,132
Total Fossil	210,675	218,330	222,907	226,279	230,810	234,728	236,109	237,269	243,217	246,936	244,800
Nuclear	5,780	6,780	6,780	6,780	6,780	6,780	6,780	6,780	8,180	8,180	8,780
Hydro (> 25MW)	42,783	44,478	45,293	45,399	45,699	46,209	46,723	46,850	46,928	47,728	50,108
Small hydro (<= 25 MW)	4,177	4,380	4,486	4,593	4,683	4,787	4,849	4,944	5,003	5,101	5,134
Wind	25,088	32,280	34,046	35,626	37,669	39,247	40,358	42,633	45,887	50,038	53,124
Biomass	4,551	8,182	8,701	9,104	9,861	10,146	10,206	10,248	10,355	10,743	10,757
Urban & industrial waste	127	130	138	138	140	169	477	554	586	840	855
Solar	4,879	12,289	21,652	28,181	34,406	40,085	53,997	66,780	81,814	105,647	127,332
Total Non-Fossil	87,385	108,519	121,096	129,821	139,239	147,423	163,388	178,790	198,759	228,276	256,090
Total Installed capacity	298,060	326,849	344,002	356,100	370,048	382,151	399,497	416,059	441,970	475,212	500,889

Source: CEA, CMIE, JM Financial

- Share of RE in total annual generation increased from 5.6% in FY16 to 16.8% in YTD FY26.

Exhibit 10. Break-up of Generation (MU)

Fuel Type	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	YTD FY26
Thermal	1,037,059	1,072,224	1,042,748	1,032,514	1,114,715	1,206,211	1,326,549	1,363,890	752,276
Hydro	126,123	134,894	155,769	150,300	151,627	162,099	134,054	148,634	123,610
Nuclear	38,346	37,813	46,473	43,029	47,112	45,861	47,937	56,680	32,046
RE	101,840	126,759	138,337	147,248	170,912	203,552	225,835	255,009	186,423
Others	4,778	4,407	5,794	8,766	7,493	6,742	4,716	5,484	7,045
Total	1,308,146	1,376,096	1,389,121	1,381,855	1,491,859	1,624,465	1,739,091	1,829,698	1,105,510

Source: CMIE, JM Financial

- India added RE capacity of 24.8GW in H1FY26.

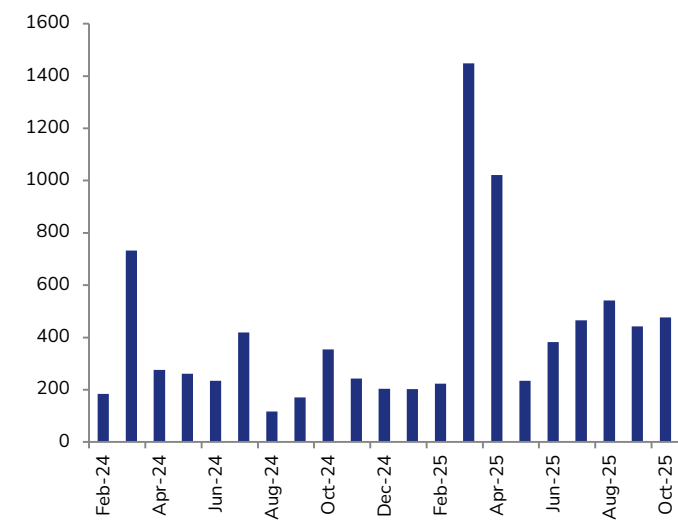
Exhibit 11. Capacity addition (MW), Annual

Fuel Type	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	H1FY26
Thermal	7,655	4,577	3,373	4,530	3,919	1,381	1,160	5,948	3,719	-2,136
Nuclear	1,000	-	-	-	-	-	-	1400	-	600
Hydro	1,695	815	106	300	510	513	128	78	800	2,380
Renewables										
Solar	7,410	9,363	6,529	6,225	5,680	13,911	12,784	15,033	23,833	21,686
Wind	7,192	1,766	1,580	2,043	1,578	1,111	2,276	3,253	4,151	3,086
Others	3,837	633	510	849	417	430	215	198	740	61
Total Renewables	18,439	11,762	8,619	9,118	7,675	15,452	15,274	18,485	28,724	24,833
Total Capacity addition	28,789	17,154	12,098	13,948	12,103	17,345	16,562	25,911	33,242	25,667

Source: CMIE, JM Financial; *Net addition

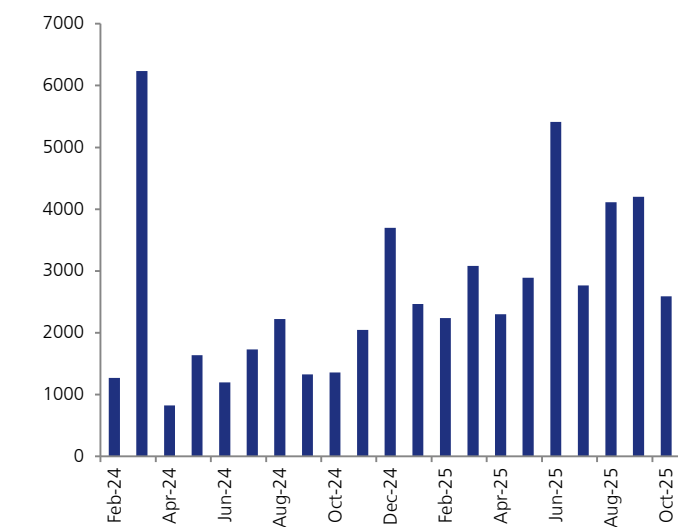
- Wind/ Solar capacity addition in Oct'25 was 476MW/ 2592MW vs. 354MW/ 1357MW in Oct'24.

Exhibit 12. Wind capacity addition monthly (MW)



Source: CMIE, JM Financial

Exhibit 13. Solar capacity addition monthly (MW)

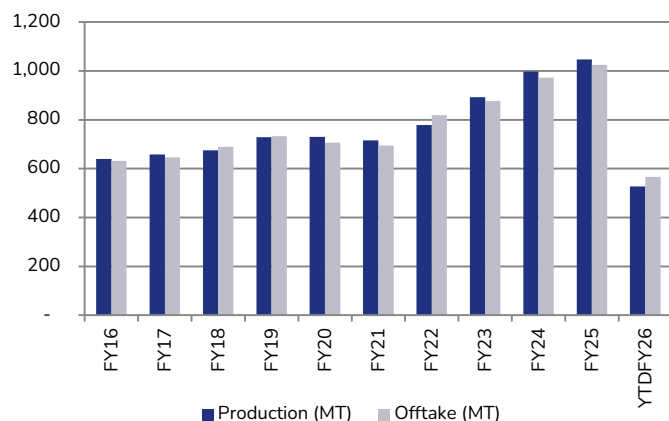


Source: CMIE, JM Financial

Coal production, supply and prices

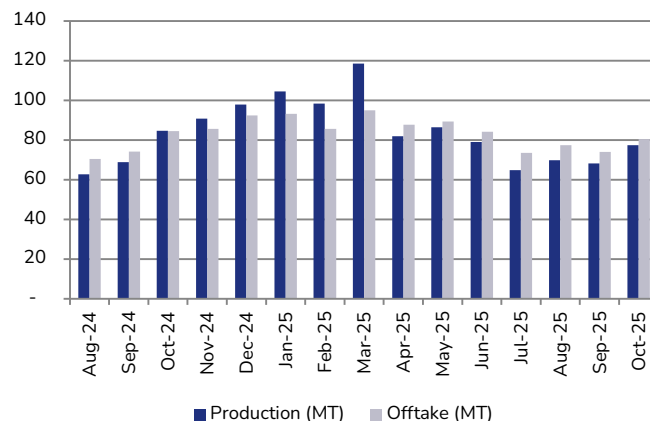
- Coal production was 68MT in Sep'25 vs. 69MT in Sep'24.
- Coal dispatches in Sep'25 was 74MT vs. 74MT in Sep'24.
- Indonesian coal prices for 5,900kCal/kg stood at USD 77.7/MT in Oct'25, 3% MoM, -16% YoY.
- Coal stock at power plants stood at 45.8MT as of Sep'25 vs. 36.7MT as of Sep'24.

