

CEEW-CEF Market Handbook Q2 2024-25

28 November 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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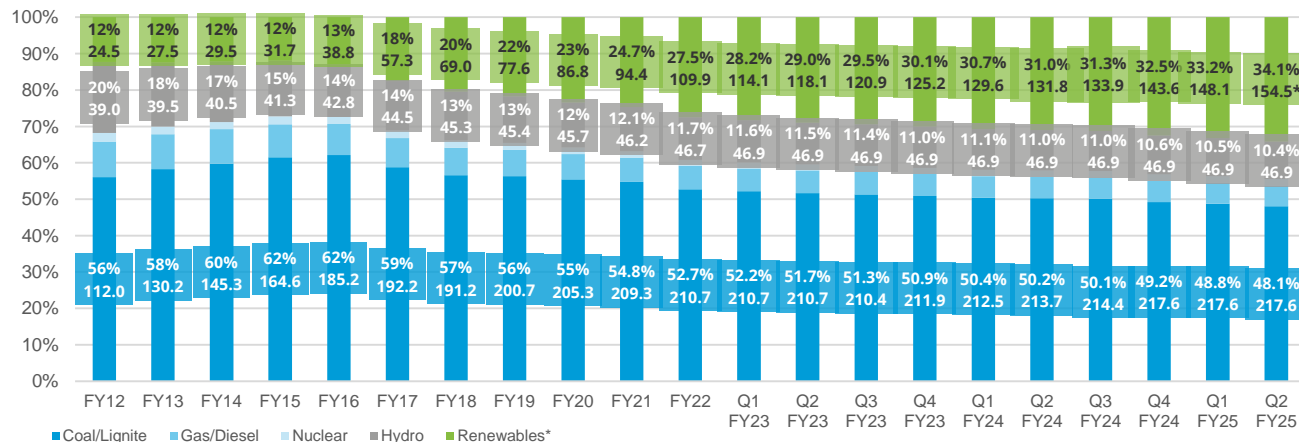
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Generation capacity: 6.5 GW generation capacity added in Q2 FY25; India's installed RE capacity crosses the 200 GW mark

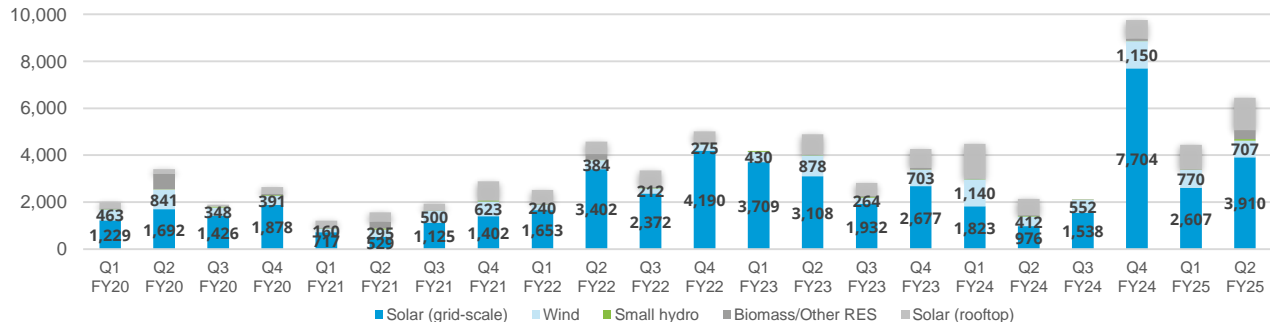
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Installed capacity mix (GW)



Source: Central Electricity Authority (CEA). *Includes solar rooftop capacity (14300.49 MW as of September 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 Q2 FY25, a net generation capacity of 6.5 GW was added (vs 3.5 GW in Q2 FY24). The total net capacity addition comprised renewable energy (RE) (6.4 GW) and coal-based capacity (60 MW). No new gas, diesel, nuclear or hydropower capacity was added in this quarter.

In RE, solar (grid-scale and rooftop) continued to dominate capacity addition, accounting for 5,288 MW (82%) (vs 1,684 MW in Q2 FY24) of total RE addition. Wind capacity addition stood at 707 MW (11%) in Q2 FY25 (vs 412 MW in Q2 FY24). Biopower (380 MW) and small hydro (71 MW) contributed 5.9% and 1.1% respectively.

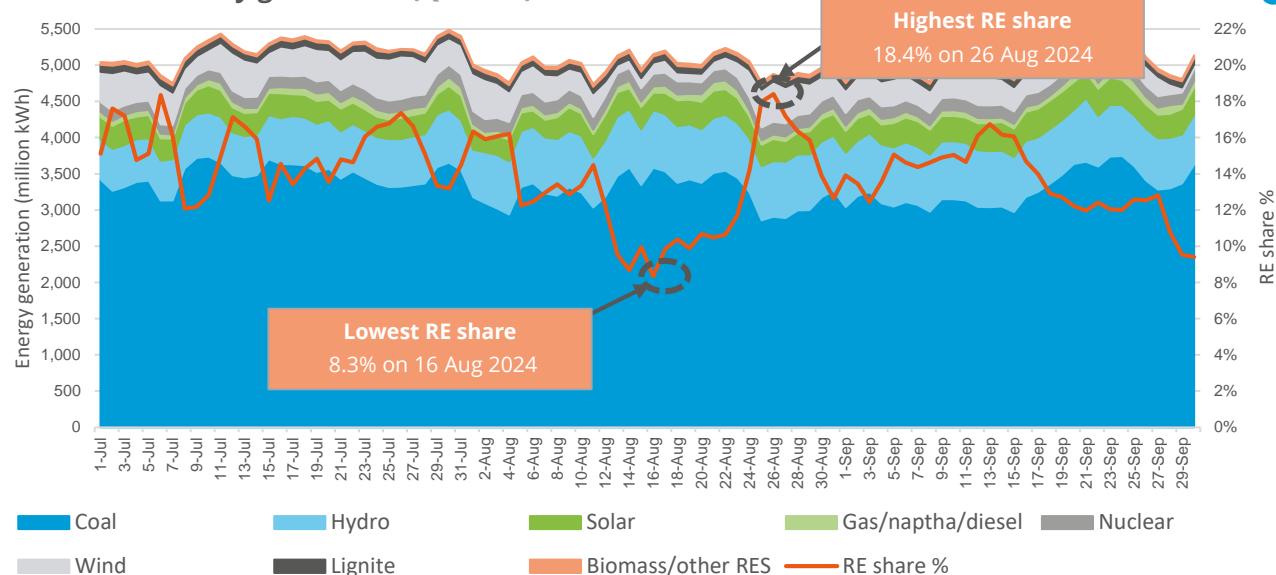
In Q2 FY25, the total installed RE# capacity crossed 201 GW, including 90.8 GW of solar, 47.4 GW of wind, 46.9 GW of large hydro, and 11.3 GW of biopower capacity.

