

Type of Issue	Issue size Rs. Bn
Fresh Issue	100
Offer for Sale	-
Total	100
Post issue mkt cap*	910
Lot size	138 shares

***At Upper Price Band**

Issue Break-Up	
Reservation for	% of Issue
QIB	75%
NIB	10%
Retail	15%
Total	100%

Indicative Offer Timeline	Indicative Date
Bid/Offer Opening Date	Nov 19, 2024
Bid/Offer Closing Date	Nov 22, 2024
Finalization of the Basis of Allotment	Nov 25, 2024
Credit of shares	Nov 26, 2024
Initiation of refunds	Nov 26, 2024
Listing Date	Nov 27, 2024

Use Of Proceeds	Rs. In mn
Investment in NTPC REL for payment of borrowings	75,000
General Corporate Purpose	

Lead Bankers	
Manager	IDBI Capital, HDFC Bank, IIFL Capital, Nuvama Wealth Management
Registrar	KFin Technologies

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Riding the Solar Energy adoption Wave...

Company Overview:

- NTPC Green is the wholly owned subsidiary for NTPC Ltd, a Maharatna CPSE. NTPC Group is a large scale integrated energy business with an electric power generating capacity of over 76 GW as of September 30, 2024.
- As a renewable energy arm of NTPC Group, their portfolio encompasses both solar and wind power assets and has presence across 6 states.
- As of September 30, 2024, their portfolio consisted of 16,896 MWs including 3,320 MWs of operating projects and 13,576 MWs of contracted and awarded projects. Of the total operational capacity, 3,220 MW pertains to solar projects and 100 MW of wind projects. Additionally, "Capacity under pipeline" consist of 9,175 MWs aggregating the total portfolio to 26,071 MWs.
- As on the date of RHP, 36 renewable energy projects are in the process of construction across 6 states consisting of 13,576 MWs of contracted and awarded projects.
- Renewable energy sale accounted for over 95% of their revenue from operations over FY22-H1FY25.
- They enters into long-term PPAs (generally 25 years) with offtakers majorly government backed entities. As of September 30, 2024, they had 17 offtakers, of which 9 are government agencies and public utilities.
- Land forms an integral part of project, as of September 30, 2024, NTPC Green owned ~8,900 acres of freehold land and ~45,700 acres of leashold land.
- In solar projects, they undertake diversified strategy for setting up power plants from using turnkey EPC contract model, to a model where they take responsibility for procurement of major equipment and supplies and the contractor builds, commissions and hands over the solar plant. For wind energy project, they generally incorporates EPC model.

Valuation and View: At an upper price band of Rs 108, NTPC Green is valued at an EV/EBITDA of 53.6x and EV/MW of 32x on FY24 basis. As of Sept 30, 2024, NTPC Green operational capacity stands at 3.3GW. The company aims to increase its operational capacity to 6GW/11GW/19GW by FY25E/26E/27E respectively, translating into a CAGR of 87% over FY24-27E basis. NTPC Group intends to expand its non-fossil-based capacity to 60 GW by 2032. This would result in company's valuation to be priced at an EV/MW of 15.6x/8.5x/4.9x on FY25E/26E/27E basis respectively. In place execution capabilities backed by strong parentage, industry growth tailwind and play in Battery Energy Storage System (BESS) augurs well for growth. However, the IPO is aggressively priced vs its listed peers which is trading at an EV/EBITDA of 38-40x. **We thereby assign "Subscribe for Long-Term" rating to the IPO.**

Shareholding Structure

Particulars	No. of Shares (in Bn)	% of Total Equity Capital	No. of shares (in Bn)	% of Total Equity Capital
	Pre-IPO		Post-IPO	
Promoter	7,500,000	100.0%	7,500,000	89.0%
Public	-	0.0%	925,926	11.0%
Total	7,500,000	100.0%	8,425,926	100.0%