Exhibit 14. Coal production and offtake (MT), annual



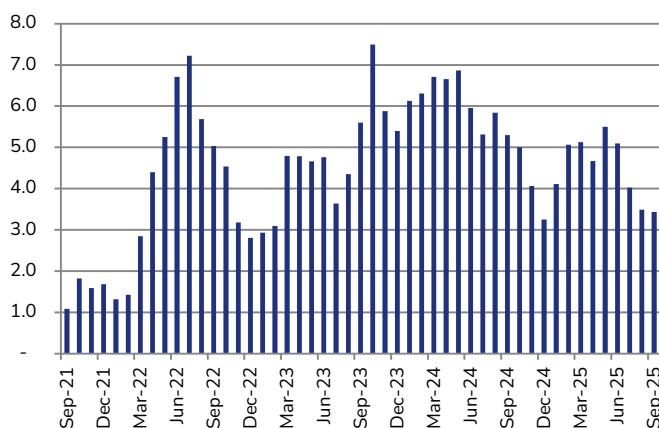
Source: CMIE, JM Financial

Exhibit 15. Coal production and offtake (MT), monthly



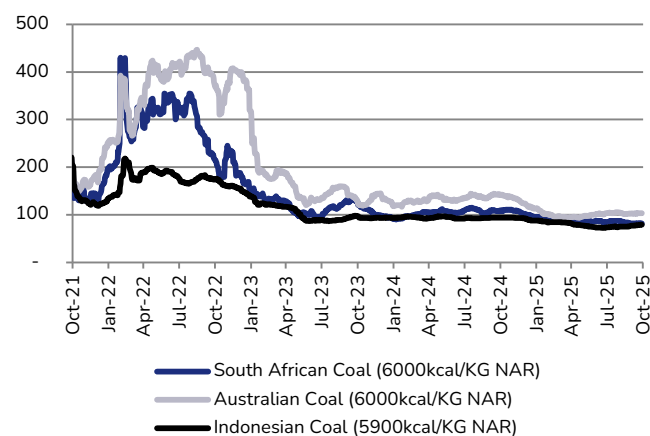
Source: CMIE, JM Financial

Exhibit 16. Coal imports (MT), monthly



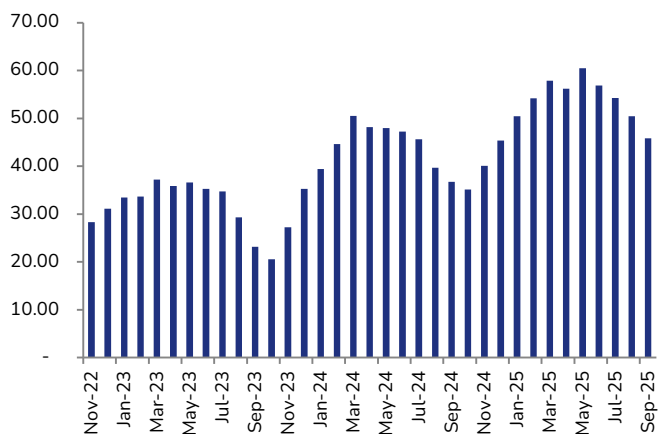
Source: CMIE, JM Financial

Exhibit 17. Imported coal price trend (\$/ton)



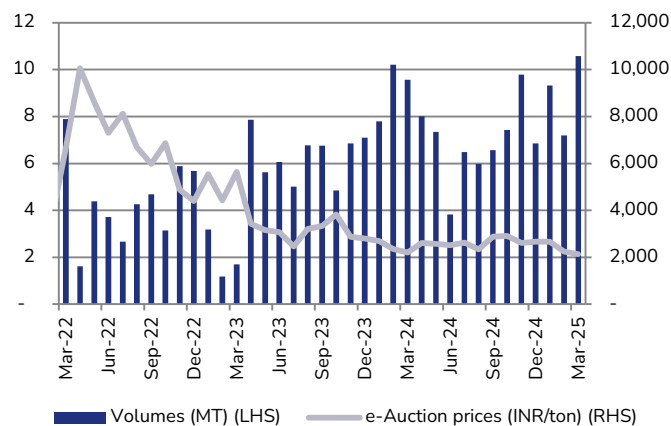
Source: Elekre, JM Financial

Exhibit 18. Coal stock at power plants, MT



Source: CMIE, JM Financial

Exhibit 19. Coal e-auction volume and price, monthly

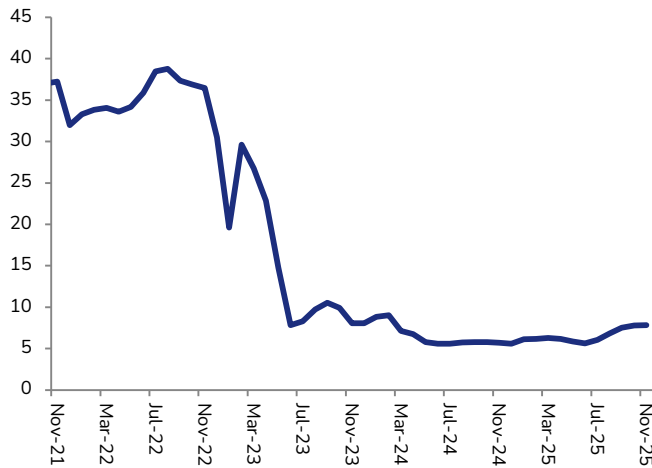


Source: Elekre, JM Financial *e-auction data pertains to power sector

Solar components prices

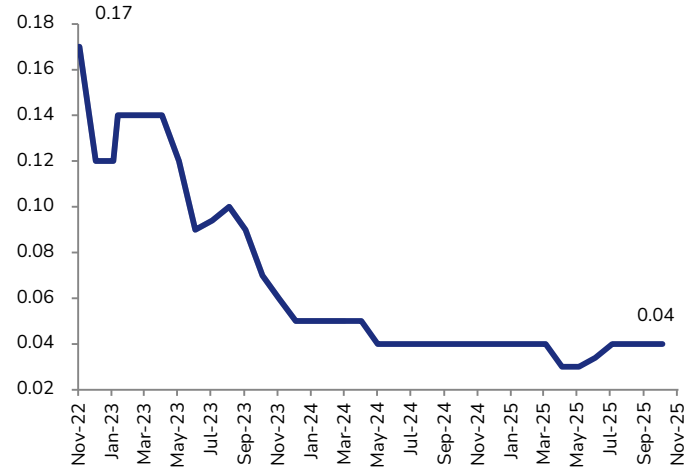
- The prices of solar components, viz., polysilicon, wafers and cells remain stable.

Exhibit 20. Polysilicon prices (USD/kg)



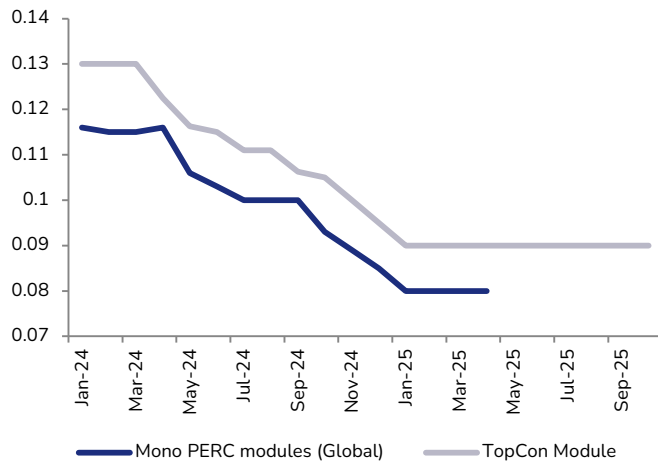
Source: Bloomberg, JM Financial

Exhibit 21. Solar cell prices (USD/watt)



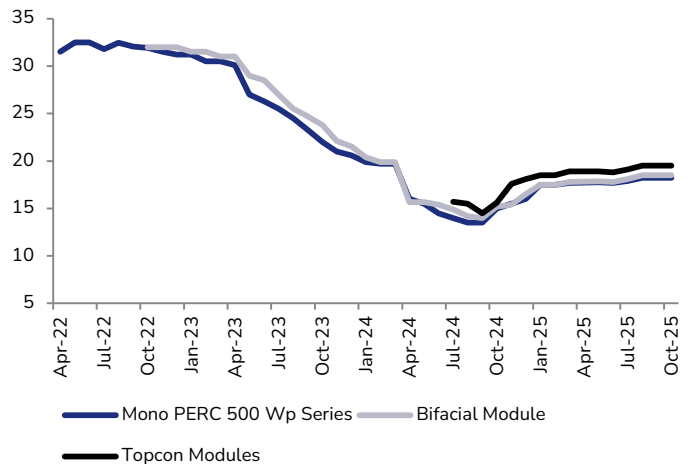
Source: Bloomberg, JM Financial

Exhibit 22. Global module price trends (USD/watt)



Source: JMK Research, JM Financial

Exhibit 23. Avg. prices of domestic modules (INR/watt)

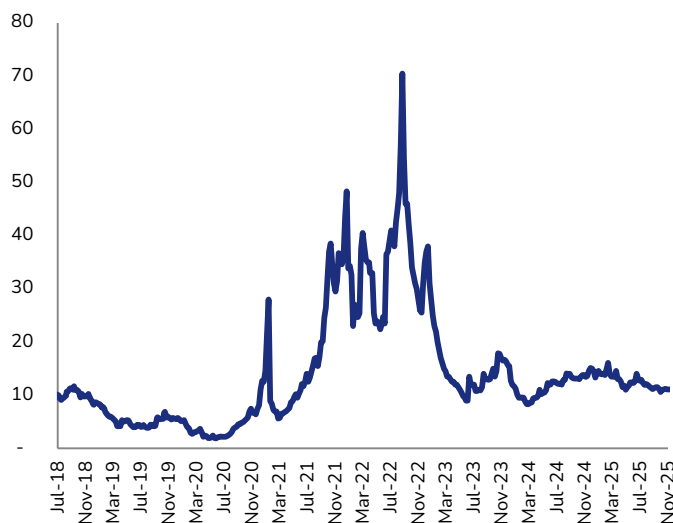


Source: JMK Research, JM Financial

Raw material prices

- Prices of key raw materials like LNG and Steel have been stable. Silver and Aluminium prices are reaching new highs.
- LNG prices moderated from USD 70/mmBtu in Aug'22 to USD 11/mmBtu in May'23 before increasing to USD 17.75/mmBtu in Nov'23; prices now has declined to USD 11.1/mmBtu in Nov'25.
- Domestic HRC steel prices declined from a high of INR 76K/t in Apr'22 to INR 47k/t in Dec'24 and are currently at INR 48.1K/t in Oct'25.