As of 30 September 2024, 79.2 GW of RE capacity is under construction, comprising 51.5 GW of solar, 14.9 GW of wind and 12.8 GW of hybrid capacity, among others.

Energy mix: total power generation increased slightly by 1% in Q2 FY25, RE (excl hydro) generation up by 5.8%

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Source-wise daily generation (Q2 FY25)



RE share snapshot

Q2 FY23			Q2 FY24			Q2 FY25		
	RE share %	Day		RE share %	Day		RE share	Day
Highest	17.4%	12 July 2022		18.2%	2 August 2023		18.5%	26 August 2024
Lowest	7.5%	30 August 2022		8.9%	1 September 2023		8.3%	16 August 2024
Average (Daily)	12.9%	NA		13.2%	NA		13.9%	NA

Takeaways & Outlook

The total power generation slightly increased by 1.0% in Q2 FY25 (469 billion kWh) compared to Q2 FY24 (464 billion kWh) and reduced by 4.4% in comparison to Q1 FY25 (490 billion kWh).

- **July:** Up by 7.9%
- **August:** Down by 4.7%
- **September:** Up by 0.2%
- **Total Q2 FY25:** Up by 1.0%

In Q2 FY25, RE generation increased by 5.8% versus the same quarter in the previous fiscal year (Q2 FY24). Coal/lignite-based generation was slightly down by 1.1%; however, hydro generation increased by 6.2% in the same period.

From an average daily generation perspective, the share of RE and hydro increased slightly and the share of coal/lignite decreased slightly, in Q2 FY25 compared to Q2 FY24.

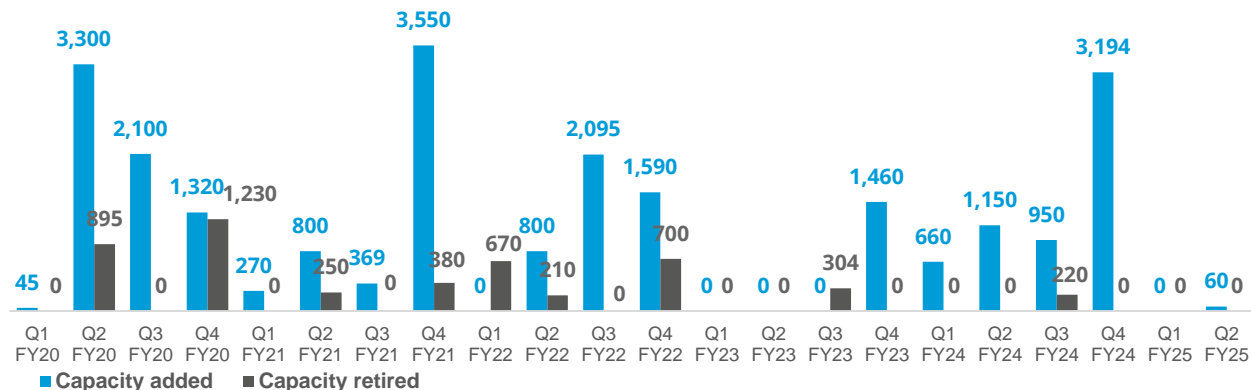
- **RE:** Share slightly up from 13.2% to 13.9%
- **Hydro:** Share slightly up from 13.4% to 14.1%
- **RE + Hydro:** Share slightly up from 26.6% to 27.9%
- **Coal/lignite:** Share slightly down from 68.6% to 67.2%

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.

Coal phase-out: 60 MW of new coal capacity added in Q2 FY25; share of conventional generation in the PFC/REC loan book reduced to 36%

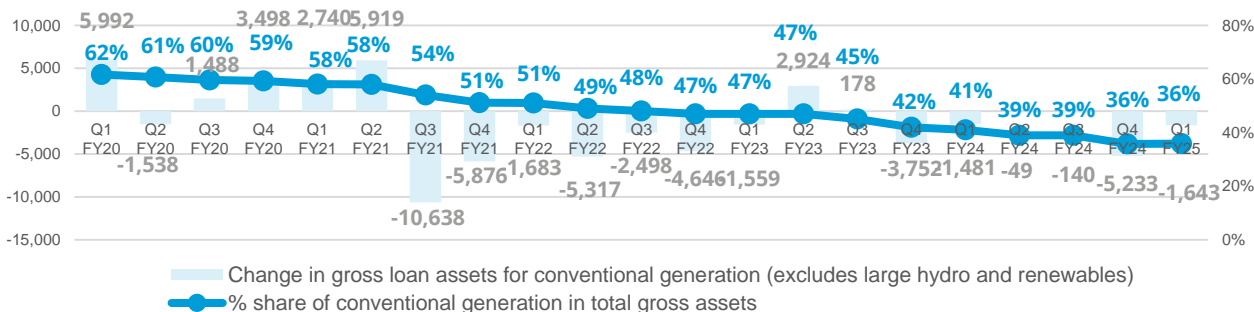
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Coal capacity added versus retired (MW)



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 Q2 FY25.

Takeaways & Outlook

In Q2 FY25, 60 MW of new coal capacity was added, while no capacity was retired. 30 MW of capacity was added in Maadurga Thermal Power Company (MTPCL)'s Unit 1 and 2 each.

PFC/REC, India's largest power financier, continued to show a downward trend in the share of conventional generation, declining to 36% in Q1 FY25 from 39% in Q1 FY24.

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 2,25,831 crore) and 12.6% (INR 59,844 crore) of its total loan book as of Q1 FY25 vs 46% (INR 1,99,353 crore) and 11.5% (INR 49,707 crore) in Q1 FY24, respectively.