*At upper price band

Issue Structure

(Rs. Mn)	Floor	Cap
Net Offer	100,000	100,000
QIB Portion (75% of Offer)	75,000	75,000
Non Institutional portion (15% of Offer)	15,000	15,000
Retail portion (35% of Offer)	10,000	10,000

Key Financial Summary

(Rs. Mn)	FY22*	FY23*	FY24
Revenue	9,104	14,497	19,626
EBITDA	7,949	13,096	17,465
EBITDA margin	87.3%	90.3%	89.0%
Adj. PAT	947	4,565	3,477
Adj. PAT margin	10.4%	31.5%	17.6%

*Special Purpose Carved Out

Key Risks

- **Concentration risk:** Top 5 offtakers contributes over 87% of its FY24 revenue from operations with top offtaker contributing ~50% of their revenue from operations in FY24. If any of these offtakers faces financial difficulties or discontinue or terminate its PPA contract with the company, it could adversely affect results of operations and financial conditions.
- **Raw Material Risk:** The company is dependent on third party suppliers for meeting our materials, component and equipment requirements. Top 10 suppliers accounted for 92.65% and 77.71% of their supplies in the H1FY25 and in Fiscal 2024, respectively. Any disruption to the timely and adequate supply, or volatility in the prices of required materials, components and equipment may adversely impact their business, results of operations and financial condition.
- **Cost Overruns:** The business may be subject to cost overruns or delays on account of delay of materials from suppliers, political change and strike or shortage of laborer to carry out execution. This could lead to liquidation of performance Bank guarantees offered by the company. If invoked, it could adversely affect their results of operations.
- **Geographic risk:** As of Sept' 2024 and in Fiscal 2024, 62.20% and 61.74%, respectively, of their operating renewable energy projects are concentrated in Rajasthan. Any significant social, political, economic or seasonal disruption, natural calamities or civil disruptions in Rajasthan could have an adverse effect on their business, results of operations and financial condition.

Strengths:

- **Strong parentage of NTPC Ltd:** NTPC's , a CPSU, has a legacy of 5 decades in India's power generation and distribution industry. This translates into extensive experience in executing large- scale projects, long-term relationships with offtakers and suppliers and financial strength for NTPC Green. *NTPC Group is looking to expand its non-fossil based capacity to 45-50% of its portfolio that will include 60 GW renewable energy capacity by 2032.* India's goal of achieving 50% of cumulative electric power installed capacity from non-fossil based energy source by 2030, means NTPC Group is committed to NTPC Green long term success as its sustainability arm and partner. NTPC Ltd has contributed Rs 75,000 million to the company by way of equity contributions since inception.
- **Portfolio of 16,896 MWs solar and wind projects:** As of September 30, 2024, their portfolio consisted of 16,896 MWs including 3,320 MWs operating projects and 13,576 MWs projects contracted and awarded. These projects are spread across 7 states in India mitigating the concentration risk. Additionally, their capacity under pipeline consisted of 9,175 MWs. This coupled with contracted and awarded projects of 13,576 MWs highlights their large portfolio of utility-scale solar energy projects and wind energy projects for PSUs and Indian corporates. They are considered a partner of choice by many PSUs for fulfillment of their renewable energy development goals.
- **Experienced team in renewable energy project Execution and Procurement:** For execution, the company is backed by NTPC Group which has a strong track record of developing, constructing and operating renewable power projects. Procurement involves purchase of major components such as solar panels, inverters, wind turbines and some components of power evacuation systems directly from domestic and international manufacturers. Their inhouse procurement team selects suppliers based on expected cost, reliability, commercial conditions, manufacturing capacity, track record, quality, warranty coverage, ease of installation and other ancillary costs.
- **Experienced Management Team:** NTPC Green's senior management team comes with loads of experience In India power industry. The senior management team has played an instrumental role in solidifying relationships with offtaker as well as relationship with regulators. Management team's guidance to understand and anticipate market trends, will act as a catalyst to manage their business operations and growth.

