

CEEW-CEF Market Handbook Q1 2024-25

7 August 2024



Image: iStock



CEEW-CEF Market Handbook

India is undergoing an energy transition from fossil-based to clean energy. Evidence-based decision-making can accelerate the process.

CEEW Centre For Energy Finance's Market












Handbook aims to help key investors, executives and policymakers with evidence-based decision-making by:

- Identifying and analysing trends critical to India's energy transition
- Presenting data-backed evidence based on the most relevant indicators
- Connecting the dots and presenting a short-term market outlook

The handbook attempts to comment and answer on some critical questions such as:

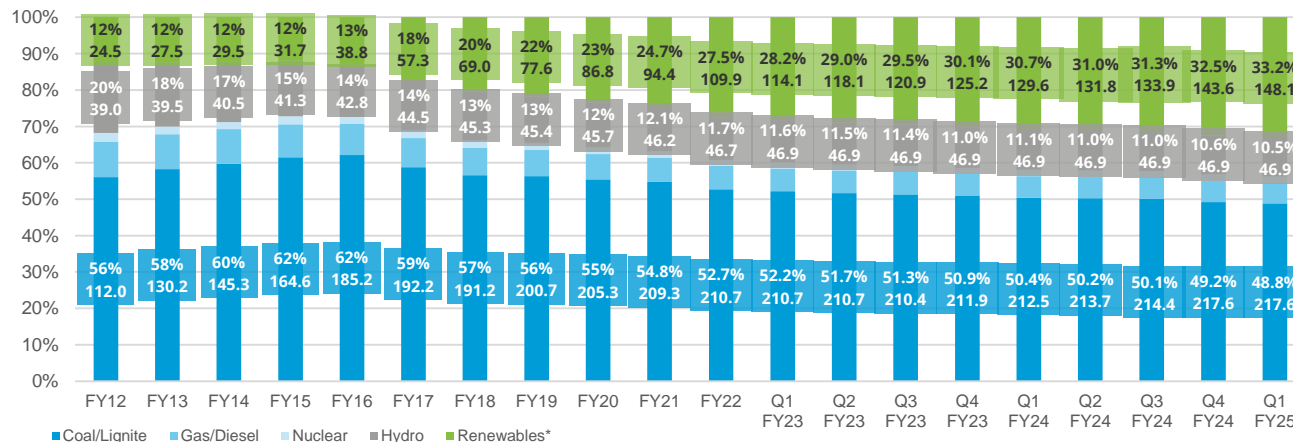
1. What is India's generation capacity and energy mix?
2. What are the key trends in renewable energy (RE) tariffs?
3. What is the current situation of the discom payment delay situation?
4. How have the power market reforms progressed?
5. What are key trends in the electric vehicles (EV) and energy storage markets?

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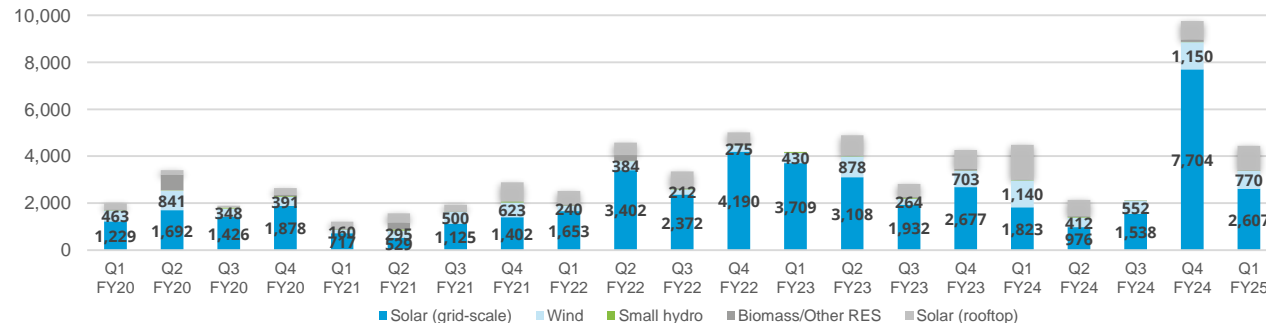


Installed capacity mix (GW)



Source: Central Electricity Authority (CEA). * Includes solar rooftop capacity (12923.03 MW as of June 2024).

RE capacity addition (MW)



Source: Ministry of New and Renewable Energy (MNRE). #RE includes solar, wind, biomass, small hydel and large hydro capacity.

Takeaways & Outlook

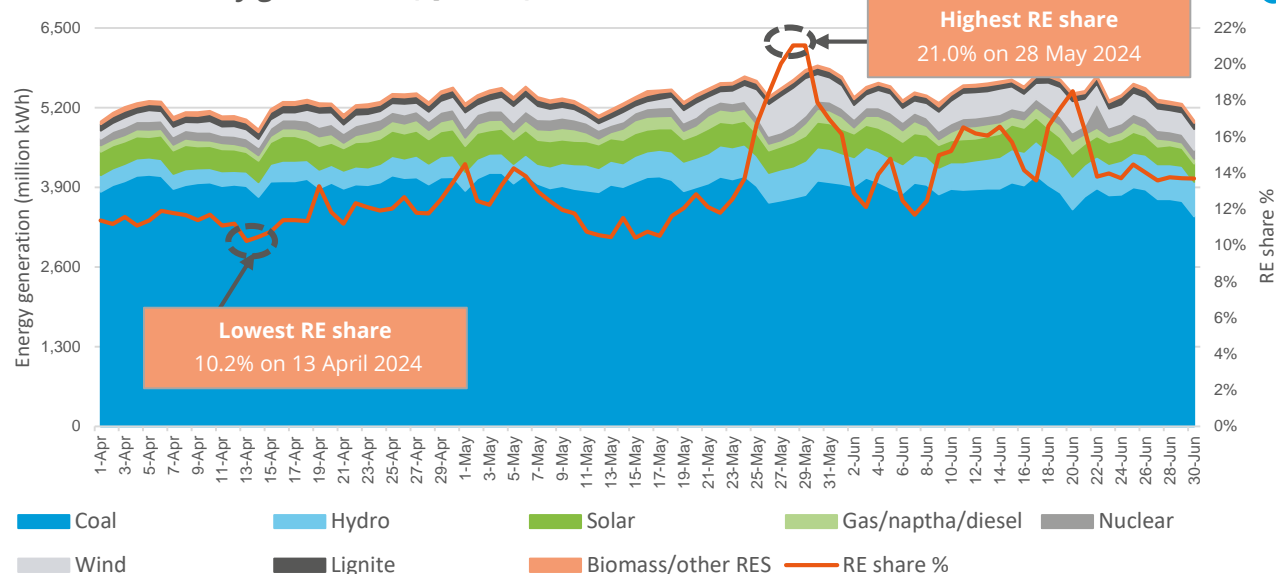
In Q1 FY25, a net generation capacity of 4.2 GW was added (vs 5.8 GW in Q1 FY24). The total net capacity addition comprised renewable energy (RE) (4.4 GW) and the retirement of gas-based capacity (200 MW). No new thermal, nuclear or hydropower capacity was added in this quarter.

In RE, solar (grid-scale and rooftop) continued to dominate capacity addition, accounting for 3,661 MW (82.4%) (vs 3,316 MW in Q1 FY24) of total RE addition. Wind capacity addition stood at 770 MW (17.3%) in Q1 FY25 (vs 1,140 MW in Q1 FY24). Biopower (8 MW) and small hydro (2 MW) contributed 0.2% and 0.05% respectively.