In August 2024, Power Finance Corporation secured a loan of JPY 25.5 billion (USD 173 million) from the Japan Bank for International Cooperation (JBIC). The funds will finance a 300 MW wind energy project in Karnataka.

14.7^{GW}

RE auctions concluded in Q2 FY25

Notable auctions	Capacity allotted (MW)	Least tariff discovered (INR/kWh)
MSEDCL, Maharashtra, wind-solar hybrid (phase III), 1,650 MW (July 2024)	1,601	3.6
SECI, pan India, solar with ESS (tranche XV), 1,200 MW with 600MW/1,200 MWh (July 2024)	1,200	3.41
SECI, Gujarat and Karnataka, wind (tranche XVI), 1,350 MW (July 2024)	1,175	3.61
SJVN, pan India, solar, 1,200 MW (August 2024)	1,200	2.52
NHPC, pan India, FDRE (tranche II), 1,200 MW (September 2024)	1,200	4.37
MSEDCL, Maharashtra, solar, 5,000 MW (September 2024)	5,000	2.7

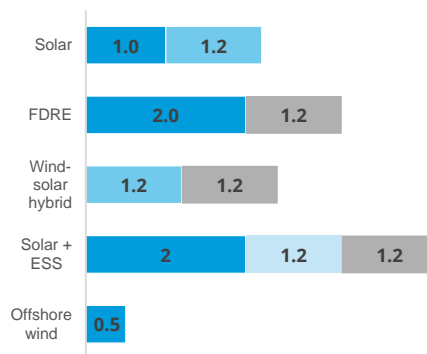
12.7^{GW#}

RE tenders announced in Q2 FY25

Capacity announced by REIAs in GW



Technology-wise REIA tenders announced in GW



Takeaways & Outlook

Auctioned RE capacity stood at 14.7 GW in Q2 FY25, of which **vanilla solar** took the major share standing at 7.9 GW (54%), while **vanilla wind** stood at 1.18 GW (8%). The share of **innovative power procurement formats** in auctioned capacity stood at 5.6 GW (38%). Auctioned capacity in Q2 FY25 was balanced between central bidding agencies, such as SECI's 1,200 MW solar with 600 MW/1,200 MWh storage and NHPC's 1,200 MW FDRE auctions, and state bidding agencies like MSEDCL's 5,000 MW solar and 1,650 MW hybrid auctions.

The auctioned capacity in Q2 FY25 was significantly higher than previous quarters, with the exception of the last quarter of FY24.

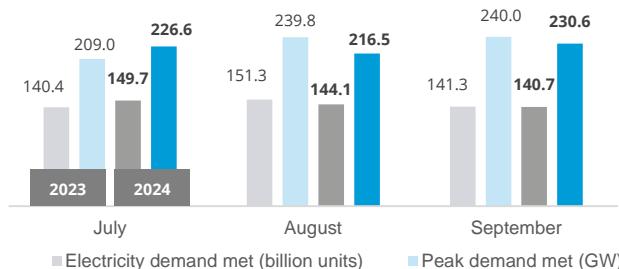
- Q2 FY25: 14.7 GW
- Q1 FY25: 6.2 GW
- Q4 FY24: 18.66 GW
- Q3 FY24: 8.84 GW

In Q2 FY25, the designated REIAs announced 12.7 GW capacity of RE tenders, of which **vanilla solar** stood at 17%. **Innovative procurement formats** accounted for 83%. No vanilla wind tenders were announced in this quarter. With this, REIAs **have** met ~44% of the annual bidding trajectory target in the first half of the financial year.

Source: SECI and state renewable agencies.

SECI = Solar Energy Corporation of India; MSEDCL = Maharashtra State Electricity Distribution Company Limited; NHPC = National Hydroelectric Power Corporation; REIA = Renewable Energy Implementing Agencies. #Excluding standalone storage tenders. Note: Bids issued = tenders announced.

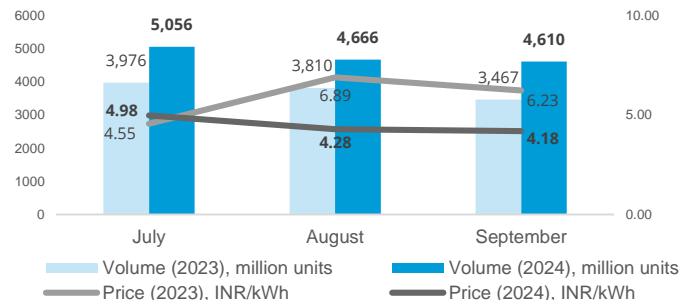
Power supply position (peak and electricity demand)



Source: CEA.

Electricity demand met and peak demand met in **July 2024 increased** compared to July 2023, but **reduced in August and September** compared to the previous year.

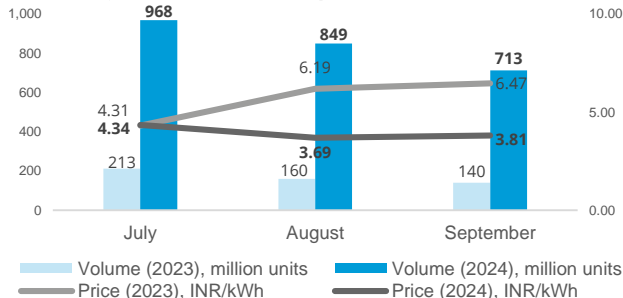
Day-ahead spot market snapshot (IEX)



Source: IEX.

Higher volumes were traded in the day-ahead spot market in Q2 FY25 (vs Q2 FY24), with significantly lower market clearing prices. Lower MCPs offer an opportunity for DISCOMs and open access consumers to optimise their power procurement costs.

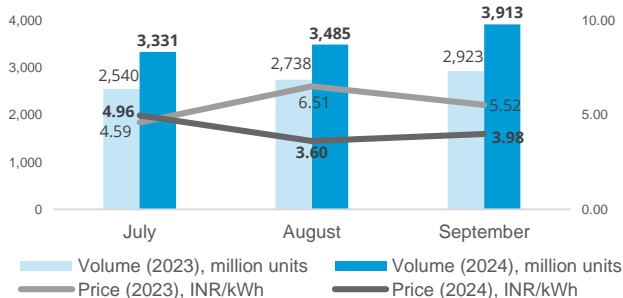
Green day ahead market snapshot (IEX)



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

Volumes traded in the **green day-ahead market (GDAM) were significantly higher** in Q2 FY25 (vs Q2 FY24). Steady monsoon in August and September led to higher hydro and wind generation, resulting to a drop in the MCP, compared to Q2 FY24 levels.