Strategies:

- **Continue to grow Project pipeline:** The demand and market for renewable energy is growing. The company thereby intends to strengthen its position by continuing to win bids and tenders of Central and State government agencies and state public utilities. In particular, they aim to focus on qiqawatt scale projects. They intend to grow its portfolio through prudent bidding and strategic JV with PSUs and private corporates. They have signed joint venture agreements with Rajasthan Rajya Vidyut Utpadan Nigam Limited (RRVUNL), Mahatma Phule Renewable Energy & Infrastructure Technology Limited MAHAPREIT), Damodar Valley Corporation (DVC) and two other PSUs and have signed MOUs or term sheets with other private corporates.
- **Focus on projects in new energy solutions like green hydrogen, green chemicals and storage:** They are investing in hydrogen, green chemical and battery storage capabilities and solutions as well as associated technologies. For green hydrogen and green chemicals, they are developing green hydrogen hub at Pudimadaka and finalizing a tie-up for electrolysers. For battery storage, they intend to install the Grid scale battery storage as part of Firm and Dispatchable Renewable Energy (**FDRE**)/Round-the-Clock (**RTC**) projects to complement the solar and wind power. This also enable them to participate in standalone Grid scale battery energy storage system service tenders floated in the market for various DISCOMS or Grid balancing. Further, they are in process to install Battery Energy Storage System (BESS) at a NTPC Thermal plant to smooth the flexibilization on pilot basis. They are presently developing 2.7 GW of RTC renewable energy capacity, which also includes one of the world's largest RTC renewable energy projects of 1.3 GW.
- **Drive efficiency and cost reductions in project execution and operating & maintenance:** They seek to further enhance their project execution efforts in order to control costs and optimize the output of projects. To reduce project costs per megawatt operating they intend to implement new technologies viz new turbines, solar modules, which are capable of higher generation levels. They are also incorporating robotic cleaning storage technologies to reduce auxiliary power consumption, using artificial intelligence ("AI") enabled tools for forecasting and scheduling, utilizing drones and new maintenance technologies as part of enhanced project monitoring and O&M efforts.

Revenue from Top x Off-Takers

Particulars	FY22		FY23		FY24	
	Amount (Rs Mn)	% of Revenue from Operations	Amount (Rs Mn)	% of Revenue from Operations	Amount (Rs Mn)	% of Revenue from Operations
Top 1 off-taker	185	2.0%	4,613	31.8%	9,755	49.7%
Top 5 off-takers	7,808	85.8%	12,430	85.8%	17,320	87.8%
Top 9 off-takers	8,899	97.8%	14,286	98.5%	19,161	97.6%

Capacity Bidding

Particulars	FY22	FY23	FY24
Capacity of bids auctioned (in MW)	18,000	12,000	49,000
Capacity of bids participated in (in MW)	10,735	5,250	21,325
Quoted capacity (in MW)	6,090	2,255	8,900
Allotted capacity (in MW)	3,265	1,190	3,455
Percentage of bids won against capacity of total bids	53.6%	52.8%	38.8%

PHS and BESS Comparison

	PHS	BESS
Capital cost	Total capital cost for a closed loop PHS	Lithium-ion battery storage can range
Efficiency	75-80%	80-85%
Land requirement	~2,000 m ² /MW	~100 m ² /MW
Ideal storage duration	6 – 12 hours	Upto 4 hours
Response time	30-90 seconds	In milliseconds
Project life	40 – 50 years (life of dam/reservoir is over	10-12 years
Construction period	4 – 5 years, it also depends upon other ex-	1 year
Operating cost	Lower	Higher since batteries need to be re-
Estimated levelized tariff	Rs 4 – 6 per kWh	Rs 5 – 7 per kWh