In Q1 FY25, the total installed RE# capacity reached 195 GW, including 85.5 GW of solar, 46.9 GW of large hydro, 46.7 GW of wind and 10.9 GW of biopower capacity.

As of 30 April 2024, 89.1 GW of RE capacity is under construction, comprising 56.3 GW of solar, 17.5 GW of wind and 15 GW of hybrid capacity, among others.

Source-wise daily generation (Q1 FY25)



RE share snapshot

Q1 FY23			Q1 FY24			Q1 FY25	
	RE share %	Day		RE share %	Day		RE share %
Highest	21.3%	21 May 2022		17.5%	26 May 2023		21.0%
Lowest	8.9%	22 April 2022		8.8%	29 April 2023		10.2%
Average (Daily)	12.9%	NA		12.4%	NA		12.3%

Source: POSOCO. Note: RE technologies include solar, wind, biomass, waste-to-energy, and small hydro and do not include rooftop solar and large hydro (>25 MW) generation.

Takeaways & Outlook

The total power generation increased by **11.6% in Q1 FY25** (490 billion kWh) compared to Q1 FY24 (440 billion kWh) and by 12.6% in comparison to Q4 FY24 (435 billion kWh) owing to prolonged extreme heat-wave days in various parts of the country in Q1 FY25.

- **April:** Up by 10.4%
- **May:** Up by 15.4%
- **June:** Up by 9.0%
- **Total Q1 FY25:** Up by 11.6%

In Q1 FY25, **RE generation increased by 11.3% versus the same quarter in the previous fiscal year (Q1 FY24)**. Coal/lignite-based generation was up by 10.9%; however, hydro increased slightly by 0.8% for the same period.

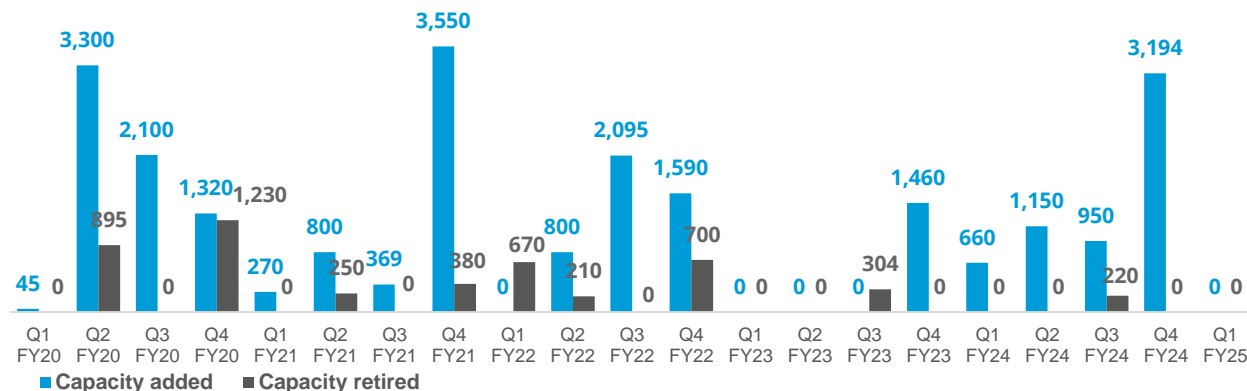
From an average daily generation perspective, **the RE, hydro and coal/lignite share decreased slightly, in Q1 FY25 compared to Q1 FY24.**

- **RE:** Share slightly down from 12.4% to 12.3%
- **Hydro:** Share down from 8.4% to 7.6%
- **RE + Hydro:** Share slightly down from 20.8% to 19.9%
- **Coal/lignite:** Share slightly down from 75.0% to 74.6%

Coal phase-out: no new coal capacity added or retired; share of conventional generation in the PFC/REC loan book reduced to 36%

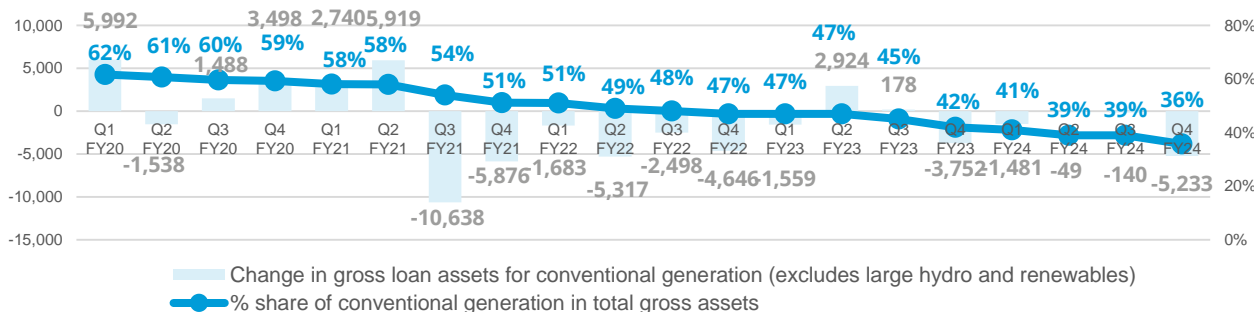
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Coal capacity added versus retired (MW)



Source: CEA.

Coal financing by Power Finance Corporation (PFC)/ Rural Electrification Corporation (REC) (INR crore)



Source: PFC investor presentations; figures are derived from the same. Note: Sector-wise PFC loan asset data break-up is unavailable for Q1 FY25.

Takeaways & Outlook

In Q1 FY25, no new coal capacity was added or retired. This stands in stark contrast to the previous quarters, which witnessed a net addition of 5.7 GW of coal capacity in FY24.

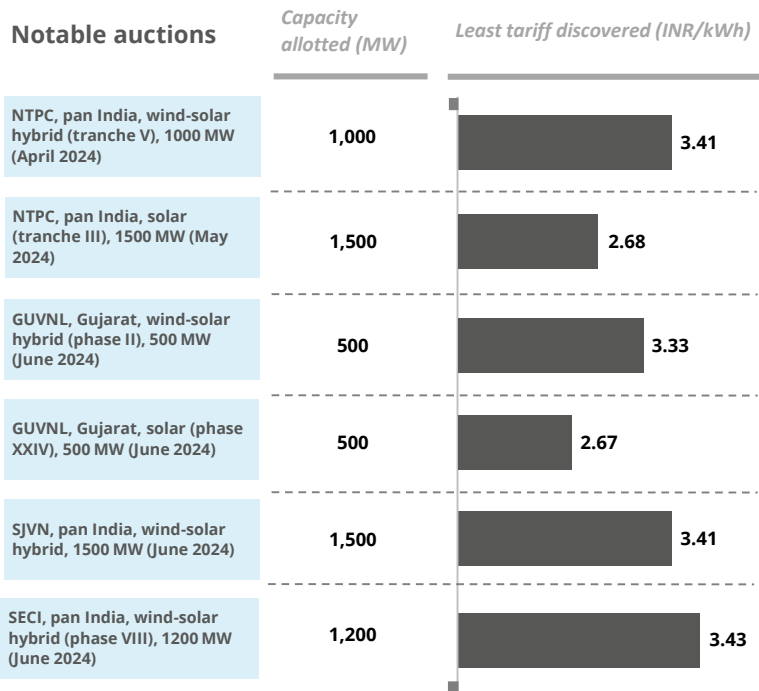
PFC/REC, India's largest power financier, continued to show a downward trend in the share of conventional generation, declining to 36% in Q4 FY24 from 42% in Q4 FY23.