Real-time market snapshot (IEX)



Source: IEX.

The real time market (RTM) recorded the highest ever monthly volume of 3,913 million units in September 2024. In Q2 FY25, the RTM segment registered a record of 10,729 million units of volume traded, registering 31% increase compared to Q2 FY24.

Takeaways & Outlook

In Q2 FY25, **the peak power demand in the country contracted to 230.6 GW** in September 2024, from 240 GW in the same month previous year. The average monthly electricity demand (met) in Q2 FY25 remained similar to Q2 FY24, with a slight uptick of 0.3%, standing at 144.3 billion units. India's energy requirements reduced owing to the onset of monsoon in August and above-normal rainfall across the country in September 2024.

In Q2 FY25, 6.3 million solar RECs were traded at an average price of INR 0.12/kWh on IEX. In contrast, in Q2 FY24, 1.3 million solar RECs were traded at an average price of INR 0.57/kWh. An increase of 384% was recorded in the REC volumes traded during Q2 FY25 (vs Q2 FY24). There was no trading of non-solar RECs in both quarters. In September 2024, the lowest ever trading price of INR 110 per REC (INR 0.11/kWh) was discovered on the exchange.

In July 2024, 7,000 energy saving certificates (ESCerts) were traded at the average floor price of INR 2,165 per ESCert. Later in July, Bureau of Energy Efficiency announced a pause in the trading of ESCerts under PAT Cycle III until further notification.

Policy and regulatory developments: various operational guidelines for PM Surya-Ghar components published; new EV policies announced

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Various operational guidelines for rooftop solar installation under PM Surya Ghar issued by MNRE

- In July 2024, the guidelines for saturation of government buildings with rooftop solar at both the central and state levels were issued.
- The guidelines for the component of capacity building were issued, which involves skilling jobs, undertake capacity building with DISCOMs, financial institutions, etc. with a total outlay of INR 657 crore.
- The guidelines for the component of incentives to local bodies were also issued. This component for the gram panchayats of urban local bodies (ULBs) has a financial outlay of INR 1,000 crore.
- The guidelines for incentives to DISCOMs were published. This component with an outlay of INR 4,590 crore facilitates the RTS installations through availability of net meters, timely inspection, etc.
- The guidelines for awareness and outreach with an outlay of INR 657 crore were also published.
- In August 2024, the guidelines to create one model solar village in each district of the country with an outlay of INR 800 crore was published.

Guidelines for implementation of Viability Gap Fund for offshore wind energy projects published

- In September 2024, the Government of India sanctioned 1,000 MW capacity with an outlay of INR 6,853 crore for offshore wind projects till FY 2031-32.
- The scheme will be implemented by MNRE through SECI as the implementing agency of this scheme.
- National Institute of Wind Energy (NIWE) has conducted studies and surveys for sites off the coast of Gujarat and Tamil Nadu.
- The bids would be issued by SECI and the power purchase agreement for 25 years.

MoP published guidelines for installation and operation of EV charging infrastructure

- The guidelines would be applicable to manufacturers, owners and operators of EV charging infrastructure, power utilities, and central and state agencies.
- Charge point operators may apply for an electricity connection for their EV charging stations.

MNRE issues draft norms for ALMM on solar cells from April 2026

- The draft norms announced by MNRE pertains to List II for models and manufacturers of solar PV cells.
- Following the implementation of List II, all List I manufacturers of solar modules will have to source their cells from those included in List II.

New EV policies announced

- Following the completion of FAME II on March 31, 2024 and EMPS on September 30, 2024, the Union Government has announced the PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-DRIVE) for promotion of electric mobility and PM-eBus Sewa-Payment Security Mechanism (PSM) scheme for procurement and operation of e-buses by public transport authorities.
- The schemes have an outlay of INR 10,900 crore and INR 3,435 crore, and expected to run for 2 and 5 years respectively.

Takeaways & Outlook

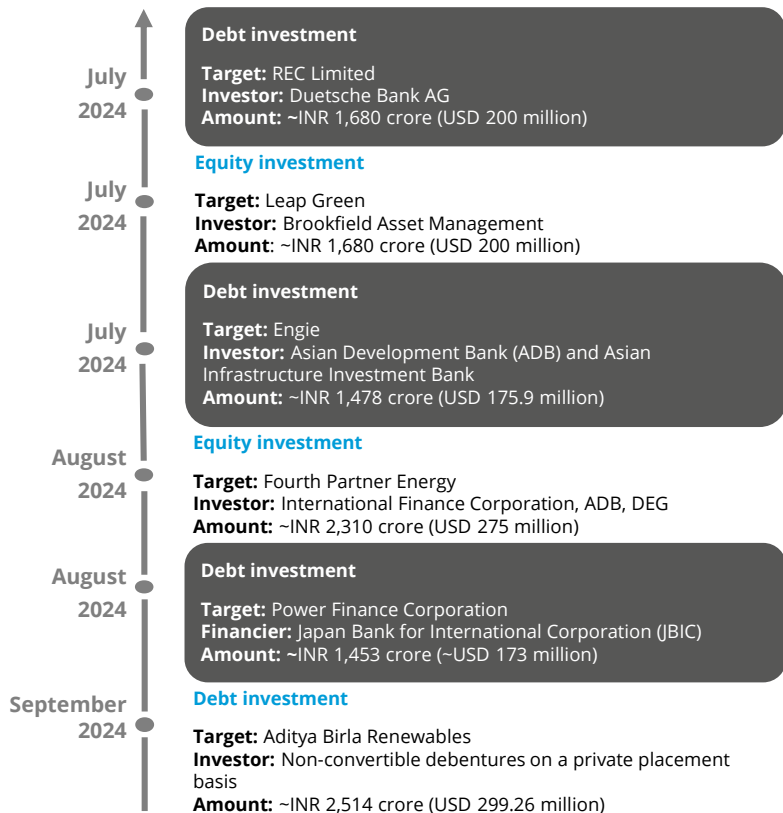
In July 2024, MNRE announced the **scheme guidelines for implementation of SIGHT Component II for green hydrogen production (under Mode 1) Tranche II**. The capacity available for bidding under this tranche is 450,000 MT per annum, with the maximum allocation to a single bidder under this tranche will be 90,000 MT per annum.