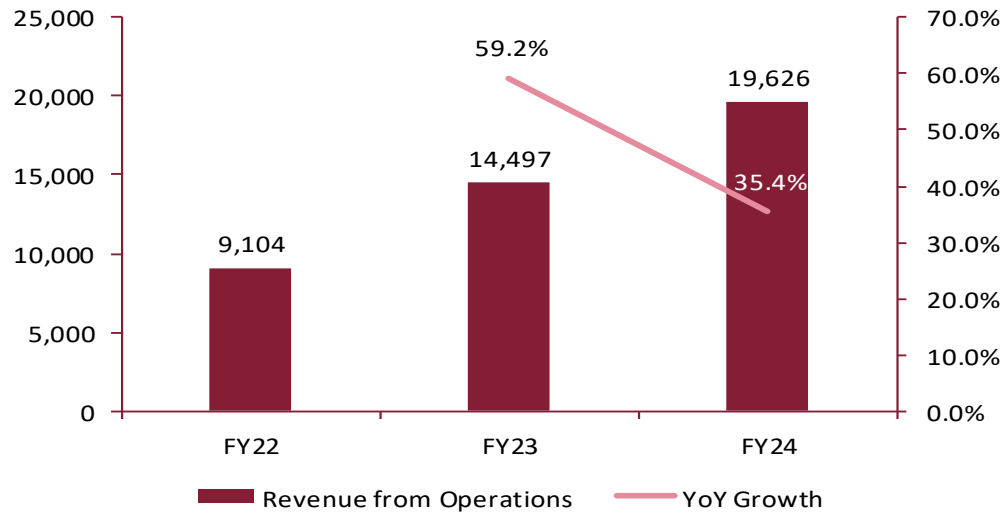
NTPC Green Energy Ltd vs Peers

Parameter		NTPC GEL	Adani Green Energy	Renew	Greenko	ACME Solar Holdings	JSW Neo	TATA Power REL
Promoter/Group		NTPC	Adani Group	Renew Group	Greenko Group	ACME Group	JSW	TATA Power
Operational capacity (GW)	Solar	3.3	7.4	4.0	2.2	1.3	0.7	3.7
	Wind	0.2	1.7	4.3	3.2	0.0	2.0	1.0
	Others		2.1	0.0	0.0	0.0	0.0	0.0
Under construction/ Pipeline (GW)	Solar	UC: 8.1 Pipeline: 10.6	16.8	3.3	1.0	1.8	3.2	1.0
	Wind		2.4	1.8	0.4	0.2	1.7	0.0
	Others		2.7	0.0	0.0	2.1	2.3	4.5

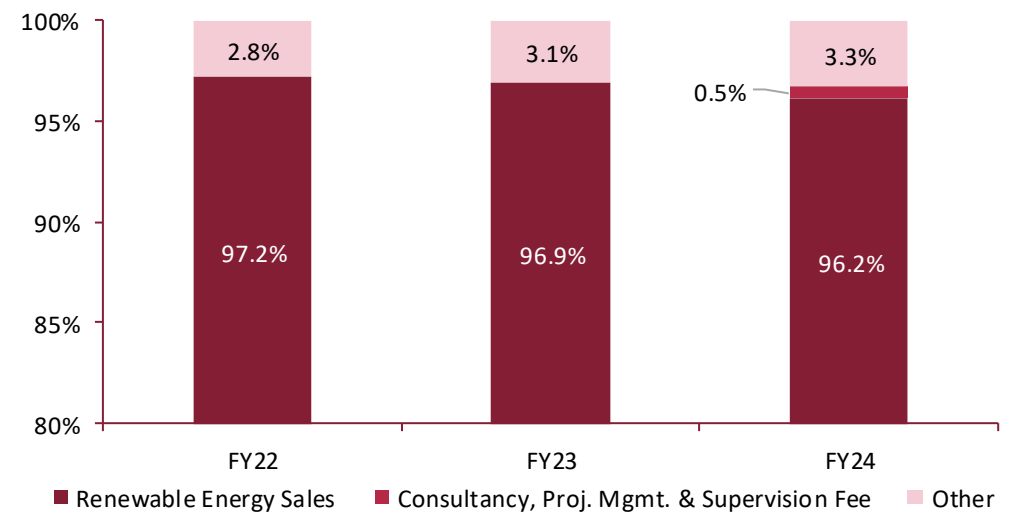
Particulars	NTPC RE* Group		NTPC GEL	ReNew			Adani Green		
	FY22(A)	FY23(A)	FY24 (A)	FY22(A)	FY23(A)	FY24 (A)	FY22(A)	FY23(A)	FY24 (A)
Installed Capacity (MW)									
Solar	1,395	2,561	2,825	3,690	3,970	4,500	NA	4,975	7,393
Wind	50	50	100	3,780	3,910	4,600	NA	971	1,401
Hybrid	0	0	0	NA	NA	NA	NA	2,140	2,140
Total	1,445	2,611	2,925	7,470	7,880	9,100	5,410	8,086	10,934
Generation (MUs)									
Solar	1,864	3,759	5,591	8,469	8,112	8,794	8,097	10,457	11,046
Wind	104	103	122	5,677	9,002	10,243	1,329	1,820	3,117
Hybrid	0	0	0	NA	NA	NA	0	2,603	7,643
Average CUF (%)									
Solar	19.2%	22.7%	24.0%	23.1%	24.8%	24.4%	23.8%	24.7%	24.5%
Wind	23.7%	23.6%	19.8%	25.4%	25.5%	26.4%	30.8%	25.2%	29.4%
Hybrid	0.0%	0.0%	0.0%	NA	NA	NA	NA	35.5%	40.7%