PFC/REC continued its diversification trend by financing transmission and distribution (T&D) and RE generation projects (including large hydro). This accounts for around 48% (INR 2,30,146 crore) and 11.4% (INR 60,208 crore) of its total loan book as of Q4 FY24 vs 42% (INR 1,89,803 crore) and 9.9% (INR 49,707 crore) in Q4 FY23, respectively.

In May 2024, REC Limited received a no objection certificate from Reserve Bank of India to set up a wholly owned subsidiary in International Financial Services Centre (IFSC), GIFT City in Gandhinagar, Gujarat.

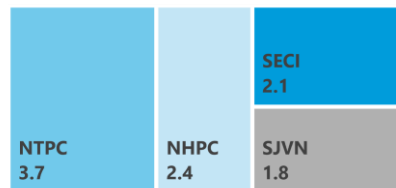
6.2^{GW}

RE auctions concluded in Q1 FY25

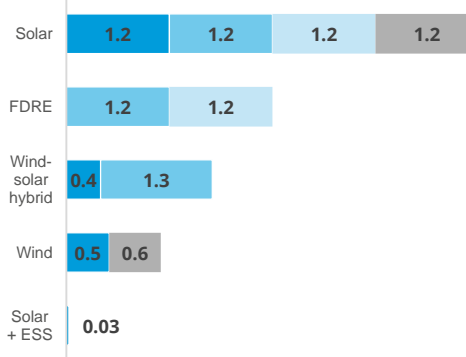
10.0^{GW#}

RE tenders announced in Q1 FY25

Capacity announced by REIAs in GW



Technology-wise REIA tenders announced in GW



Takeaways & Outlook

Auctioned RE capacity stood at 6.2 GW in Q1 FY25, of which vanilla solar stood at 2 GW (32%). The majority of the auctioned capacity, 4.2 GW (68%), was under innovative power procurement formats. Auctioned capacity in Q1 FY25 was dominated by central bidding agencies, such as SJVN's 1500 MW wind-solar hybrid and SECI's 1200 MW wind-solar hybrid (phase VIII) auctions.

The auctioned capacity in Q1 FY25 was modest compared to previous quarters.

- Q1 FY25: 6.2 GW
- Q4 FY24: 18.66 GW
- Q3 FY24: 8.84 GW
- Q2 FY24: 5.41 GW

In Q1 FY25, the designated renewable energy implementing agencies (REIAs) announced 10 GW capacity of RE tenders, of which vanilla solar and wind stood at 48% and 11% respectively. Innovative procurement formats accounted for 41%. With this, REIAs met ~20% of the annual bidding trajectory target in the first quarter of the financial year.

Source: SECI and state renewable agencies.

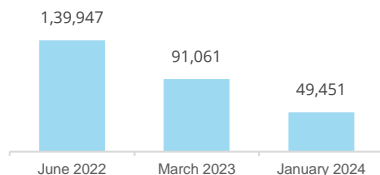
SECI = Solar Energy Corporation of India; SJVN = Satluj Jal Vidyut Nigam; NHPC = National Hydroelectric Power Corporation; GUVNL = Gujarat Urja Vikas Nigam Limited. #Excluding standalone storage tenders.

Note: Bids issued = tenders announced.

Discom payables: legacy dues of discoms to generating companies reduced to INR 49,451 crore from INR 91,061 crore

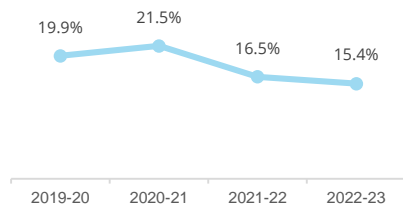
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Legacy dues by discoms to power producers (INR crore)



Source: PRAPTI portal (based on voluntary disclosures from power producers; PIB Press Release.

Overall AT&C losses (%)



Source: Integrated rating and ranking of power distribution utilities.

Smart, DT & Feeder meters installed vs sanctioned (as of Q1 FY25)

5.6%

Smart consumer meters
of 22,24,50,825 sanctioned

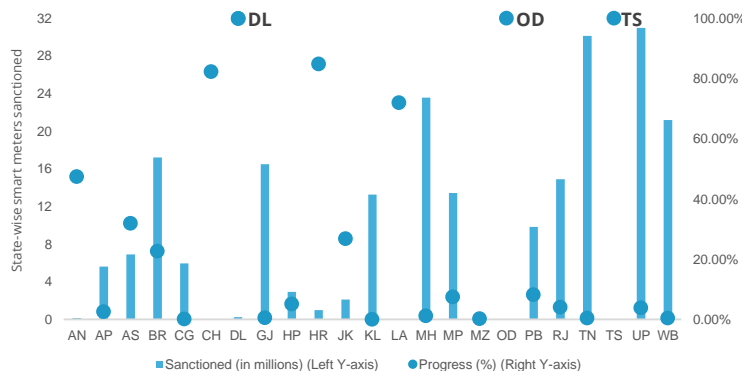
1.2%

DT meters
of 52,65,011 sanctioned

9.2%

Feeder meters
of 1,83,316 sanctioned

State-wise smart meters installed vs sanctioned (as of Q1 FY25)



Source: CEEW-CEF compilation based on National Smart Grid Mission, MoP

Takeaways & Outlook

As on 31 January 2024, **legacy dues# of discoms to generating companies reduced to INR 49,451 crore** from INR 91,061 crore as on March 28, 2023. All current dues of generating companies were up-to-date as on 31 January, 2024.

As per the performance of the power utilities report 2022-23, **pan-India AT&C losses stood at 15.4%** vs 16.5% in 2021-22. 12 utilities (out of 53) received A+ grading in FY23.

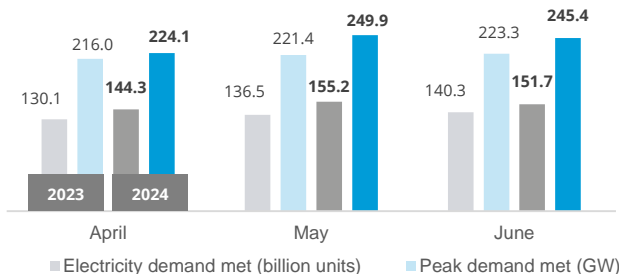
Under the **RDSS scheme**, 12.41 million prepaid smart consumer meters (5.6% of target), 0.07 million smart DT meters and 0.02 million smart feeder meters have been installed across 28 states/UTs.

Among the states/UTs, Delhi, Odisha and Telangana have achieved 100% of their sanctioned smart meters installation. Arunachal Pradesh, Goa, Jharkhand, Manipur, Meghalaya, Nagaland, Puducherry, Sikkim, Tripura, and Uttarakhand are yet to record progress in installing smart meters.

Reforms-based and results-linked, revamped distribution sector scheme (RDSS), approved in June 2021, aims to **reduce AT&C losses at pan-India levels to 12-15% by 2024-25, reduce ACS-ARR gap to zero by 2024-25, and develop institutional capabilities for modern discoms.**

Note: #Legacy dues are already past their due date and remain partially or completely unpaid. Current dues are partially or completely unpaid but are still within their respective due dates.