One state issued their green open access regulations in this quarter. In September 2024, state of Goa and union territories' joint electricity regulatory commission issued their GEOA regulations, while Gujarat amended their GEOA regulations for the first time.

Renewable energy finance: market concentration in RE auctions increased in Q2 FY25 with participation from 22 RE developers

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Notable deals (Q2 FY25)

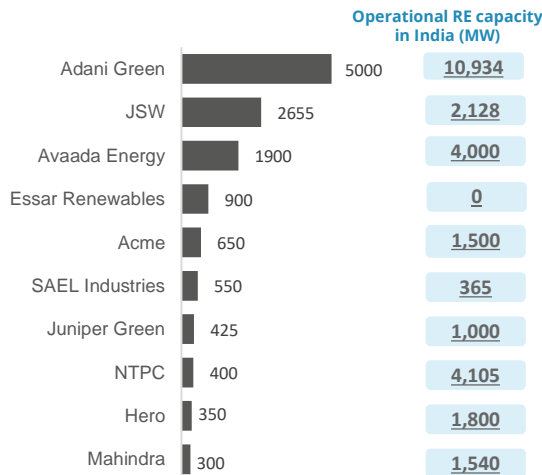


Source: CEEW-CEF Compilation DEG = Deutsche Investitions- und Entwicklungsgesellschaft (German Investment Cooperation).

76% Q2 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 Q2 FY25 (14,706 MW)



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

Takeaways & Outlook

In Q2 FY25, 14.7 GW of RE capacity was auctioned. The private sector players monopolised the winning bids, with Adani Green, JSW Energy, Avaada, Essar Renewables, and Acme emerging as winners among others.

The market concentration saw a slight increase in Q2 FY25 to 76% (vs 74% in Q1 FY24). Adani Green, JSW Energy and Avaada Energy accounted for ~65% of the RE auctioned capacity (out of a total of 22 bid winners in Q2 FY24).

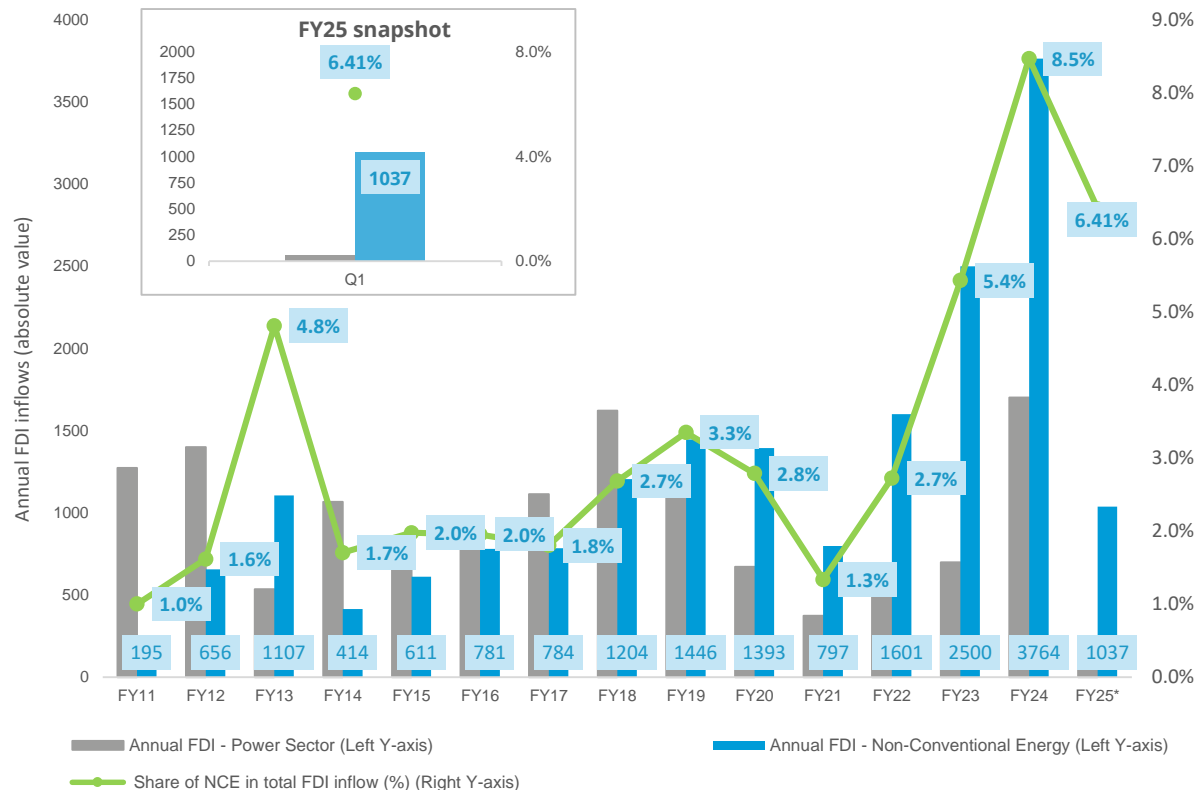
In Q2 FY25, the deal activity consisted of both debt and equity investments from domestic and international sources for RE projects and solar module manufacturing in India. Juniper International received investment from ValueQuest to further their solar cell manufacturing plans.

RE developers Acme Solar and NTPC Green Energy filed draft offer documents for their initial public offerings amounting to INR 3,000 crore and INR 10,000 crore in July and September 2024 respectively. NLC India announced their plans to raise funds via an IPO through its wholly-owned subsidiary NLC India Renewables Limited in Q1 FY26.