Exhibit 24. Asia spot LNG weekly prices (USD/mmBtu)



Source: Bloomberg, JM Financial

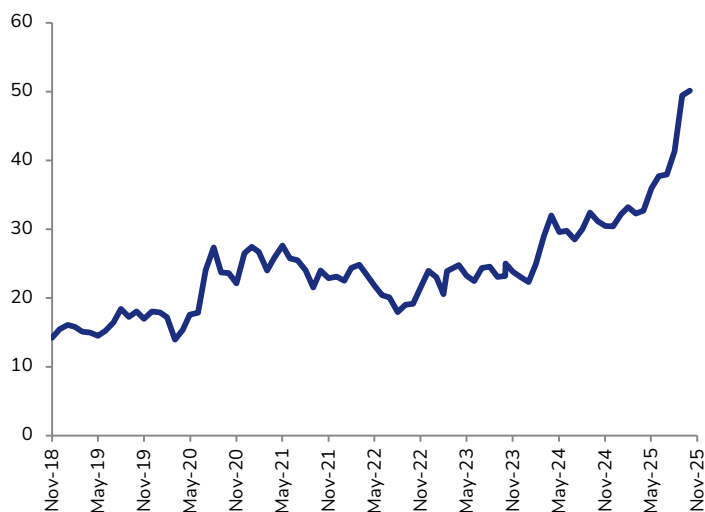
Exhibit 25. Domestic HRC steel prices (INR/ton)



Source: Bloomberg, JM Financial

- Silver prices have touches fresh high of INR USD 50.1/troy ounce (61% YoY) in Nov'25
- Aluminium prices have declined from USD 3,369/MT in Feb'22 to USD 2,152/MT in Jun'23. In Nov'25 Aluminium prices were at ~ USD 2,864/MT (10% YoY).

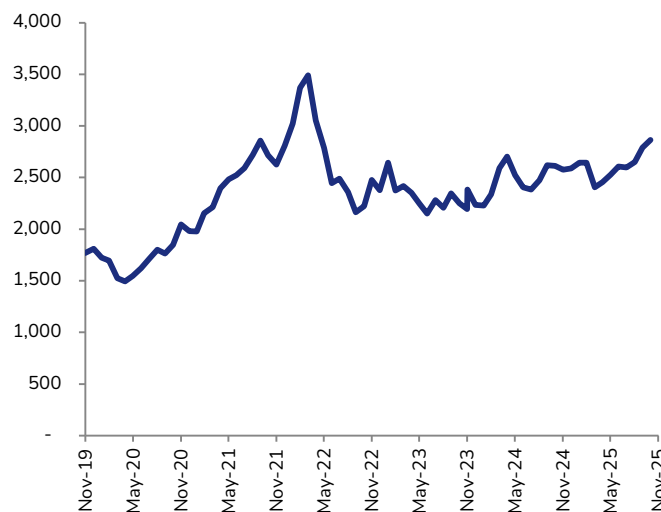
Exhibit 26. Silver prices (USD/troy ounce)



Source: Bloomberg, JM Financial

* Silver paste is the biggest cost component of making wafers into cells and accounts for about 6-7% of the cost for integrated module production. The avg. use of silver in silicon PV modules was 18.5 milligrams per watt in 2020.; 1 troy ounce= 31.1 g

Exhibit 27. Aluminium prices (USD/MT)



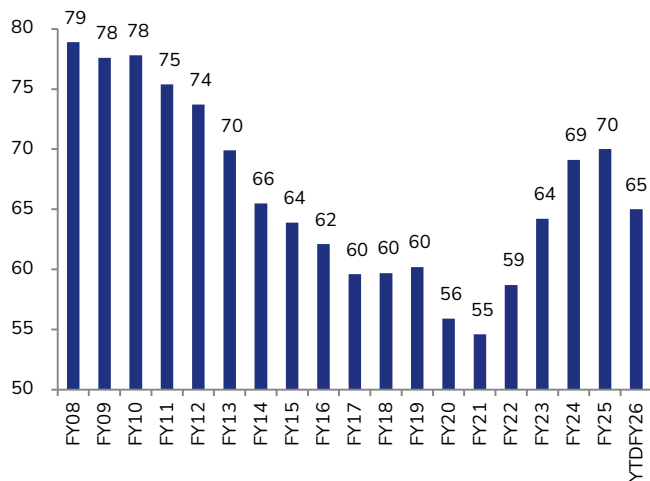
Source: Bloomberg, JM Financial

* Module frames are made of aluminium, making it one of the major cost components of module assembly. Typical consumption of aluminium in silicon PV modules is 5-6 grams per watt.

Plant Load Factor (PLF)

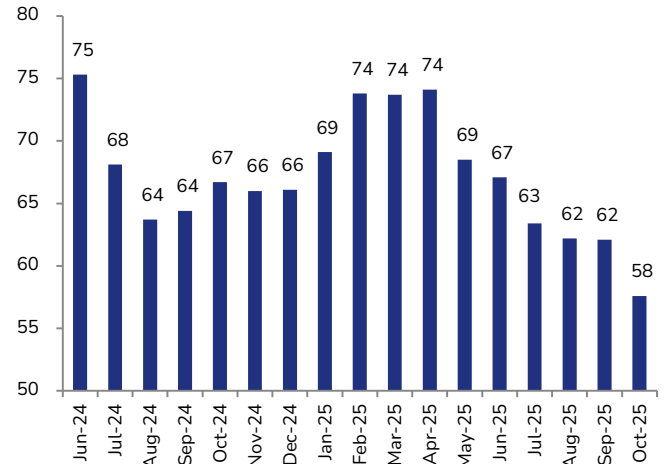
- Monthly Coal PLF/ Gas PLF stood at 58%/10% in Oct'25 vs. 67%/13% in Oct'24.

Exhibit 28. Annual PLF for coal-fired power plants (%)



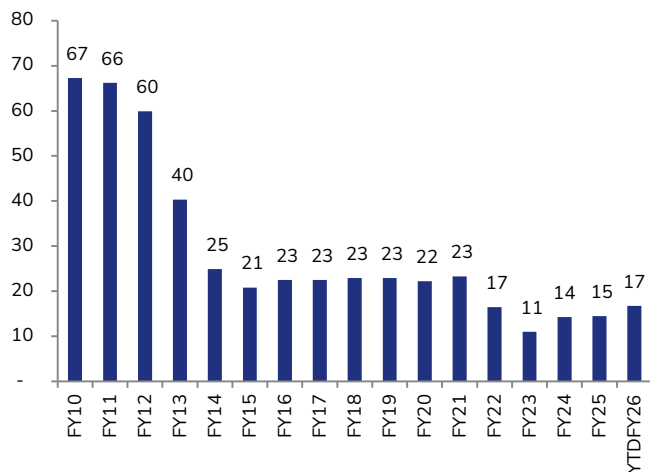
Source: CMIE, JM Financial

Exhibit 29. Monthly PLF for coal-fired power plants (%)



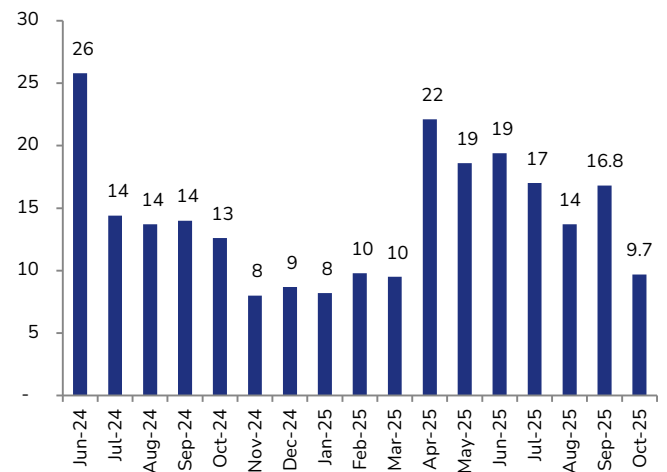
Source: CMIE, JM Financial

Exhibit 30. Annual PLF for gas-fired power plants (%)



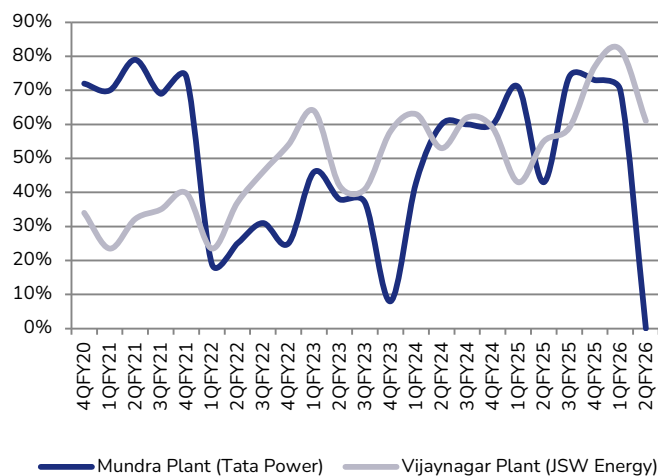
Source: CMIE, JM Financial

Exhibit 31. Monthly PLF for gas-fired power plants (%)