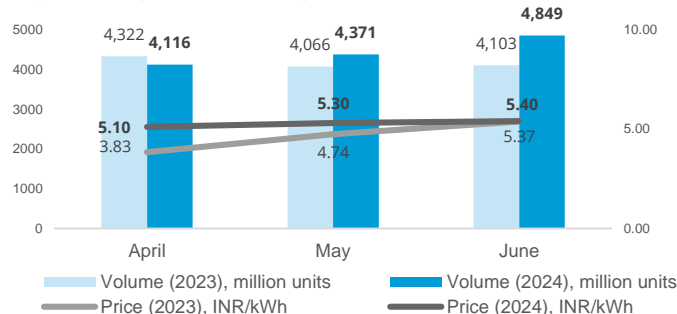
Power supply position (peak and electricity demand)



Source: CEA.

Peak demand met in Q1 FY25 increased compared to Q1 FY24 through government interventions that ensured supply-side liquidity. In terms of electricity demand met, there was an uptick of 10.9% vs that of Q1 FY24.

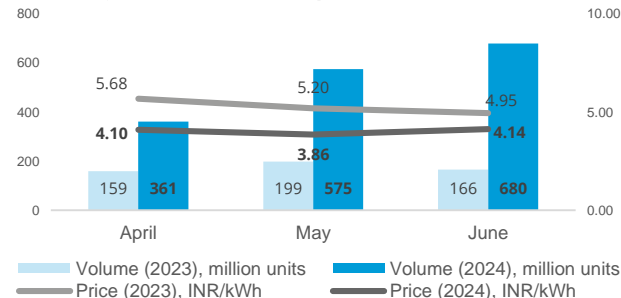
Day-ahead spot market snapshot (IEX)



Source: IEX.

Proactive measures like sale of surplus un-requisitioned power on the exchanges and increased fuel supply led to an increased sell liquidity on the exchanges, keeping the prices comparable to the previous FY.

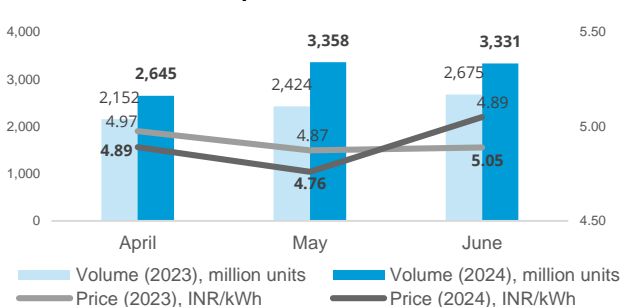
Green day ahead market snapshot (IEX)



Source: Indian Energy Exchange (IEX). *Day-ahead contingency.

Volumes traded in the green day-ahead market (GDAM) were significantly higher in Q1 FY25 (vs Q1 FY24), and MCP has declined compared to Q1 FY24 levels. In this quarter, GDAM achieved trade volumes of 1,616 MU, recording a growth of 208.4% (vs Q1 FY24).

Real-time market snapshot (IEX)



Source: IEX.

The unprecedented surge in electricity demand due to hot weather conditions led to an increase in volumes in this quarter. In Q1 FY25, the RTM segment recorded a growth of 26.8 per cent (vs Q1 FY24).

Takeaways & Outlook

Q1 FY25 recorded the all-time high peak power demand in the country on 30 May 2024, standing at 249.9 GW. The average monthly electricity demand (met) in Q1 FY25 saw an uptick of 10.9% from Q1 FY24, standing at 150.4 billion units.

In April 2024, to meet the rising electricity demand, the Ministry of Power directed that all imported coal-based power plants continue to operate until October 2024 and all gas-based plants until June 2024.

In Q1 FY25, 2.1 million solar RECs were traded at an average price of INR 0.1/kWh on IEX. In contrast, in Q1 FY24, 0.8 million solar RECs were traded at an average price of INR 0.8/kWh. There was no trading of non-solar RECs in both quarters. In June 2024, the lowest ever trading price of INR 140 per REC (INR 0.14/kWh) was discovered on the exchange.

The trading of PAT Cycle – III commenced on 9 April, 2024. In Q1 FY25, 63,273 energy saving certificates (ESCs) were traded at the average floor price of INR 2,165 per ESCert.

Policy and regulatory developments: MoP directs gas-based generating stations to operate during summer months, various states notified green open access rules in this quarter

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MoP orders gas-based generating stations to operate during summer months

- Under Section 11 of Electricity Act 2003, Ministry of Power directed gas-based generating stations to operate till 30 June, 2024.
- These measures are to ensure resource adequacy amid escalating peak power demands.

MNRE exempts ALMM and RLMM requirements for RE plants in SEZs

- MNRE has issued a directive exempting solar and wind energy plants which are dedicated for green hydrogen production from ALMM and RLMM requirements.
- These plants are required to be located in special economic zones (SEZs) or set up as an export oriented units (EOUs) for green hydrogen and its derivatives.
- These exemptions are applicable to RE plants commissioned by 31 December, 2030.

MoP amends SIGHT guidelines for Component-II under Mode 2A

- In June 2024, MNRE's Hydrogen division amended SIGHT Component II's guidelines under Mode 2A to increase the capacity available for bidding to 7,50,000 MT per annum for green ammonia.
- An additional capacity of 2,00,000 MT per annum was made available under this scheme.

MNRE launches portal for domestic content verification in solar cells and modules

- Solar PV manufacturing associations in consultation with MNRE have developed a portal to ensure the traceability of domestically manufactured solar PV cells and modules and help in verification of domestic content requirement (DCR) in solar PV modules deployed in the country.
- The portal is hosted on National Institute of Solar Energy's website.

Cabinet approves INR 7,453 crore of VGF for offshore wind energy

- In June 2024, the Union Cabinet approved viability gap funding scheme for 1 GW offshore wind energy projects (500 MW each off the coast of Gujarat and Tamil Nadu).
- The outlay includes INR 6,853 crore for the installation and commissioning of the projects, and INR 600 crore for the upgradation of two ports to meet necessary logistical requirements.
- This is part of the larger VGF ecosystem of ~INR 4,50,000 crore to support the development of initial 37 GW of offshore wind.

Takeaways & Outlook

In April 2024, the Ministry of Power directed **gas-based generating stations to remain operational** during the summer months, in addition to keeping the **imported coal-based generation units operational**. This directive would remain valid for a period of two months, May and June 2024.

4 states issued their green open access regulations in this quarter. In April 2024, Manipur and Mizoram's joint electricity regulatory commission issued their GEOA regulations, while Meghalaya and Andhra Pradesh followed suit in May 2024.

In June 2024, an **additional capacity of 2 lakh tonnes of green ammonia was added to the SIGHT II's Mode 2A scheme**. This followed the robust response from the fertiliser industry in terms of the adoption of GH₂ and its derivatives as seen in their active bidding under the first tranche of the SECI's tender under this scheme.

Further in June 2024, Government of India approved **new transmission schemes worth INR 13,595 crore** to evacuate 4.5 GW RE power each from Rajasthan and Karnataka. INR 12,241 crore has been allocated to RJ for power evacuation and the remaining to KN for system strengthening.