Renewable energy finance: FDI continues momentum in FY25, surging to ~USD 1 billion in Q1 FY25, marking the strongest first quarter on record

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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.**

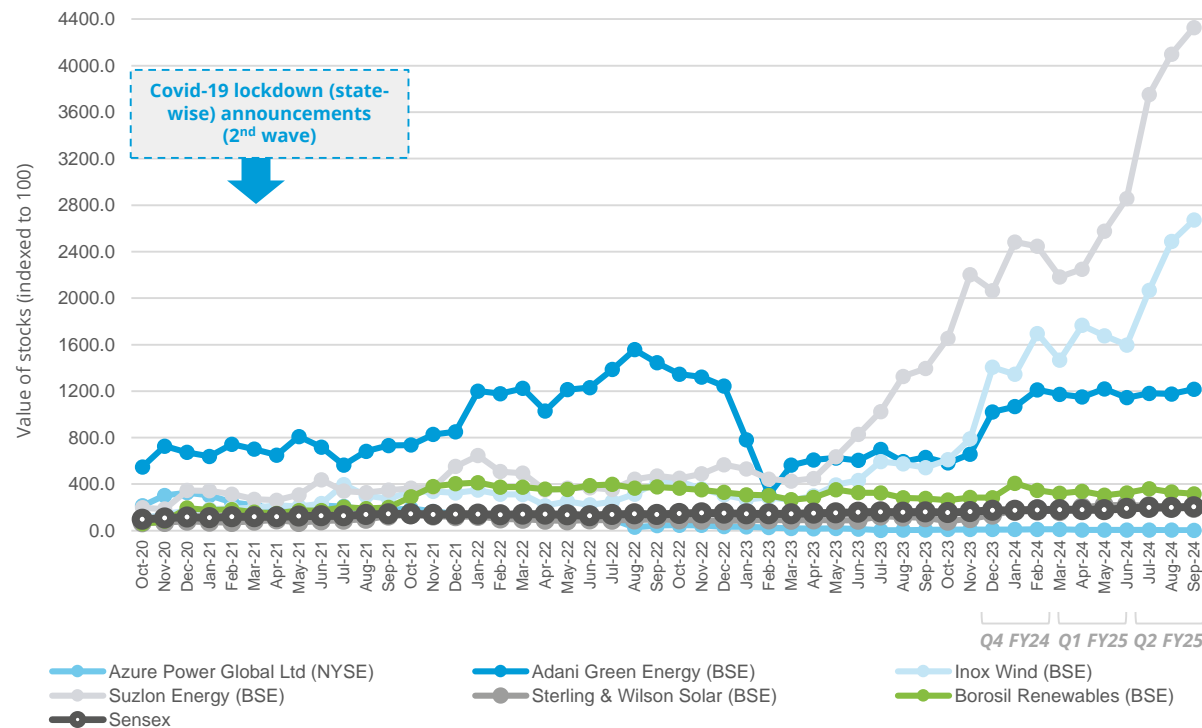
Annual FDI addition in RE for FY25, as of Q1 amounted to ~USD 1 billion.

Q1 FY25 saw a 41% FDI increase over Q1 FY24 in RE. The share of this sector in the cumulative FDI flows accounted for ~6.5 per cent in Q1 FY25, similar to that in the previous quarters.

FDI in the power sector for Q1 FY25, amounted to only ~USD 56 million, a stark dip of 42% over Q1 FY24.

Post FY21, FDI in the RE sector saw a steep increase, amounting to ~USD 8.6 billion until FY24, with RE's share of total FDI over the last four years, growing from a low of 1.3% to 8.5% in FY24.

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



Takeaways & Outlook

In Q2 FY25, most listed RE stocks and the Sensex trended upwards.

The share price of RE developer **Adani Green Energy** was marginally up by 6%; however, that of **Sterling and Wilson** was down by 14% as of September 2024 (vs June 2024).

All the wind developer – manufacturers recorded upward trends throughout Q2 FY25. The share price of wind developer–manufacturers **Inox Wind** was up by 67%, whereas **Suzlon Energy's** share price was up by 51% at the end of September 2024 (vs June 2024).

The share price of **Borosil Renewables**, which holds a near-monopoly position in India's solar panel glass manufacturing, was marginally down by 2% at the end of September 2024 (vs June 2024).

NYSE-listed solar project developer **Azure Power** recorded a downward trend, falling by 51% in September 2024 (vs June 2024).

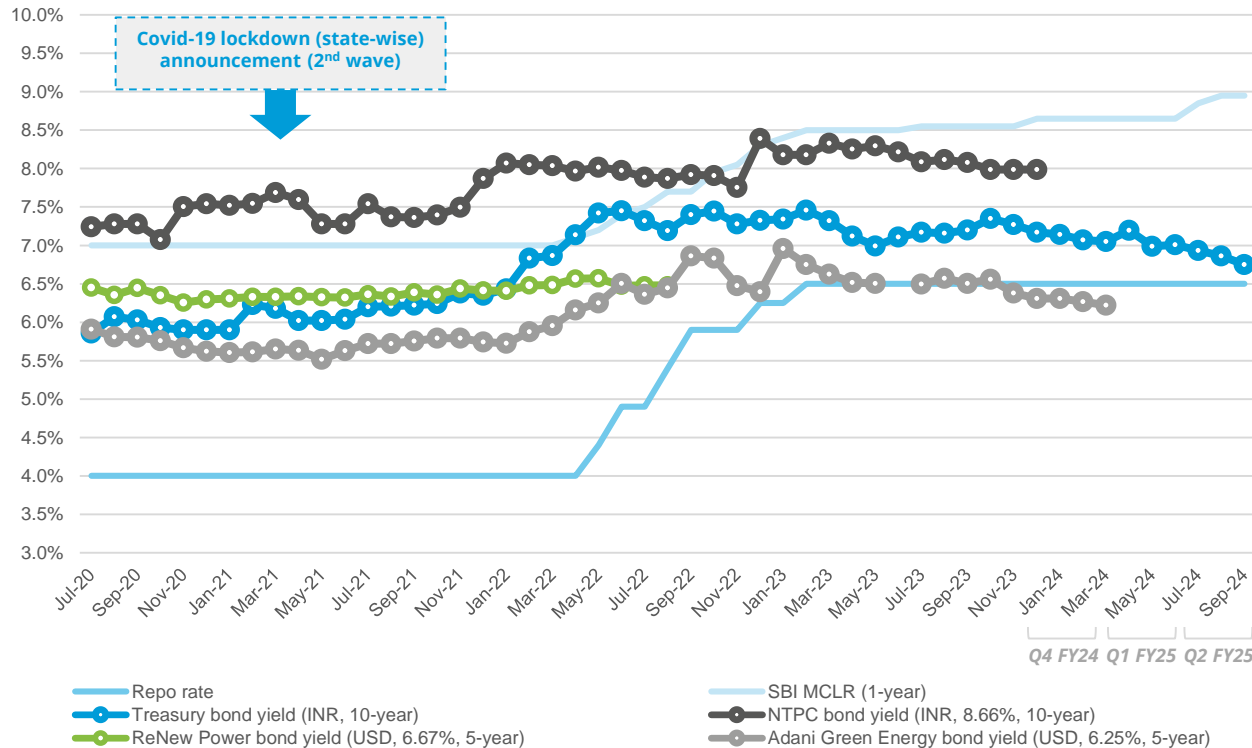
Source: Money Control.