Source: CMIE, JM Financial

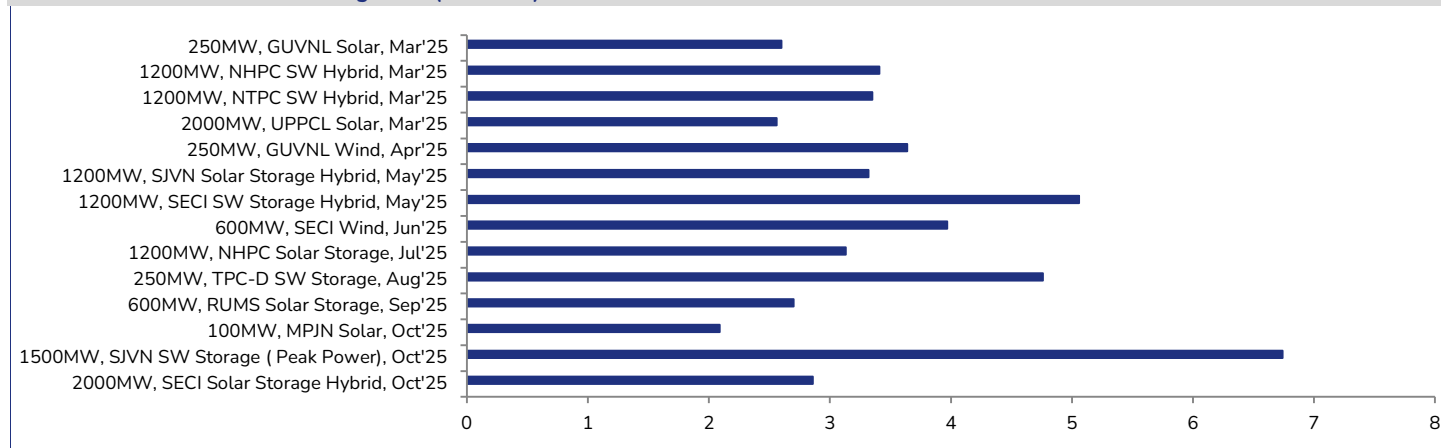
Exhibit 32. Imported coal-based plants, PLF (%)



Source: Company, NPP, JM Financial

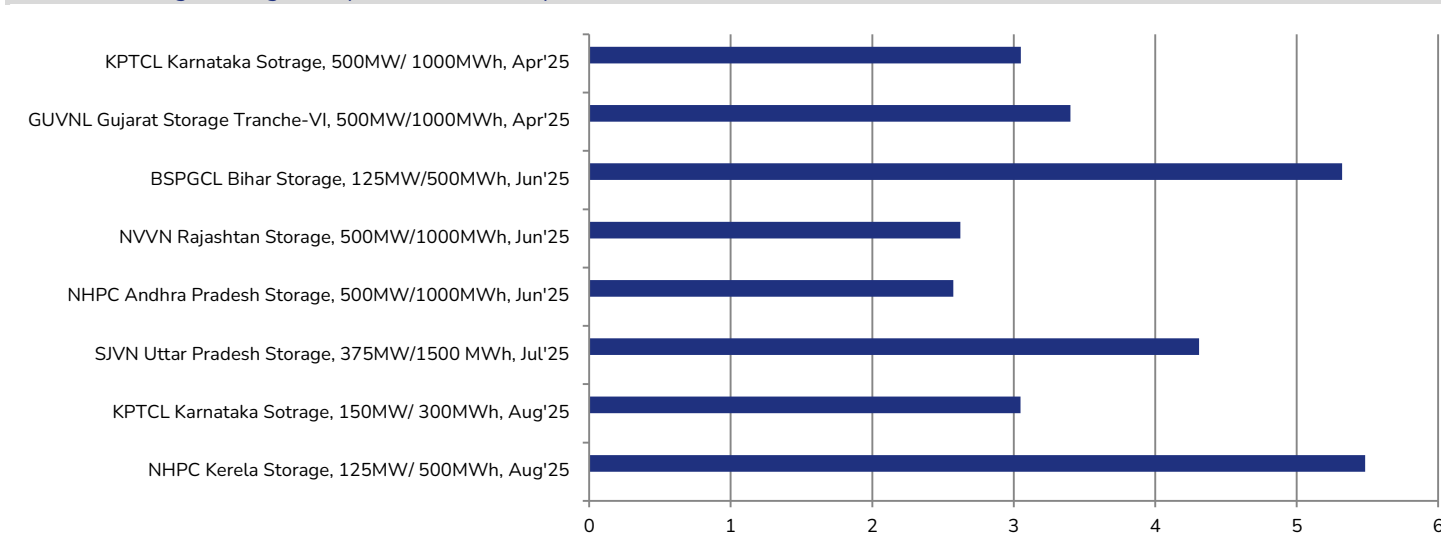
Renewable tariff bidding trend

Exhibit 33. Renewable tariff bidding trend (INR/kWh)



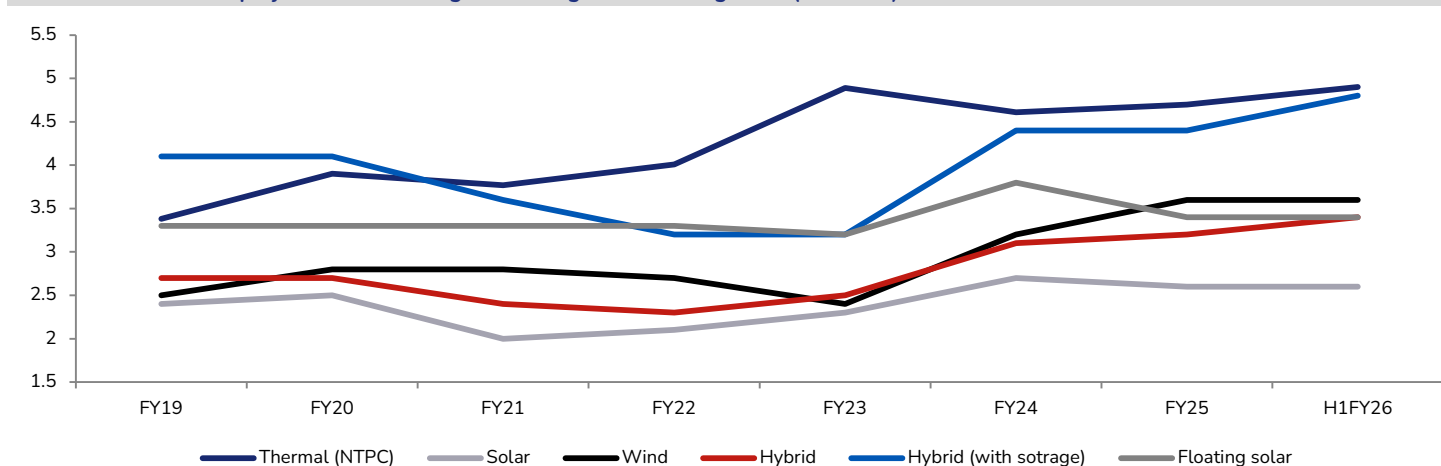
Source: Elekre, JM Financial

Exhibit 34. Storage bidding trend (INR mn/ MW/ Year)

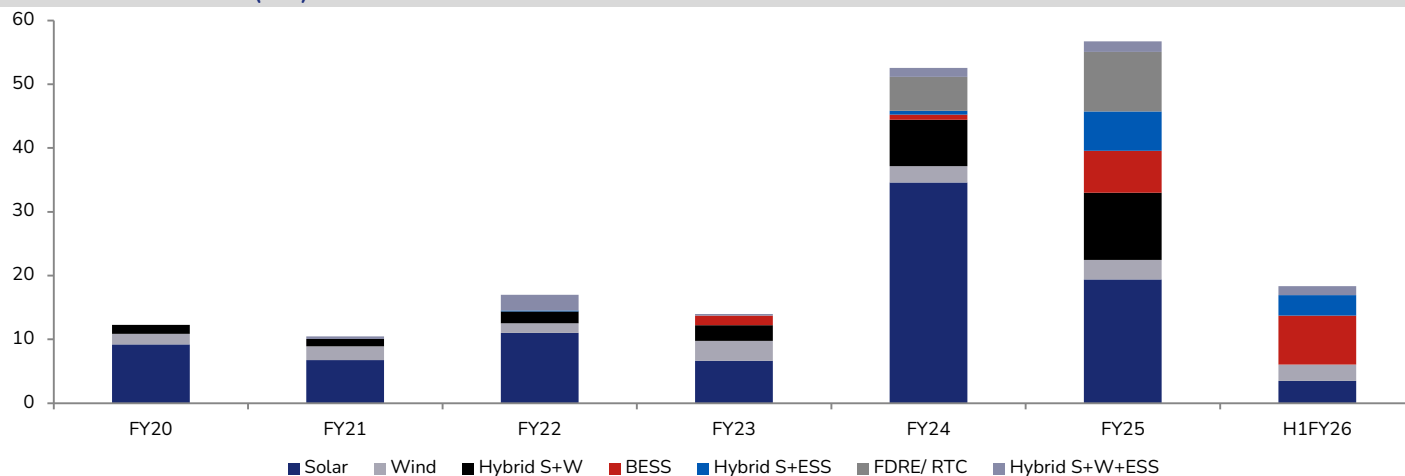


Source: JMK Research, JM Financial

Exhibit 35. Renewable projects – annual weighted average tariff bidding trend (INR/kWh)