Renewable energy finance: market concentration in RE auctions increased in Q1 FY25 with participation from 15 RE developers

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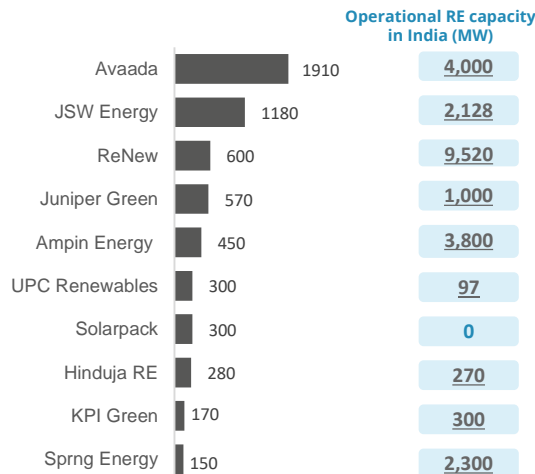
Notable deals (Q1 FY25)



76% Q1 FY25 Market concentration in auctioned RE capacity

Note: Market concentration is calculated as the ratio of the top five RE capacities awarded to the total RE capacity auctioned

Developer-wise* RE capacity auctioned during Q1 FY25 (6,200 MW)



*Source: CEEW-CEF Compilation. *Note: Includes the top ten developers in terms of auctioned capacity.*

Takeaways & Outlook

In Q1 FY25, 6.2 GW of RE capacity was auctioned. The private sector players monopolised the winning bids, with Avaada, JSW Energy, ReNew Power, and Juniper Green emerging as winners among others.

The market concentration saw an increase in Q1 FY25 to 76% (vs 61% in Q1 FY24), even as the total list of bidders included 15 developers winning capacities in the auctions.

In Q1 FY25, the deal activity was dominated by debt investments from domestic and international markets for RE project development in India.

Various RE developers announced plans of launching their initial public offerings in the coming months. NTPC Green Energy Limited announced IPO plans worth INR 10,000 crore for FY25, with IDBI Capital Markets, HDFC Bank, IIFL Securities and Nuvama Wealth Management being selected for managing the IPO process.

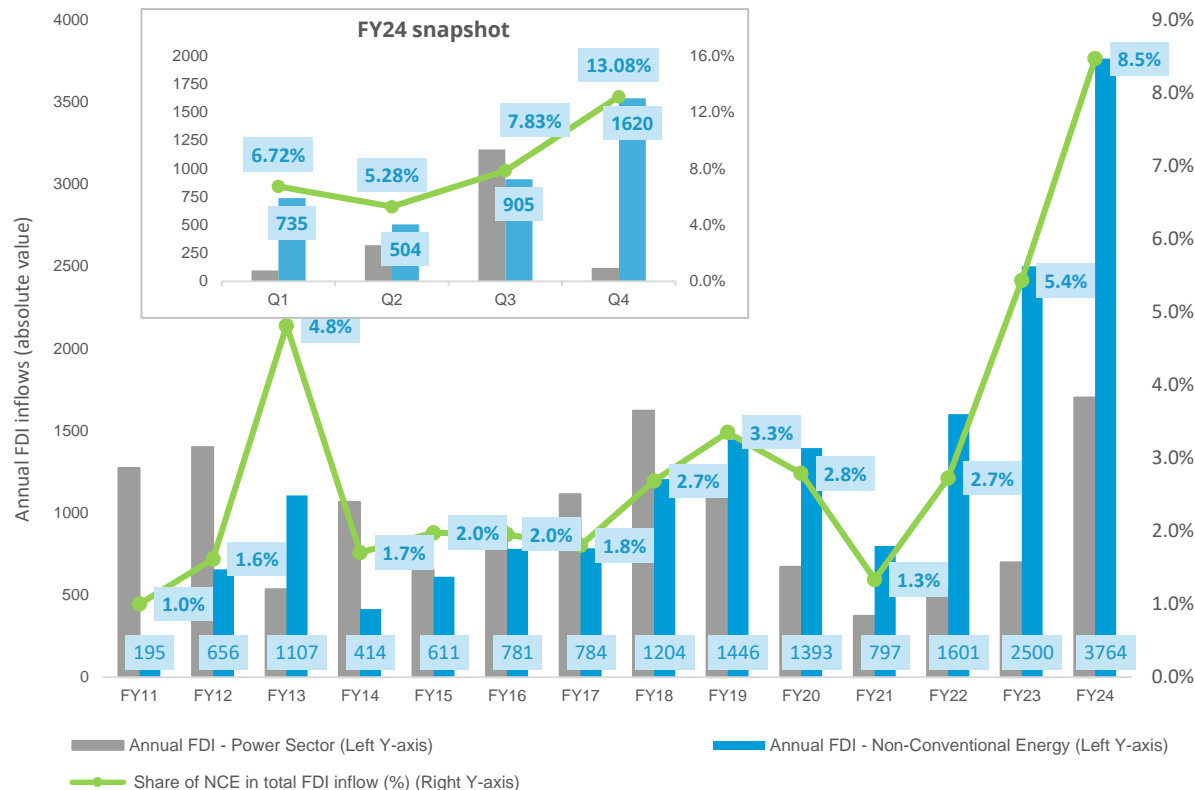
In May 2024, the Indian arm of Siemens AG, Siemens Ltd, announced the demerger of its energy business into a new entity, Siemens Energy India Limited, which will be listed separately, to allow the focused entities better positioned to serve their respective markets.

Source: CEEW-CEF Compilation; SMBC = Sumitomo Mitsui Banking Corporation of Japan.

Renewable energy finance: record high FDI in non-conventional energy in FY24 with ~50% annual increase to reach USD 3.7 billion

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Foreign direct investment in India (USD million)



Takeaways & outlook

Under the extant foreign direct investment (FDI) policy of the Government of India, **FDI in the renewable or non-conventional energy (RE) and power sectors is permitted up to 100% under the automatic route.**

Annual FDI addition in RE for FY24 amounted to USD 3.7 billion, representing an ~50% year on year increase.

In Q4 of FY24, the RE sector saw a record all time high FDI addition of USD 1.6 billion, accounting for ~13 % of the cumulative FDI flows in the quarter.