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

Renewable energy finance: 20-year sovereign green bond auctioned in this quarter, partial amount of ~INR 1,697 crore accepted against INR 6,000 crore offering

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Bond yields* and key financial rates



Takeaways & Outlook

In August 2024, Reserve Bank of India (RBI) conducted a **sovereign green bond (SGrB) auction worth INR 6,000 crore for a 20-year bond**. The offering's coupon rate was yield-based which after auctions came out to be **6.9%**. A **partial amount of INR 1,697 crore has been accepted for the offering**. In September 2024, RBI announced **four SGrB issuances of INR 5,000 crore each in its issuance calendar for the second half of FY25**.

SAEL Group's maiden green bond issuance raised USD 305 million in July 2024. The bond was issued at a yield of 7.8% for a tenure of 7 years. This was the first renewable energy bond issuance to include waste-to-energy assets. It was jointly issued by SAEL and its five fully wholly-owned subsidiaries, and was oversubscribed ~6 times.

The repo rate and reverse repo rate remained pegged at 6.50% and 3.35% in this quarter. The SBI MCLR (1 year) rate was increased to 8.95% in August 2024, and remained constant since.

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

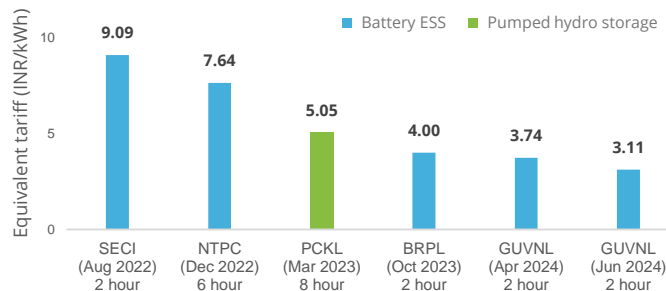
Note: Bond prices are the last traded value in each month; * Current yield.

Latest ESS tenders: announced

Project location & tender issue date	Application & technology	Details
Pan India, NHPC, September 2024	1,200 MW solar with 600 MW/1,200 MWh ESS	RfS released in Q2 FY25
Maharashtra (MSEDCL), August 2024	300 MW/600 MWh, BESS	RfS released in Q2 FY25
Gujarat (GUVNL), phase IV, August 2024	400 MW/800 MWh, BESS	RfS released in Q2 FY25
Uttar Pradesh (UPPCL), August 2024	300 MW/1200 MWh, BESS	RfS released in Q2 FY25
Pan India, SECI, August 2024	Assured peak power 2000 MW/8000MWh, FDRE	RfS released in Q2 FY25
Pan India, SJVN, July 2024	1,200 MW, FDRE	RfS released in Q2 FY25
Pan India, SECI, July 2024	2,000 MW solar with 1,000 GW/4,000 GWh BESS	RfS released in Q2 FY25
Kalaburgi, Karnataka (KREDL), July 2024	100 MW ground-mounted solar with 50 MW/130 MWh BESS	RfS released in Q2 FY25

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.

SECI's assured peak power tender

SECI's 8,000 MWh (2,000 MW x 4 hours) assured peak supply tender announced

- The total capacity available for auction is 2,000 MW.
- The buying entity shall chose the four hours out of the peak hours, which shall commence from the evening non-solar hours.
- The project will be on a BOO basis.
- SECI shall enter into a power purchase agreement (PPA) with the successful bidders for a period of 25 years.
- Only bidders who have operational solar PV connectivity are allowed to participate.
- The RE (including ESS component charged with RE sources) shall be eligible for RPO compliance.

Source: CEEW-CEF compilation based on SECI RfS document.

Takeaways & Outlook

In Q2 FY25, **three new standalone energy storage tenders were announced**. All tenders were announced by state agencies, which included UPPCL's 300 MW/1200 MWh standalone ESS, MSEDCL's 300 MW/600 MWh standalone ESS and GUVNL's 400 MW/800 MWh standalone ESS (phase IV).

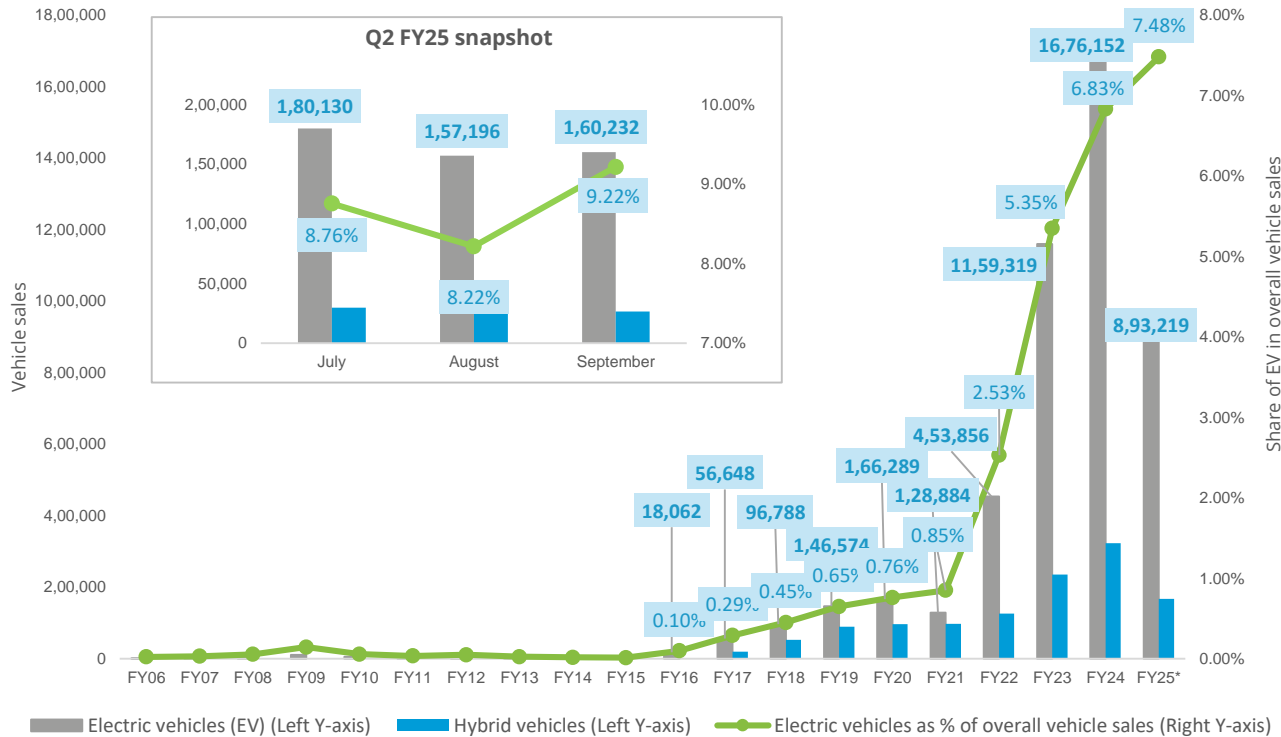
Further, six tenders included storage components, where four tenders were for solar with storage while two FDRE tenders were announced in this quarter.