NTPC Green Energy Ltd

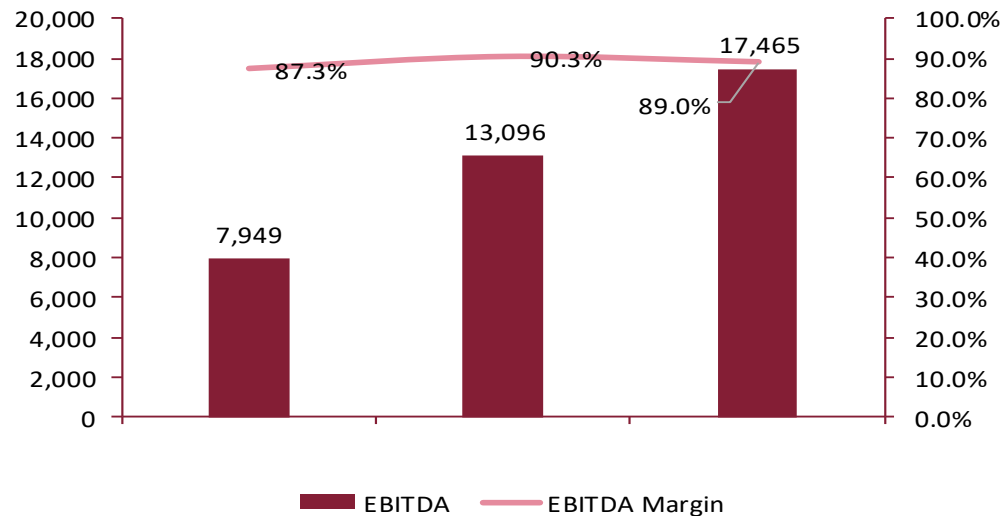
Revenue (Rs In Mn)