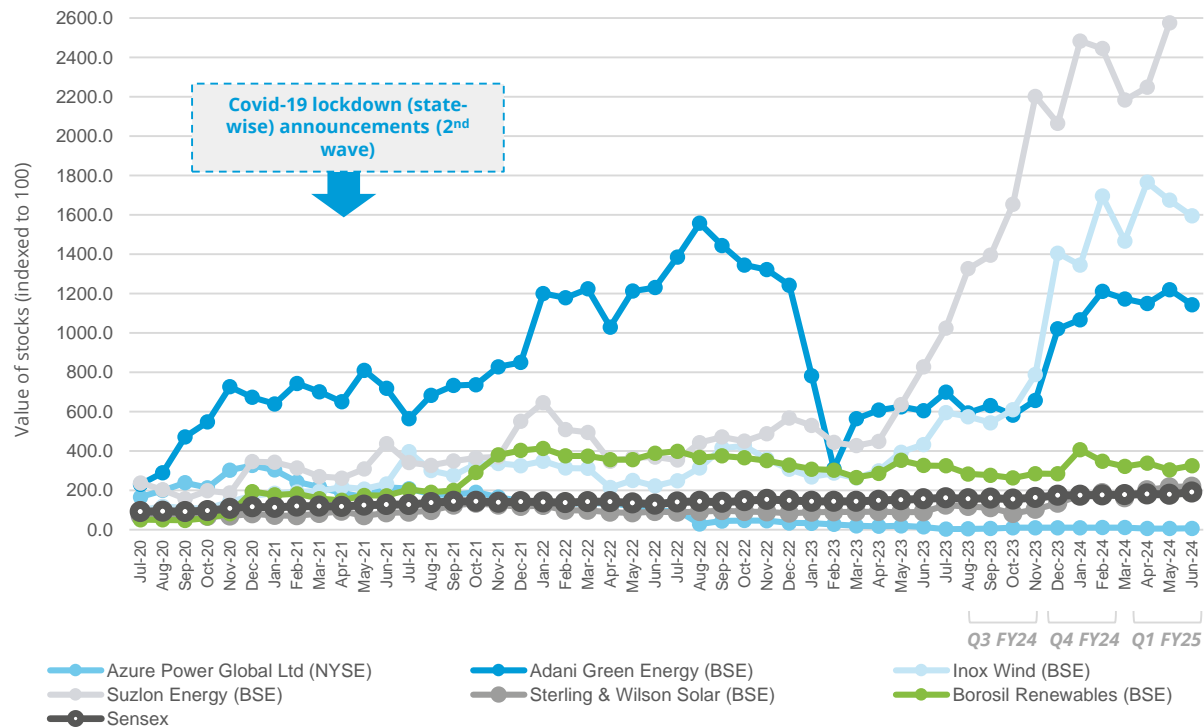
Post FY21, FDI in the RE sector saw a steep increase, amounting to USD ~8.6 billion until FY 24, with RE's share of total FDI over the last four years, growing from a low of 1.3 % to 8.5 % in FY 24.

FDI in the power sector for Q4 of FY24, amounted to only USD 118 million while the total FDI in the power sector for FY24 amounted to USD 1.7 billion.

Source: Department for Promotion of Industry and Internal Trade. (DPIIT)

Note: Non-conventional energy (NCE) = Renewable energy

Change in key renewable energy stock prices (indexed to 100)



Source: Money Control.

Note: Share prices are the last traded value in each month.

Takeaways & Outlook

In Q1 FY25, most listed RE stocks and the Sensex trended upwards.

The share price of RE developer **Adani Green Energy** was marginally down by 3%; however, that of **Sterling and Wilson** was up by 36% as of June 2024 (vs March 2024).

All the wind developer – manufacturers recorded upward trends throughout Q1 FY25. The share price of wind developer–manufacturers **Inox Wind** was up by 9%, whereas **Suzlon Energy's** share price was up by 31% at the end of June 2024 (vs March 2024). In April 2024, Inox Wind issued 3 bonus shares to every unit of equity held in the company.

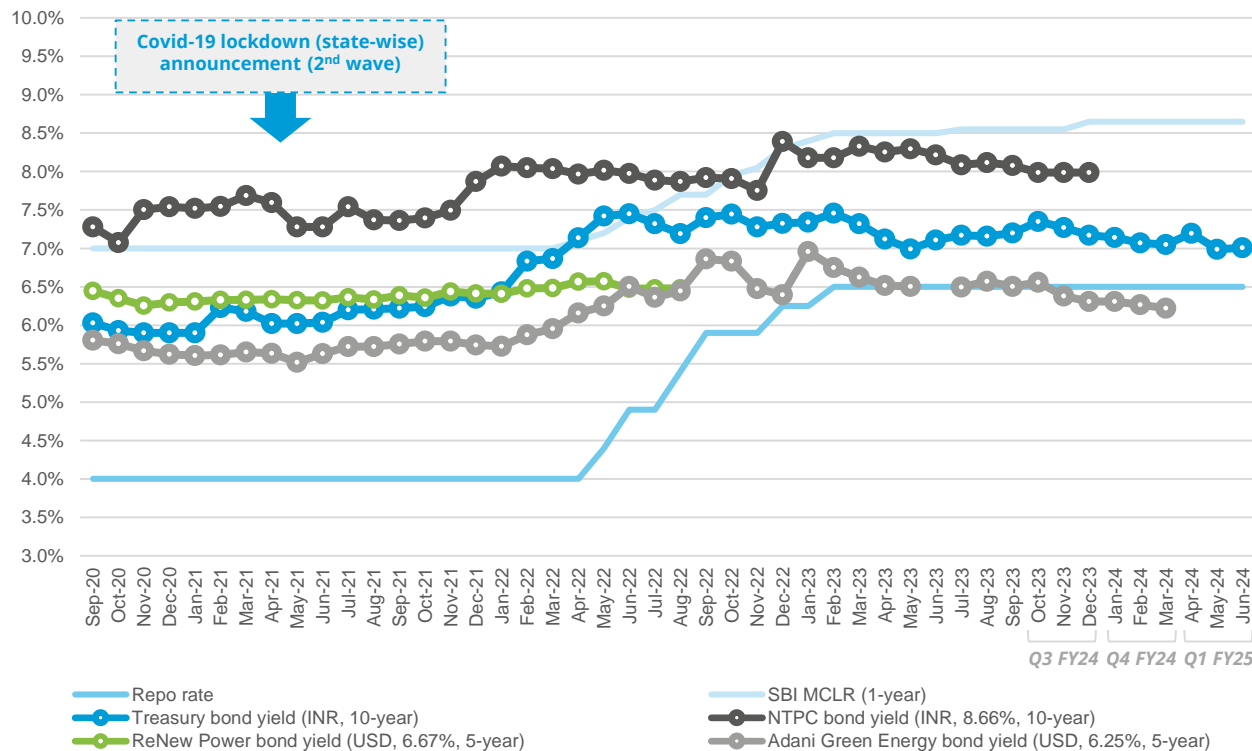
The share price of **Borosil Renewables**, which holds a near-monopoly position in India's solar panel glass manufacturing, was marginally down by 1% at the end of June 2024 (vs March 2024).

NYSE-listed solar project developer **Azure Power** recorded a slight downward trend, falling by 7% in June 2024 (vs March 2024).

Renewable energy finance: repo rate, reverse repo rate and SBI MCLR (1-year) rate remained unchanged in this quarter

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Bond yields* and key financial rates



Takeaways & Outlook

As per RBI's issuance calendar dated March 27, 2024, Government of India planned on raising **INR 12,000 crore** through two 10-year sovereign green bonds of INR 6,000 crore each, in the **first half of Q1 FY25**. However, in an auction for the notified amount of INR 6,000 crore held in **May 2024**, none of the 99 bids amounting to INR 12,677 crore were accepted in this quarter.

The repo rate, reverse repo rate and SBI MCLR (1 year) remained pegged at 6.50%, 3.35% and 8.65% in this quarter.

In March 2024, Adani Green Energy issued an 18-year USD 409 million green bond to refinance the dollar denominated green bonds issued in 2019 (6.25%, 5-year). The 2019 issuance was slated to mature in June 2024. The 18-year BBB- rated (Moody's) senior secured notes listed on the India International Exchange IFSC Limited were oversubscribed 7 times and would bear interest of 6.7%.

Source: Reserve Bank of India, State Bank of India, Trading Economics, Money Control and BondEvalue.

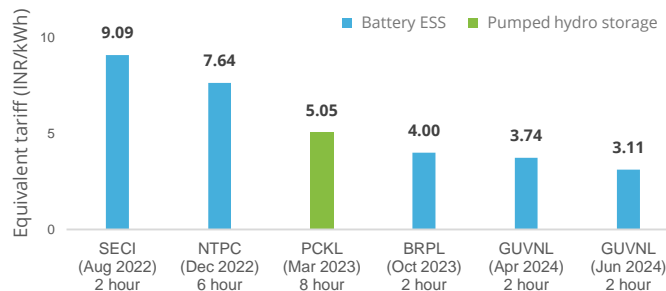
Note: Bond prices are the last traded value in each month; * Current yield.