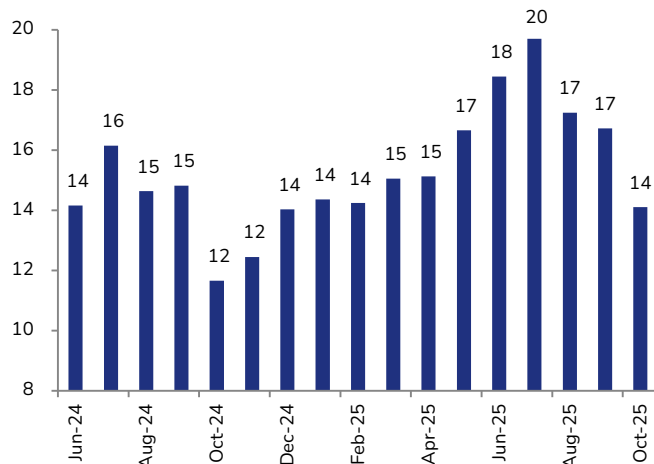
Source: Elekre, JM Financial

Exhibit 36. RE bids issued (GW)

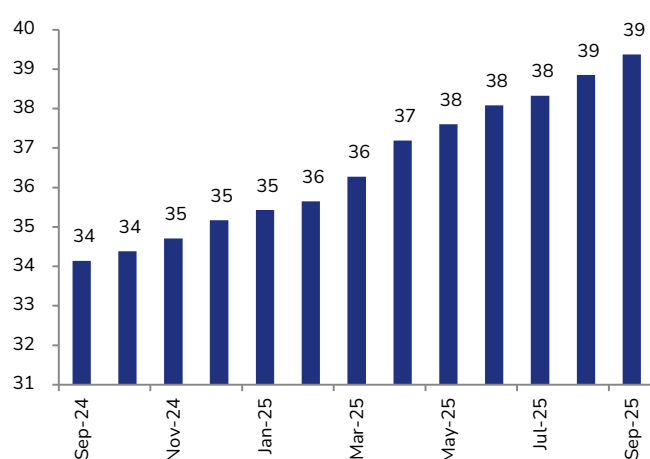
Source: JMK Research, JM Financial

Share of renewables in total generation

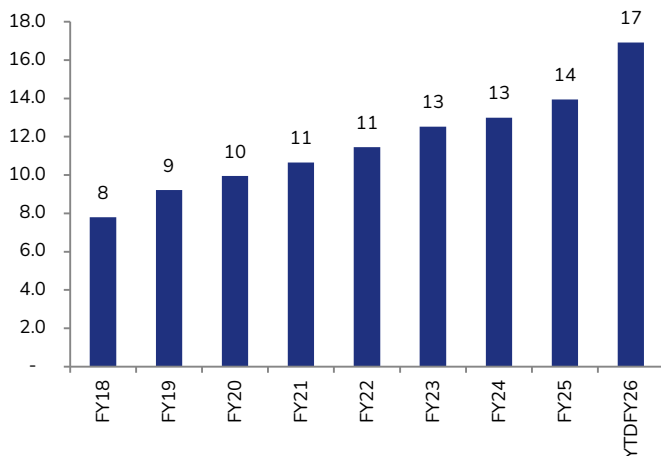
- Share of RE in total annual generation increased from 5.6% in FY16 to 17% in YTD FY26.
- Share of RE in total installed capacity increased from 12% in FY14 to 39% in as on Sep'25.

Exhibit 37. Share of RE in total generation, monthly (%)

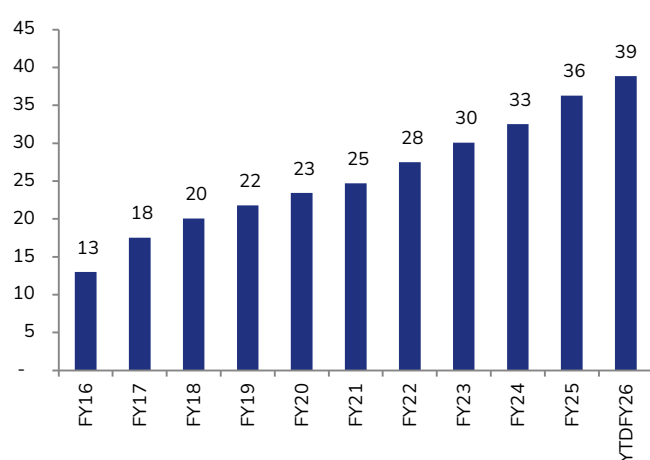
Source: CMIE, JM Financial

Exhibit 38. Share of RE in total installed capacity, monthly (%)

Source: CMIE, JM Financial

Exhibit 39. Share of RE in total generation, annual (%)

Source: CMIE, JM Financial

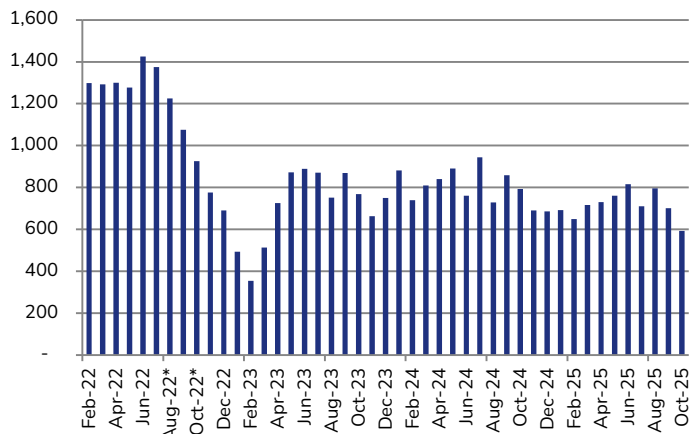
Exhibit 40. Share of RE in total installed capacity, annual (%)

Source: CMIE, JM Financial

Outstanding dues of discoms and other parameters

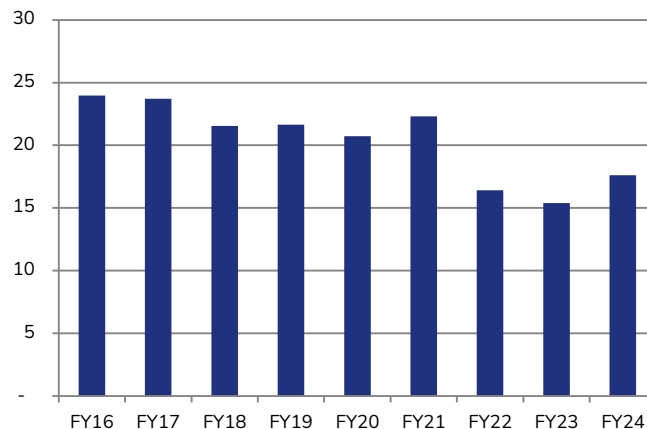
- Outstanding dues of discoms declined sharply from INR 1,426bn in Jun'22 to INR 649bn in Feb'25. Currently, it stands at ~INR 592bn.
- Annual per capita consumption of electricity witnessed a healthy growth from 1,075kWh in FY16 to 1,395kWh in FY24.

Exhibit 41. Discoms' current o/s dues to gencos (INR bn)



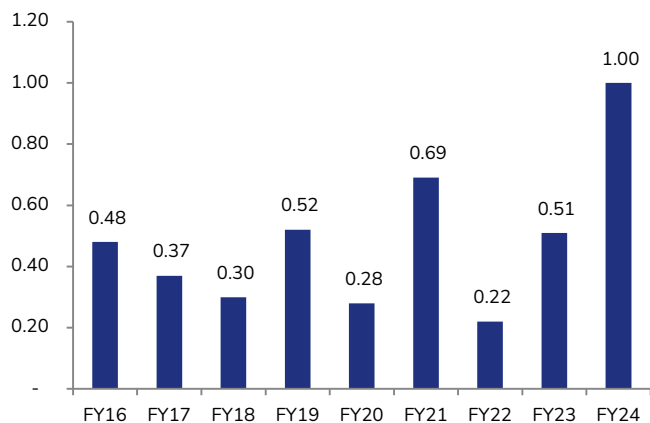
Source: Elektre, JM Financial; * O/s dues for Aug-Nov'22 are estimated

Exhibit 42. Trend in AT&C losses (%)



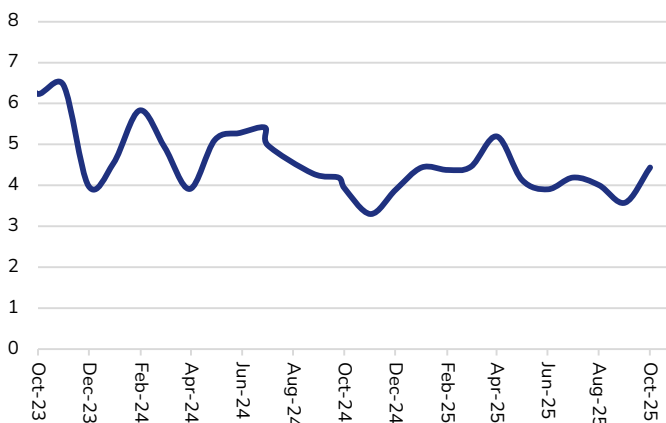
Source: CEA, MoP, UDAY, JM Financial

Exhibit 43. ACS-ARR gap (INR/kWh)



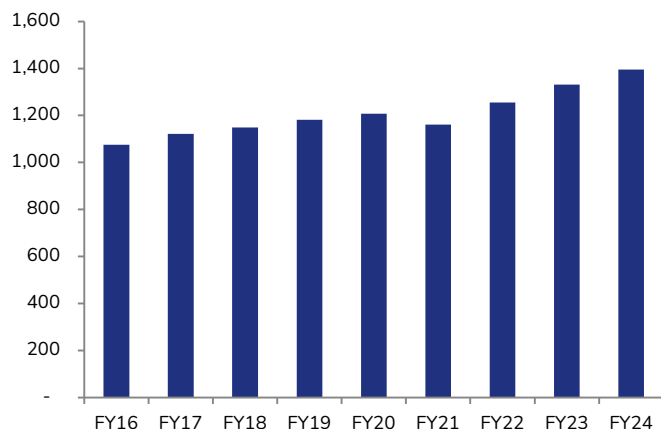
Source: MoP, UDAY; #ACS – Average Cost of Supply; ARR – Average Realizable Revenue
*estimated