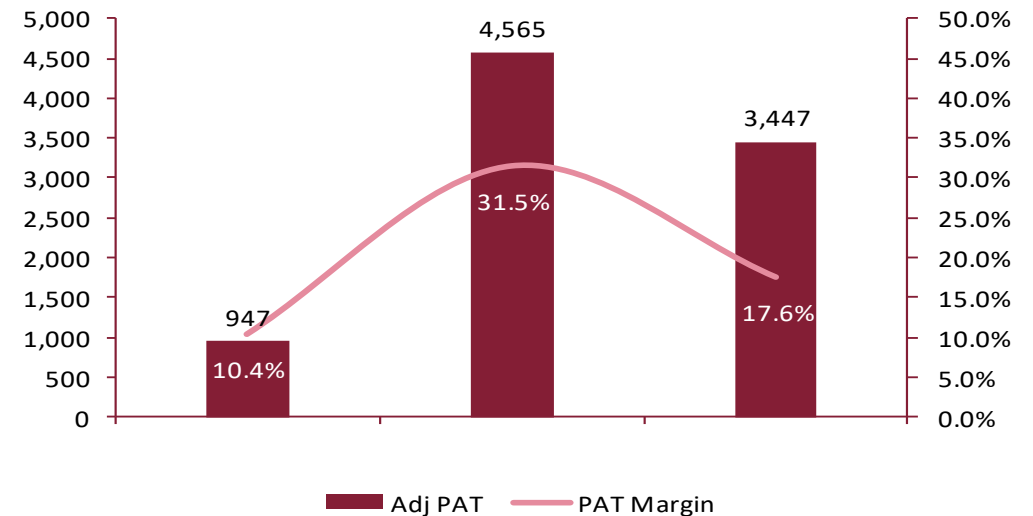
Segment wise Revenue



EBITDA & EBITDA Margin (Rs In Mn)

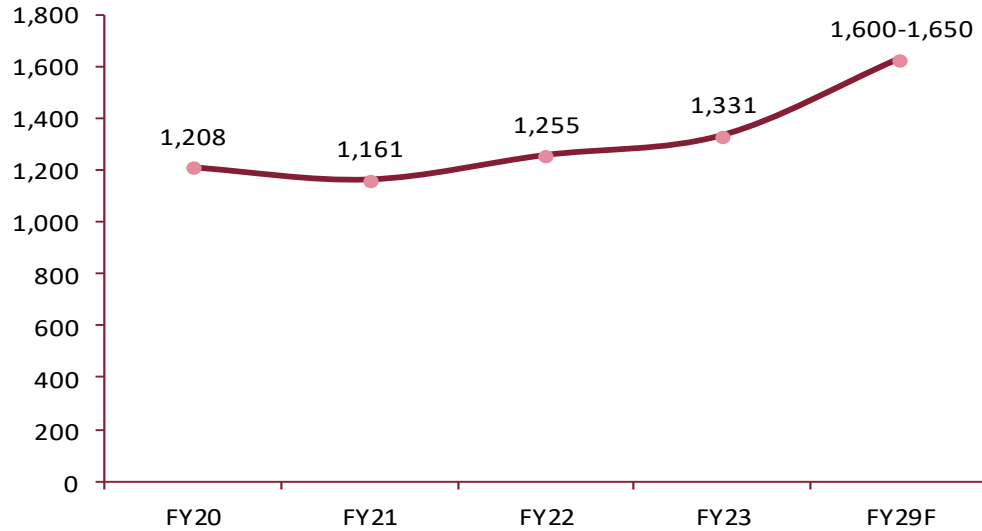


Adjusted PAT and PAT Margin (Rs In Mn)