Latest ESS tenders: announced

Project location & tender issue date	Application & technology	Details
Gadarwara & Solapur (NTPC), June 2024	250 MW/500 MWh, ESS	RFS released in Q1 FY25
Pan India (SECI), June 2024	1000 MW/2000 MWh, BESS, ESS II	RFS released in Q1 FY25
Pan India (NTPC) May 2024	1200 MW, FDRE	RFS released in Q1 FY25
Pan India (SECI) March 2024	1200 MW solar with 600MW/1200MWh ESS	RFS released in Q4 FY24
Pan India (MSEDCL) March 2024	1000 MW, PHS	RFS released in Q4 FY24
Pan India (SJVN) March 2024	600 MW, FDRE-II with greenshoe option of 600 MW	RFS released in Q4 FY24
Pan India (GRIDCO) March 2024	500 MW with 2500 MWh ESS	RFS released in Q4 FY24
Pan India (SECI) November 2023	1000 MW, RE with ESS (FDRE-V)	RFS released in Q3 FY24

Source: SECI and other REIAs, state bidding agencies. Rfs = request for selection; ESS = energy storage system.

Standalone ESS tenders: concluded



Source: SECI, NTPC and state bidding agencies.

GUVNL's standalone energy storage tender

GUVNL's 250 MW/500 MWh BESS Phase III tender concluded

- The total auctioned capacity was 250 MW/500 MWh. Gensol emerged as the winner for the entire capacity by quoting INR 3,72,978/MW/month.
- The storage facility will be utilised "on demand" basis in the peak and off-peak hours.
- The project will be on a BOO basis.
- The project will constitute of 2 charging cycles of the BESS.
- The battery energy storage purchase agreement (BESPA) shall be valid for a period of 12 years from the commissioning date of the project.
- Charging and discharging of the BESS system will be under the scope of GUVNL.

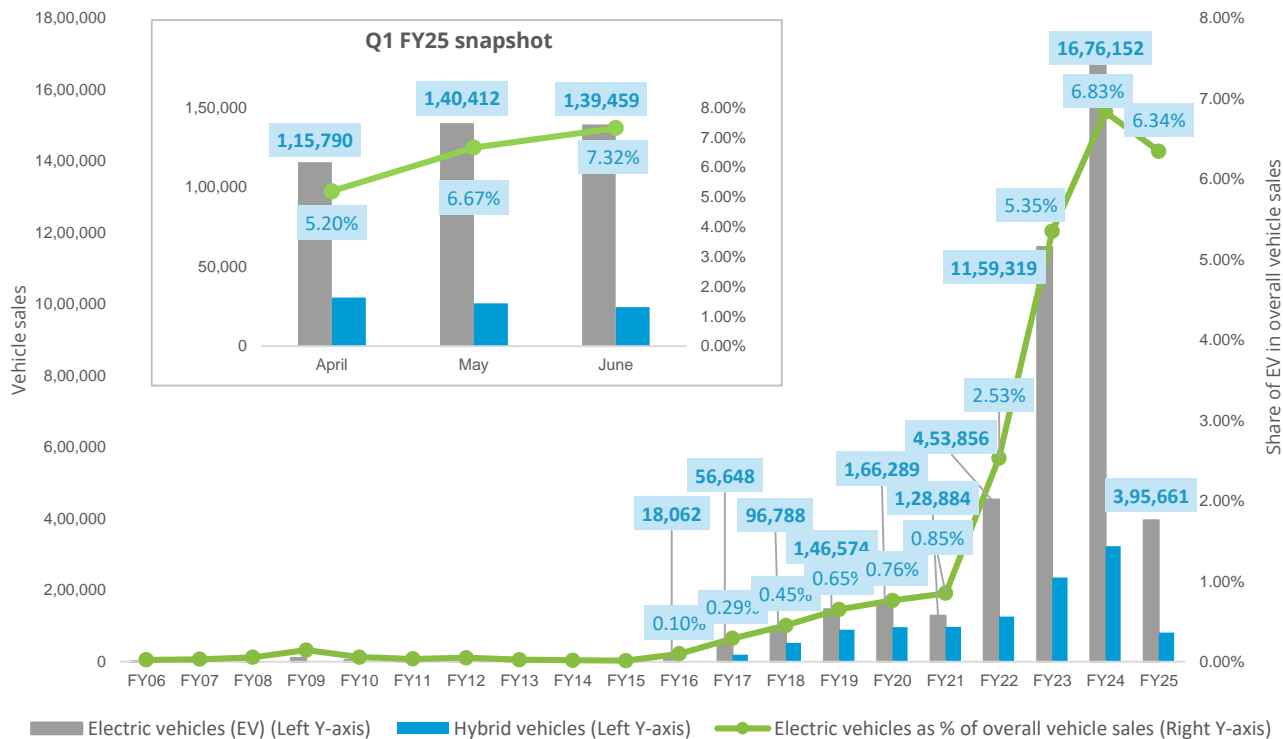
Source: CEEW-CEF compilation based on GUVNL Rfs document.

Takeaways & Outlook

In Q1 FY25, three new energy storage tenders were announced. These include NTPC's 250 MW/500 MWh standalone ESS in Gadawara and Solapur, SECI's 1000 MW/2000 MWh standalone ESS and NTPC's 1200 MW RE with storage (FDRE).

One energy storage tender was concluded in this quarter. **In June 2024, GUVNL's 250 MW/500MWh battery ESS was awarded to Gensol. The tariff discovered stood at INR 3.11 per unit, the lowest ever.** The tariff discovery for the tender witnessed a ~16.9% drop in a period of 3 months (GUVNL's March 2024 tender).

Electric vehicle sales in India



Takeaways & Outlook

In Q1 FY25, the share of EVs in overall vehicles sale stood at 6.34%. EV sales witnessed a slight dip in Q1 FY25, with a decrease of 3.39% vs Q1 FY24 and a drop of 19.36% vs Q4 FY24.

The drop in EV sales can be attributed to the expiry of the FAME-II scheme on March 31, 2024. Following the expiry, the Electric Mobility Promotion Scheme 2024, applicable for four months till 31 July, 2024, targets the e-2w and e-3w segments only.