Exhibit 44. Short-term market prices (INR/kWh)



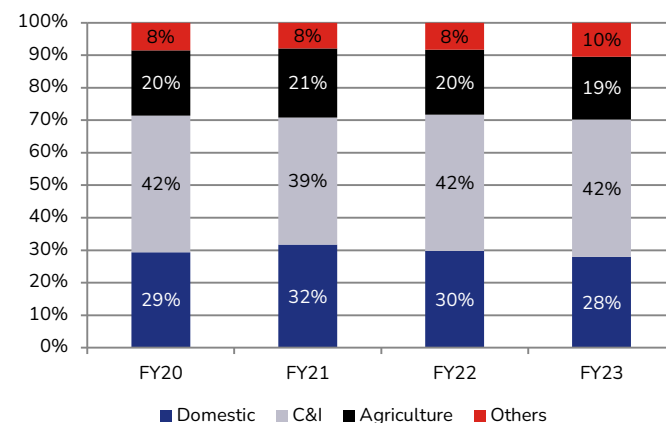
Source: IEX, JM Financial

Exhibit 45. Annual per capita consumption of electricity (kWh)



Source: MoP, CEA, JM Financial; *Provisional

Exhibit 46. Consumer-wise electricity consumption



Source: CMIE, Power Line, JM Financial

Projects under construction

Exhibit 47. Generation capacities under construction (MW)

Technology type	Total capacities under construction (MW)
Renewable*	148,118
Nuclear	6,600
Hydro	25,094
Thermal (coal)	37,620
Total	217,432

Source: CEA, DAE, JM Financial: *As on Sep'25

Status of Nuclear power projects

Exhibit 48. Status of nuclear power projects

State	Location	Project	Capacity (MW)	Expected Completion	Physical Progress/Status
Projects Under Construction					
Rajasthan	Rawatbhata	RAPP-8	1 X 700	2025	Unit is under advanced stages of commissioning
Tamilnadu	Kudankulam	KKNPP-3&4	2 X 1000	2025	Construction of various buildings is in advanced stage. Progressive manufacturing, delivery, erection & testing of various equipment & components are in progress. In Unit-3, Major milestone like construction of Inner Containment (IC) dome, Concreting of Outer Containment (OC) dome and Main Coolant Pipeline welding are completed. In Unit-4, construction of Inner Containment Dome is in progress. Erection of Nuclear Steam Supply system (NSSS) is completed.
		KKNPP-5&6	2 X 1000	2027	Tendering/Procurement/Manufacturing and progressive delivery of various equipment and components are in progress. Civil works are in progress.
	Kalpakkam	PFBR	1 X 500	NA	-
Haryana	Gorakhpur	GHAVP-1&2	2 X 700	2031	Construction of various civil structures like Fire Water Pump House, Safety Related Pump House, Fuel Oil Storage Area, D2O Upgrading Building, Switchyard Control Building, Fire and Industrial Safety House, Tunnels, Emergency Makeup Water Pond Area, Retaining wall, etc. are in progress. Construction of Fuel Oil Storage Area (FOSA) is completed. Purchase Orders for various major equipment/components are placed and manufacturing and supply of these are in progress. EPC Contracts for Turbine Island package, Main Plant Electrical Systems & Switchyard Package, Nuclear Island Package, etc. have been placed and further activities are in progress.
Projects Accorded Administrative Approval & Financial Sanction					
Karnataka	Kaiga	Kaiga-5&6	2 X 700	Progressively by 2031	Land is available at GHAVP-3&4 and Kaiga-5&6. Possession letter has been issued for all types of land at Chutka. Land acquisition is in process for Mahi Banswara and forest clearance is available. Environmental Clearance from MoEFCC is available for GHAVP-3&4, Kaiga-5&6 and Chutka-1&2. For Mahi Banswara, MoEFCC clearance is in process. AERB Siting consent is available for GHAVP-3&4 and Kaiga-5&6. Excavation is completed in main plant area and preparatory activities for First Pour of Concrete (FPC) are in progress in Kaiga5&6. Bulk Pro Pre-project activities at sites and bulk procurement of long manufacturing cycle equipment are underway. Excavation has commenced in Kaiga-5&6.
Haryana	Gorakhpur	GHAVP-3&4	2 X 700		
Madhya Pradesh	Chutka	Chutka-1&2	2 X 700		
Rajasthan	Mahi Banswara	Mahi Banswara-1&2	2 X 700		
		Mahi Banswara-3&4	2 X 700		

Source: DAE, JM Financial

Status of Hydropower projects

Exhibit 49. Status of hydroelectric projects (above 25MW) under implementation

Sl. No.	Name of the Project (Executing Agency)	State / UT	District	I.C. (No. X MW.)	Cap. Under Execution(MW)	River/Basin	Date of finish/ commissioning
Central Sector							
1	Subansiri Lower (NHPC)	Arunachal Pradesh/Assam	Lower Subansiri, Ar. Pradesh / Dhemaji, Assam	8x250	2000.00	Subansiri/ Brahmaputra	2025-27 # (May'26)
2	Dibang Multipurpose Project (NHPC)	Arunachal Pradesh	Lower Dibang Valley	12x240	2880.00	Dibang/Brahmaputra	2031-32 (Feb'32)
3	Teesta St. VI NHPC	Sikkim	South Sikkim	4x125	500.00	Teesta/Brahmaputra	2027-28 (Dec'27)
4	Rangit-IV (NHPC)	Sikkim	West Sikkim	3x40	120.00	Rangit/ Teesta/Brahmaputra	2025-26 (Dec'25)
5	Ratle (RHEPPL / NHPC)	UT of Jammu & Kashmir	Kishtwar	4x205 + 1x30	850.00	Chenab/Indus	2028-29 (Nov'28)
6	Pakal Dul (CVPPL)	UT of Jammu & Kashmir	Kishtwar	4x250	1000.00	Marusadar/ Chenab / Indus	2026-27 (Dec'26)
7	Kiru (CVPPL)	UT of Jammu & Kashmir	Kishtwar	4x156	624.00	Chenab/ Indus	2026-27 (Dec'26)
8	Kwar (CVPPPL)	UT of Jammu & Kashmir	Kishtwar	4x135	540.00	Chenab/Indus	2027-28 (Mar'28)
9	Luhri-I (SJVN)	Himachal Pradesh	Kullu/Shimla	2x80+2x25	210.00	Satluj/Indus	2029-30 (Feb'30)
10	Dhaulasidh (SJVN)	Himachal Pradesh	Hamirpur/ Kangra	2x33	66.00	Beas/Indus	2026-27 (Mar'27)
11	Sunni Dam (SJVN)	Himachal Pradesh	Shimla/Mandi	4x73+1x73+1x17	382.00	Satluj/Indus	2028-29 (Dec'29)
12	Vishnugad Pipalkoti (THDC)	Uttarakhand	Chamoli	4x111	444.00	Alaknanda/Ganga	2026-27 (Mar'27)
13	Tapovan Vishnugad (NTPC)	Uttarakhand	Chamoli	4x130	520.00	Dhauliganga / Alaknanda & /Ganga	2028-29 (Mar'29)
14	Rammam-III (NTPC)	West Bengal	Darjeeling	3x40	120.00	Rammam/ Rangit/Teesta Brahmaputra	2028-29 (Mar'29)
15	HEO	Arunachal Pradesh	West Siang	3x80	240.00	Yarjep River	2029-30 (Sept'29)
16	Tato-I	Arunachal Pradesh	Shi-Yomi	3x62	186.00	Siyom River	2029-30 (Sept'29)
Sub-Total: Central Sector					10682.00		
State Sector							
17	Polavaram (APGENCO/ Irrigation Dept., A.P.)	Andhra Pradesh	East & West Godavari	12x80	960.00	Godavari/EFR	2027-28 (Jan'28)
18	Lower Sileru Extension (APGENCO)	Andhra Pradesh	Alluri Sitharamaraju	2x115	230.00	Sileru/Godavari	2025-26 (Mar'26)
19	Shongtong Karcham (HPPCL)	Himachal Pradesh	Kinnaur	3x150	450.00	Satluj/ Indus	2028-29 (Sep'28)
20	Chanju-III (HPPCL)	Himachal Pradesh	Chamba	3x16	48.00	Chanju Nallah	2027-28 (Dec'27)
21	Mankulam (KSEB)	Kerala	Idukki	2x20	40.00	Melachery	2027-28 (Nov'27)
22	Lower Kopli (APGCL)	Assam	Dima Hasao & Karbi Anglong	2x55+2x2.5+1x5	120.00	Kopili/Brahmaputra	2025-27 (Apr'26)
23	Parnai (JKSPDC)	UT of Jammu & Kashmir	Poonch	3x12.5	37.50	Jhelum/ Indus	2027-28 (Dec'27)
24	Shahpurkandi (PSPCL/ Irrigation Deptt., Pb.)	Punjab	Pathankot	3x33+3x33+1x8	206.00	Ravi/ Indus	2027-28 (May'27)
25	Lakhwar Multipurpose Project (UJVNL)	Uttarakhand	Dehradun & Tehri Garhwal	3x100	300.00	Yamuna	2031-32 (Dec'31)
Sub-Total: State Sector					2391.50		
26	Tidong-I (Statkraft IPL)	Himachal Pradesh	Kinnaur	3x50	150.00	Tidong/Satluj/Indus	2026-27 (Jul'26)
Sub-Total: Private Sector					150.00		
Total:					13223.50		

Source: CEA as on Oct'25, JM Financial

Note: Presently 26 no. of hydroelectric project (above 25 MW) totalling to 13223.50 MW are under construction.