In September 2024, SECI's 1000 MW/2000 MWh battery ESS II was awarded to JSW and Reliance Power. The tariff discovered stood at INR 3.18 per unit, a ~65% drop vs SECI's earlier tariff of INR 9.03 per unit in June 2022. However, the auction was later cancelled.

Electric mobility: new EV policies – PM-EDRIVE and PM e-Bus Sewa PSM announced, total outlay of ~INR 14,335 crore

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Electric vehicle sales in India



Takeaways & Outlook

In Q2 FY25, the share of EVs in overall vehicles sale stood at 7.48%. EV sales witnessed an increase of 34% in Q2 FY25, vs Q2 FY24 and an increase of 25.75% vs Q1 FY25.

In September 2024, the Union Government announced the new electricity vehicle policy, **PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-DRIVE)** Scheme along with the **PM-eBus Sewa-Payment Security Mechanism (PSM)** Scheme. The schemes backed by an outlay of INR 10,900 crore and INR 3,435 crore over a period of 2 and 5 years respectively.

OEMs with the highest EV sales* in Q2 FY25 were:

- 2W:** Ola Electric (94,125), TVS Motor (55,534) and Bajaj Auto (53,769)
- 3W:** Mahindra & Mahindra (18,091), Bajaj Auto (12,728), YC Electric (11,476)
- 4W:**** Tata Motors (13,157), MG Motors (4,042) and Mahindra & Mahindra (1,322)

Source: Vahan Sewa dashboard (includes only registered vehicles, unregistered vehicles include low-speed vehicles (< 25 km/hr), e-rickshaws (three-wheelers) and electric two-wheelers, Electric Mobility Dashboard (2024), CEEW Centre for Energy Finance. * Based on sales data up to Q2 FY25; **4W represents light motor vehicles and light passenger vehicles.

Thank you

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Date	Company	Size (USD million)	Sector	Coupon rate (%)	Rating	Tenor (Years)	Purpose
July 2024	SAEL	305	Solar and waste-to-energy	7.8%	BB+ (Fitch) (expected)	7	Refinancing of existing debt and finance growth initiatives
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 growth 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

Source: Climate Bonds Initiative and company press releases.

Date	Company	Size (USD million)	Sector	Coupon rate (%)	Rating	Tenor (Years)	Purpose
April 2021	ReNew Power	585	Solar and wind	4.50%	BB- (Fitch)	7.25	Refinancing of existing debt
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

107%

FAME-II target met

As of 1 November 2024

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

687

Number of EV OEMs in India

As of 1 November 2024

234

Total FAME II approved models

As of Q2 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 Q2 FY25

6.63%

2W sold were EV

58.08%

3W sold were EV

4,97,558

EVs sold

in Q2 FY25

25

States notified EV policies

As of Q2 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

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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

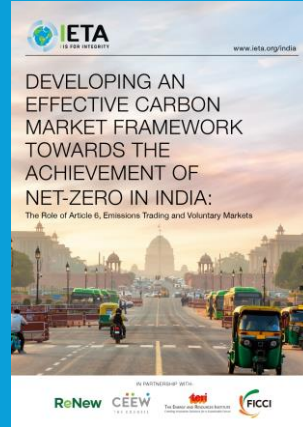
Design solutions

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

Our recent publications, dashboards and tools



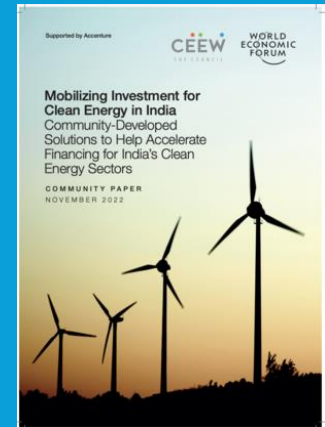
Climate Finance: A Developing Country Perspective



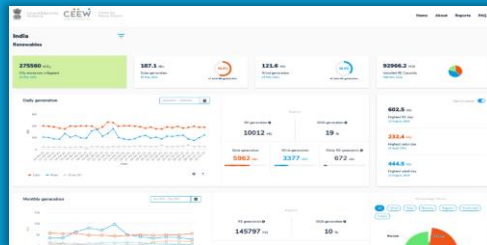
Developing An Effective Carbon Market Framework Towards The Achievement Of Net-Zero In India



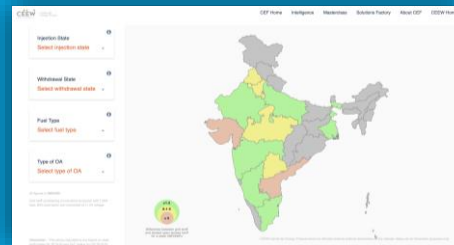
Greening India's Automotive Sector



Mobilizing Investment For Clean Energy In India



India Renewables Dashboard



Open Access Tool



Electric Mobility Dashboard