OEMs with the highest EV sales* in Q1 FY25 were:

- 2W:** Ola Electric (1,08,161), TVS Motor (33,553) and Bajaj Auto (25,809)
- 3W:** Mahindra & Mahindra (12,146), YC Electric (10,070), Saara Electric (6,911)
- 4W:**** Tata Motors (14,724), MG Motors (4,168) and Mahindra & Mahindra (1,701)

Thank you

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Date	Company	Size (USD million)	Sector	Coupon rate (%)	Rating	Tenor (Years)	Purpose
March 2024	Adani Green Energy	409	Solar and wind	6.7%	BBB- (Fitch) (expected)	18	Refinancing of existing debt and finance green growth initiatives
April 2023	ReNew Power	400	Solar and wind	7.95%	BB- (Fitch) Ba3 (Moody's)	Not available	Refinancing of existing debt and finance green growth initiatives
April 2023	SAEL	161	Biomass	Not available	AA (CRISIL, India Ratings)	10	Finance green initiatives
March 2022	Avaada Energy	192	Solar	6.75	AAA (CRISIL, India Ratings)	3	Refinancing of existing debt
March 2022	Greenko	750	Energy storage	5.50%	Ba1 (Moody's)	3	Refinance existing debt and fund the capital expenditures at asset level
January 2022	ReNew Power	400	Solar and wind	4.50%	BB- (Fitch)	5.25	Refinance existing debt and fund capital expenditure
September 2021	Adani Green Energy	750	Solar and wind	4.375%	Ba3 (Moody's)	3	Fund equity portion of capital expenditure for under-construction projects
August 2021	Azure Power	414	Solar	3.575%	Not available	5	Refinance existing higher cost green bond debt
July 2021	Acme Solar	334	Solar	4.70%	Not available	5	Refinancing of existing debt
July 2021	Vector Green Energy	165	Solar	6.49%	AAA (CRISIL, India Ratings)	3	Refinance existing high-cost debt of solar projects
May 2021	JSW Hydro	707	Hydro	4.50%	BB+ (EXP) (Fitch)	10	Repayment of existing green project-related rupee-denominated debt
April 2021	ReNew Power	585	Solar and wind	4.50%	BB- (Fitch)	7.25	Refinancing of existing debt

Source: Climate Bonds Initiative and company press releases.

Date	Company	Size (USD million)	Sector	Coupon rate (%)	Rating	Tenor (Years)	Purpose
March 2021	Greenko	940	Solar and wind	3.85%	BB (Fitch)	5	Redemption of previous fund raise
March 2021	Hero Future Energies	363	Solar and wind	4.25%	BB- (Fitch)	6	Refinancing of existing debt
February 2021	ReNew Power	460	Solar and wind	4.00%	BB- (Fitch)	6	Refinancing of existing debt
February 2021	Continuum Green Energy	561	Solar and wind	4.50%	BB+ (Fitch)	6	Refinancing of existing debt
October 2020	CLP Wind Farms	40	Wind	Not available	AA (India Ratings)	2 to 3	Refinancing of existing debt
October 2020	ReNew Power	325	Solar and wind	5.375%	BB- (Fitch)	3.5	Refinancing high-cost local debt
January 2020	ReNew Power	450	Solar and wind	5.875%	BB-/Stable (Fitch)	5	Refinancing of maturing debt
October 2019	Adani Green Energy	362.5	Solar and wind	4.625%	BBB- (Fitch)	20	Repaying foreign currency loans and rupee borrowings
September 2019	ReNew Power	90	Solar and wind	6.67%	BB (Fitch)	4.5	Refinancing of existing debt
September 2019	Greenko	85	Solar and wind	5.95%	BB- (Fitch)	6.75	Refinancing of existing debt
September 2019	Azure power	350	Solar	5.65%	BB (Fitch)	5	Refinancing of existing debt
September 2019	ReNew Power	300	Solar and wind	6.45%	Ba2 (Moody's)	5	Capacity expansion and repaying high cost debt

107%

FAME-II target met

As of 8 July 2024

Note: Target of selling 1,562,090 EVs (2W, 3W, 4W and buses) under FAME-II scheme by FY22.

651

Number of EV OEMs in India

As of 8 July 2024

234

Total FAME II approved models

As of Q1 FY25

Recent electric vehicle launches



RUV 350i EX

Price: INR 1,09,999 onwards

Range: 105 km

Battery capacity: 2.3 kWh Lithium-ion



Okaya Ferrato Disruptor

Price: INR 1,60,000 onwards

Range: 129 km

Battery capacity: 3.97 kWh Lithium-ion



Euler Motors HiLoad

Price: INR 1,21,000 onwards

Range: 170 km

Battery capacity: 13 kWh



Hyundai

Price: INR 7,98,000 onwards

Range: 230 km

Battery capacity: 17.3 kWh Lithium-ion

EV penetration

In Q1 FY25

5.86%

2W sold were EV

54.67%

3W sold were EV

3,95,661

EVs sold

in Q1 FY25

25

States notified EV policies

As of Q1 FY25

For more updates visit [CEEW-CEF Electric Mobility Dashboard](https://cef.ceew.in)

About us: Impacting sustainable development at scale with data, integrated analysis, and strategic outreach

21

TRANSFORMATIONS

Low-carbon Economy

Energy Transitions

Power Markets

Industrial Sustainability

Sustainable Livelihoods

QUALITY OF LIFE

Clean Air

Sustainable Water

Sustainable Food Systems

Sustainable Cooling

Sustainable Mobility

ENABLERS

Sustainable Finance

Technology Futures

Circular Economy

Climate Resilience

International Cooperation

300+

Multidisciplinary team

380+

Peer-reviewed publications

190+

Instances of increased data transparency

540+

Roundtables & conferences

20+

Indian states engaged

130+

Bilateral & multilateral initiatives promoted

SPECIAL INITIATIVES

CEEW Centre for Energy Finance

Powering Livelihoods

Emerging Economies

UP State Office

Build evidence

Consistent, reliable, and up to date monitoring & analysis of clean energy markets – investment, payment schedules, market trends, etc.

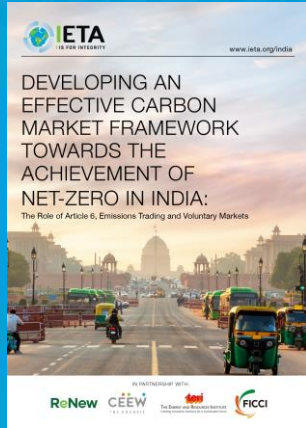
Create coherence

Periodic convening of multi-stakeholder groups to deliberate on market activities in clean energy

Design solutions

Design and feasibility pilots of fit-for-purpose business models & financial solutions for clean energy solutions

Our recent publications, dashboards and tools



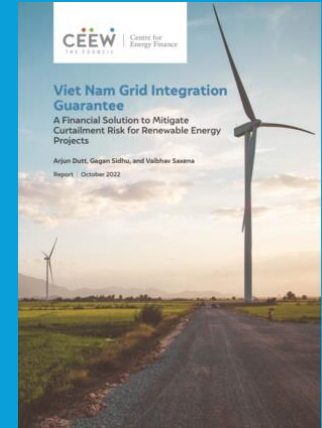
Developing An Effective Carbon Market Framework Towards The Achievement Of Net-Zero In India



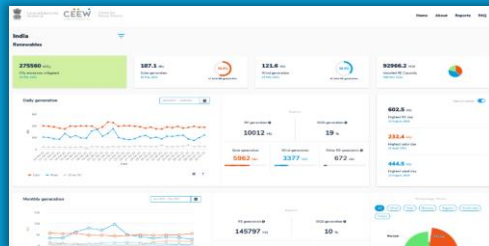
Greening India's Automotive Sector



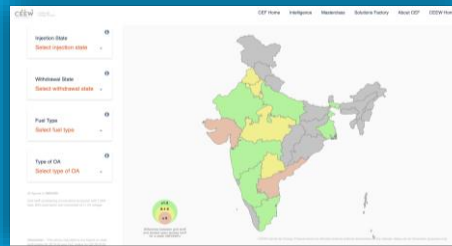
Mobilizing Investment For Clean Energy In India



Viet Nam Grid Integration Guarantee



India Renewables Dashboard



Open Access Tool



Electric Mobility Dashboard