Exhibit 50. Status of Pumped storage Projects (above 25MW) – under implementation

Sl. No.	Name of the Project (Executing Agency)	State / UT	District	I.C. (No. X MW.)	Cap. Under Execution(MW)	River/Basin	Date of finish/ commissioning
Central Sector							
1	Tehri PSS (THDC)	Uttarakhand	Tehri Garhwal	2x250	500.00	Bhilangna/Bhagirathi/ Ganga	2025-26 (Dec'25)
Sub-Total: Central Sector					500.00		
State Sector							
2	Upper Sileru PSP (APGENCO)	Andhra Pradesh	Alluri Sitharamaraju	9x150	1350.00	Sileru/Godavari	2028-29 (Feb'29)
3	Sharavathy Pumped Storage Project	Karnataka	Upper dam (Shimoga) & Lower dam (Uttara Kannada)	8x250	2000.00	Sharavathy/WFR	2029-30 (Dec'29)
4	Kundah Pumped Storage Phase-I,II&III)	Tamil Nadu	Nilgiris	4x125	500.00	Kundah/Bhavani/ Cauvery/EFR	2025-27 (Apr'26)
Sub-Total: State Sector					3850.00		
Private Sector							
6	MP30 Gandhi Sagar Pumped Storage Project (Greenko MP01 IREP Private Limited)	Madhya Pradesh	Neemuch	7x240 + 2x120	1920.00	Off stream	2026-27 (Dec'26)
7	Chitravathi PSP (Adani Renewable Energy Forty-Two Limited)	Andhra Pradesh	Satya Sai	2x250	500.00	Chitravathi River	2026-27 (Oct'26)
8	Bhivpuri PSP (Tata Power Company Limited)	Maharashtra	Raigad	4x200 + 2x100	1000.00	Indrayani River	2028-29 (Oct'28)
9	Gandikota PSP (M/s Adani Renewable Energy Fifty-One Limited)	Andhra Pradesh	Kadapa	4x250	1000.00	Penna River (Off Stream)	2028-29 (Mar'29)
10	Saundatti PSP (M/s Greenko KA01 IREP Private Limited)	Karnataka	Belagavi	320x4+160x2	1600.00	Off Stream	2027-28 (Dec'27)
11	Bhawali PSP (M/s JSW Energy PSP Two Limited)	Maharashtra	Nashik & Thane	5x250+2x125	1500.00	Dharna, Ulhas (Off Stream)	2028-29 (Dec'28)
Sub-Total: Private Sector					7520.00		
Total:					11870.00		

Source: CEA as on Oct'25, JM Financial

Status of thermal (coal) capacities

Currently, there are 25 thermal projects under construction with a capacity of 35,080MW.

Exhibit 51. Thermal (coal) capacities under construction

Sr. No	Project Name	State	Implementing Agency Boiler Turbine	LOA Date	Unit No	Cap. (MW)	Original Trial Run	Anticipated Trial Run (as per CEA)	Physical Progress %
	Central Sector								
1	Buxar TPP	BR	SJVN L&T L&T	Jun'19	U-1	660	May'23	Oct'25	99%
					U-2	660	Sep'23	Dec'25	96%
2	Patratu STPP	JH	PVUNL BHEL BHEL	Mar'18	U-1	800	Jan'22	Oct'25	82%
					U-2	800	Jul'22	Mar'26	76%
					U-3	800	Jan'23	Jul'26	71%
3	Talcher TPP, St-III	OR	NTPC BHEL BHEL	Sep'22	U-1	660	Nov'26	Sep'27	39%
					U-2	660	May'27	Dec'27	21%
4	Lara STPP St-II	CH	NTPC BHEL BHEL	Aug'23	U-3	800	Dec'27	Dec'27	20%
					U-4	800	Jun'28	Jun'28	11%
5	Ghatampur TPP	UP	L&T MHPS GE Power NUPPL	Aug'16	U-2	660	Nov'20	Nov'25	98%
					U-3	660	May'21	Mar'26	91%
6	NLC TALABIRA TPP	OR	NLC BHEL BHEL	Jan'24	U-1	800	Jan'29	Mar'29	0%
					U-2	800	Jun'29	Sep'29	0%
					U-3	800	Dec'29	Mar'30	0%
7	Sipat STPP, St-III	CH	NTPC BHEL BHEL	Sep'24	U-6	800	Sep'29	Sep'29	17%
8	Gadarwara STPP St-II	MP	NTPC L&T L&T	Mar'25	U-3	800	Sep'29	Sep'29	0%
					U-4	800	Mar'30	Mar'30	0%
9	Singrauli STPP, St-III	UP	NTPC BHEL BHEL	Mar'24	U-8	800	May'29	May'29	18%
					U-9	800	Feb'30	Feb'30	17%
10	Koderma TPS, Ph-II	JH	DVC BHEL BHEL	Nov'24	U-1	800	Aug'28	Aug'28	0%
					U-2	800	Dec'28	Dec'28	0%
11	Nabinagar STPP, St-II	BH	NTPC L&T L&T	Mar'25	U-4	800	Jul'29	Jul'29	0%
					U-5	800	Jan'30	Jan'30	0%
					U-6	800	Jul'30	Jul'30	0%
12	Raghunathpur TPS, Ph-II	WB	DVC BHEL BHEL	Feb'25	U-1	660	Dec'28	Dec'28	0%
					U-2	660	Apr'29	Apr'29	0%
	State Sector								
1	Ennore SCTPP	TN	TANGEDCO BHEL BHEL	Sep'14	U-1	660	Jan'18	Sep'26	79%
					U-2	660	Mar'18	Nov'26	78%
2	North Chennai TPP, St-III	TN	TANGEDCO BHEL BHEL	Jan'16	U-1	800	Oct'19	Oct'25	96%

Source: CEA as on Jun'25, JM Financial

Exhibit 51. Thermal (coal) capacities under construction (Contd...)

Sr. No	Project Name	State	Implementing Agency Boiler Turbine	LOA Date	Unit No	Cap. (MW)	Original Trial Run	Anticipated Trial Run (as per CEA)	Physical Progress %
3	Udangudi STPP, St-I	TN	TANGEDCO BHEL BHEL	Dec'17	U-1	660	Jan'21	Nov'25	96%
					U-2	660	Mar'21	Mar'26	95%
4	Sagardighi TPP St-III	WB	WBPDC BHEL BHEL	Dec'18	U-5	660	Jan'24	Nov'25	95%
5	Yadadri TPS	TEL	TSGENCO BHEL BHEL	Oct'17	U-3	800	Apr'23	Dec'25	95%
					U-4	800	May'23	Oct'25	94%
					U-5	800	Jun'23	Mar'26	93%
6	DCRTPP Extn	HR	HPCGL BHEL BHEL	Feb'24	U-3	800	Sep'29	Sep'29	0%
7	Singareni TPP,PhII	TEL	SCCL BHEL BHEL	Feb'25	U-3	800	Dec'28	Dec'28	0%
8	Ukai TPP	GUJ	GSECL BHEL BHEL	Mar'25	U-7	800	Sep'29	Sep'29	0%
9	Koradi TPS, St V	MH	MSPGCL BHEL BHEL	Feb'25	U-11	660	May'29	May'29	0%
					U-12	660	Nov'29	Nov'29	0%
10	Korba (West) SCTPP	CH	CSPGCL BHEL BHEL	Mar'25	U-1	660	Jul'29	Jul'29	0%
					U-2	660	Jan'30	Jan'30	0%
	Private Sector								
1	Mahan STPP, Ph-II	MP	Mahan Energen Ltd BHEL (Supply) BHEL (Supply)	Aug'23	U-1	800	Dec'26	Dec'26	60%
					U-2	800	May'27	May'27	54%
2	Raipur Ext TPP, Ph-II	CH	Adani Power BHEL (Supply) BHEL (Supply)	Jun'24	U-3	800	Jan'28	Jan'28	0%
					U-4	800	Jul'28	Jul'28	0%
3	Raigarh USCTPP, St-II	CH	Adani Power BHEL (Supply) BHEL (Supply)	Oct'24	U-2	800	Jan'28	Jan'28	0%
					U-3	800	Jul'28	Jul'28	0%
4	Mahan STPP, PhIII	MP	Mahan Energen Ltd BHEL (Supply) BHEL (Supply)	Nov'24	U-5	800	Aug'29	Aug'29	0%
					U-6	800	Feb'30	Feb'30	0%
						37,620			

Source: CEA as on Jul'25, JM Financial

Status of stressed power projects

- A total of 25 power projects having capacity of 21,905MW remain stressed as of Oct'25.

Exhibit 52. Status of stressed power projects

Sr No	State	Project Name / Implementation Agency/ EPC or BTG	LOA/ Date/ ordered date	Unit No	Capacity MW	Original Commissioning Schedule	Present Status/Remarks
CENTRAL SECTOR							
1	Rajasthan	Barsingar TPP ext/ NLC/ Reliance Infra/ Chinese	Nov'16	U-1	250	May'20	Project was held up due to withdrawal of PPA by DISCOM (Rajasthan), due to land issue in linked mines and consequently higher tariff. On 04-08-2022, a meeting was held (Additional Secretary-Coal, Gol along with NLCIL Directors met Chief Secretary-GoR and Principal Secretary-Energy) and it was jointly decided not to pursue with the Barsingar TPS Extension project (1X250 MW) along with Hadla Mine.
2	Rajasthan	Bithnok TPP/ NLC/ Reliance Infra/ Chinese	Nov'16	U-1	250	May'20	Project was held up due to withdrawal of PPA by DISCOM (Rajasthan) due to increased project cost and time over run. On 04-08-2022 a meeting was held (Additional Secretary-Coal, Gol along with NLCIL Directors met Chief Secretary-GoR and Principal Secretary-Energy) to revive the Bithnok TPS. Based on the decision, a consultant was appointed to prepare feasibility. Further, as per the discussions held with Rajasthan government officials, it has been agreed that NLC and GoR will jointly work to revive the Bithnok Thermal Power Project along with Bithnok Mines. The consultant has prepared the feasibility report for revival of the project and the same is under "scrutiny and approval"
PRIVATE SECTOR							
1	Andhra Pradesh	Bhavanapadu TPP Ph-I / East Coast Energy Ltd. / BTG DEC china	Sep'09	U-1	660	Oct'13	Liquidation Order date 22/04/2019. Liquidator has partially sold the assets (P&M) of the company on a standalone basis through e-auction. Further, the liquidator has also sold the Land including buildings at the Plant Site on 9th Feb 2023.
			Sep'09	U-2	660	Mar'14	
2	Bihar	Siriya TPP (Jas Infra. TPP) / JICPL BTG-DEC China	Mar'11	U-1	660	Aug'14	Liquidation Order date 17.07.2020; The Enforcement directorate has attached the assets of the corporate debtor and as a result of which the auction of the assets is kept on hold.
			Mar'11	U-2	660	Dec'14	
			Mar'11	U-3	660	Apr'15	
			Mar'11	U-4	660	Aug'15	
3	Chhattisgarh	Akaltara TPP (Naiyara) / KSK Mahandi Power Co. Ltd./ Boiler- SEPCO CHINA (Shanghai china)/ TG- SEPCO (Dongfong China)	Apr'09	U-4	600	Apr'13	CIRP commenced on 3rd October 2019 & currently under NCLT. Resolution Plans were opened on 05-06-2024. M/s JSW Energy has been declared as successful Resolution applicant. Units are likely to be revived by CY2030.
			Apr'09	U-5	600	Aug'13	
			Apr'09	U-6	600	Dec'13	
4	Chhattisgarh	Binjkote TPP/ SKS Power Generation (Chhattisgarh) Ltd. Boiler-Cethar Vessels /Turbine-Harbin China	Mar'11	U-3	300	Mar'14	Sarda Energy & Minerals acquired this project through NCLT on 13-08-2024. The Unit#3&4 are likely to be revived by CY 2031.
			Mar'11	U-4	300	Jun'14	
5	Chhattisgarh	Lanco Amarkantak TPP- II/ LAP Pvt. Ltd. BTG-DEC china	Nov'09	U-3	660	Jan'12	Adani Power Limited has bought this plant under NCLT route as per approved the resolution plan on 21-08-2024. The project is likely to be commissioned during 2025-26. (U#3: Sep-2025, U#4: Feb-2026)
			Nov'09	U-4	660	Mar'12	
6	Chhattisgarh	Singhitarai TPP / Athena Chhattisgarh Power Ltd. BTG –DEC china	Dec'09	U-2	600	Feb'15	Vedanta Ltd. has bought the power plant under liquidation. The project is likely to be commissioned during 2025-26 and 2026-27 (U#1: 19-07-2025, U#2: Jul'26)
7	Chhattisgarh	Salora TPP / Vandana Vidyut/ Boiler- Cether Vessles / TG Harbin China	Sep'09	U-2	135	Sep'11	The liquidator successfully sold the assets of corporate debtor as per provision of IBC, 2016.
8	Chhattisgarh	Deveri (Visa) TPP / Visa Power Ltd. BTG-BHEL	Jun'10	U-1	600	Aug'13	The liquidator has started the process of liquidating the company by selling the assets of the Corporate Debtor on piecemeal basis. BHEL claims certain unpaid lien on the assets available at the site of the Corporate Debtor and in this regard matter is still pending before the Supreme Court of India.

Source: CEA, Aug'25, JM Financial

Exhibit 52. Status of stressed power projects (Contd...)

Sr No	State	Project Name / Implementation Agency/ EPC or BTG	LOA/ Date/ ordered date	Unit No	Capacity MW	Original Commissioning Schedule	Present Status/Remarks
9	Jharkhand	Matrishri Usha TPP Ph-I / CorporatePower Ltd. EPC- BHEL	Dec'09	U-1	270	Apr'12	The liquidator is making endeavour to sell the company as per provision of IBC, 2016 and the regulation laid there in.
			Dec'09	U-2	270	May'12	
10	Jharkhand	Matrishri Usha TPP Ph-II / CorporatePower Ltd. EPC- BHEL	Mar'11	U-3	270	Oct'12	
			Mar'11	U-4	270	Jan'13	
11	Jharkhand	Tori TPP Ph-I / Essar Power Ltd. BTG- Harbin China	Aug'08	U-1	600	Jul'12	The Liquidator has initiated the e-auction process for realizing the assets of the Corporate Debtor and till date has sold around 15,000 MT of Fabricated Steel Structure from the power plant
			Aug'08	U-2	600	Sep'12	
12	Jharkhand	Tori TPP Ph-II / Essar Power Ltd./ BTG- Harbin China	Feb'10	U-3	600	Dec'15	
13	Maharashtra	Amravati TPP Ph-II / Ratan India Power Pvt. Ltd. BTG- BHEL	Oct-10	U-1	270	Jul-14	Company has decided to drop Phase II due to following reasons: a) no new Bids for Long Term PPAs have been coming up in the Market since the last 5 years. b) the revised emission norms under the Environment (Protection) Amendment Rules, 2015 revising, inter alia, emission norms for thermal power plants., drastic changes in the design and equipment of Phase II was required to be carried out.
			Oct'10	U-2	270	Sep'14	
			Oct'10	U-3	270	Nov'14	
			Oct'10	U-4	270	Jan'15	
			Oct'10	U-5	270	Mar'15	
14	Maharashtra	Nasik TPP Ph-II / Ratan India Nasik Power Pvt. Ltd. BTG- BHEL	Nov'09	U-1	270	Apr'13	
			Nov'09	U-2	270	Jun'13	
			Nov'09	U-3	270	Aug'13	
			Nov'09	U-4	270	Oct'13	
			Nov'09	U-5	270	Dec'13	
15	Maharashtra	Lanco Vidarbha TPP / LVP Pvt. Ltd. EPC-LANCO/ Boiler- Dongfong China / Turbine- Harbin china	Nov'09	U-1	660	Jul'14	Majority of Plant material has been auctioned and removed from site. 706 Acres of Land and approx. 4000 MT of material is yet to be auctioned as they were under Litigation.
			Nov'09	U-2	660	Nov'14	
16	Maharashtra	Bijora Ghanmukh TPP / Jinbhuvish Power Generation Pvt. Ltd.	Sep'11	U-1	300	Dec'16	The coal linkage matter for this project is sub judice and once it is resolved, developer will be looking for funding options and further process.
			Sep'11	U-2	300	Mar'17	
17	Madhya Pradesh	Gorgi TPP / D.B. Power (MP) Ltd. BTG- BHEL	Mar'11	U-1	660	Jun'13	The company has requested a COD extension with GoMP, and a revival will be planned accordingly on the final permission.
18	Odisha	KVK Nilanchal TPP/ KVK Nilanchal/ BTG-Harbin China	Nov'09	U-1	350	Dec'11	Project sold to successful bidder M/s Padmaprabhu Commodity Trading Pvt Ltd in the E-auction held on 26th August 2022
			Nov'09	U-2	350	Feb'12	
			Nov'09	U-3	350	Feb'12	
19	Odisha	Lanco Babandh TPP / LBP Ltd./ BTG- DEC Chinese	Nov'09	U-1	660	Apr'13	The Liquidator has partially sold the assets of the company on a standalone basis through e-auction dated 27.08.2021
			Nov'09	U-2	660	Aug'13	
20	Odisha	Malibrahmani TPP / Monnet Power Co.Ltd. / BTG-BHEL	Jun'10	U-1	525	Dec'12	Jindal Steel & Power has acquired the plant under NCLT route. This plant will be revived in FY 2025-26 (U-1 as captive unit). U-2 of the Plant is likely to be commissioned in Oct'25.
			Jun'10	U-2	525	Feb'13	
21	Tamil Nadu	Tuticorin TPP (Ind- Barath) / IBPIL / BTG- Shangdong China	May'10	U-1	660	May'12	Successful bidder has been identified. However, the Liquidation process has been stayed by the Hon'ble NCLAT.
22	West Bengal	Hiranmaye Energy Ltd (India Power corporation (Haldia) TPP / Haldia Energy Ltd/ EPC- MEIL / BTG- BHEL.	Sep'10	U-3	150	May'16	Project is currently under hold.
TOTAL [No. of Projects:24, No. of Units:49]					21,905		

Source: CEA, Oct'25, JM Financial

APPENDIX I

JM Financial Institutional Securities Limited

Corporate Identity Number: U67100MH2017PLC296081

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

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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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