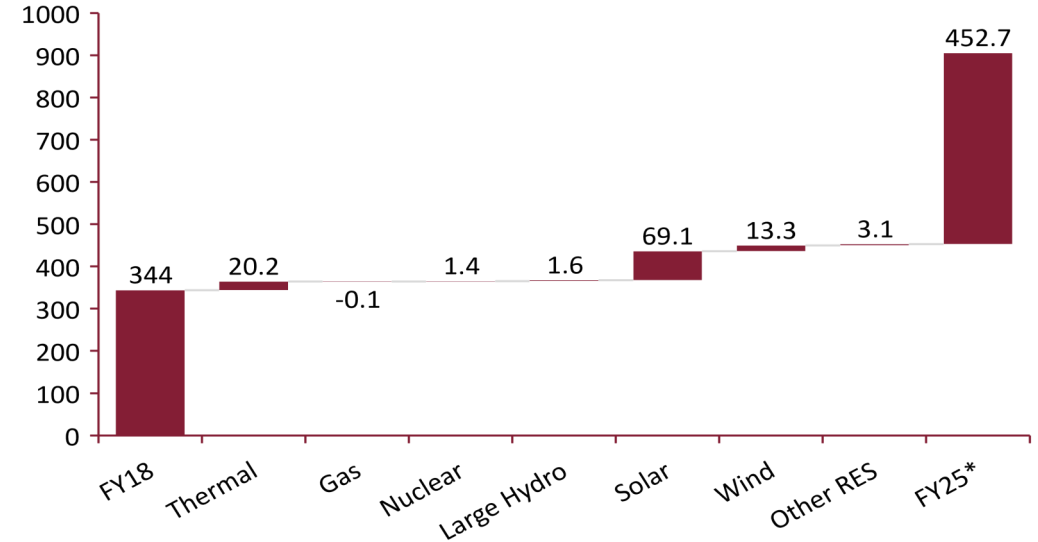


Industry Overview

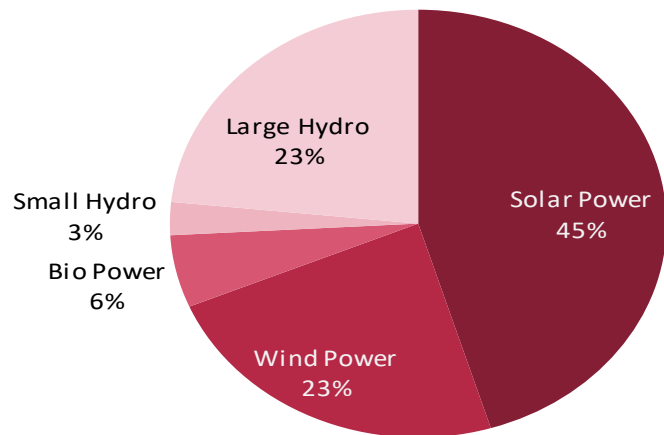
India per Capita Electricity Consumption (in kWh)



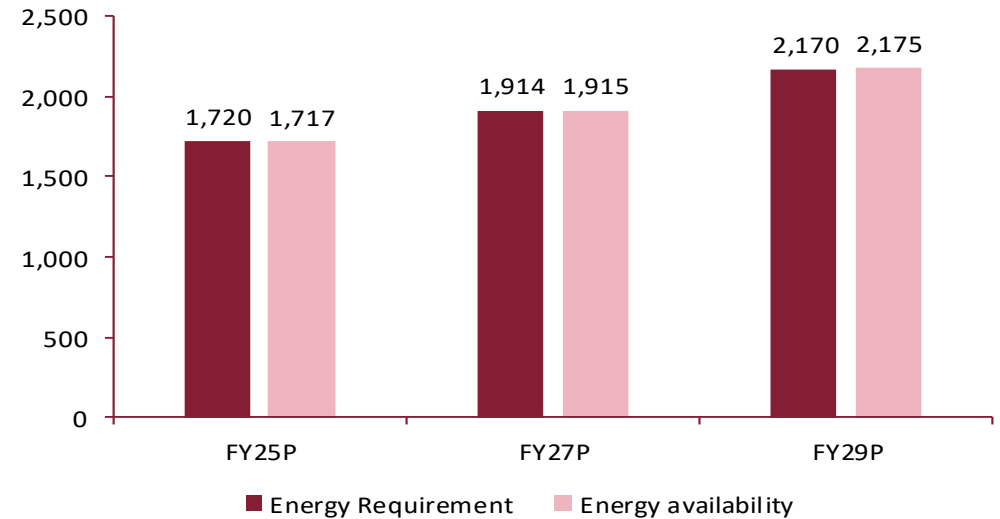
India Annual capacity additions and installed capacity (GW)



India Installed Renewable Energy Capacity (201 GW)

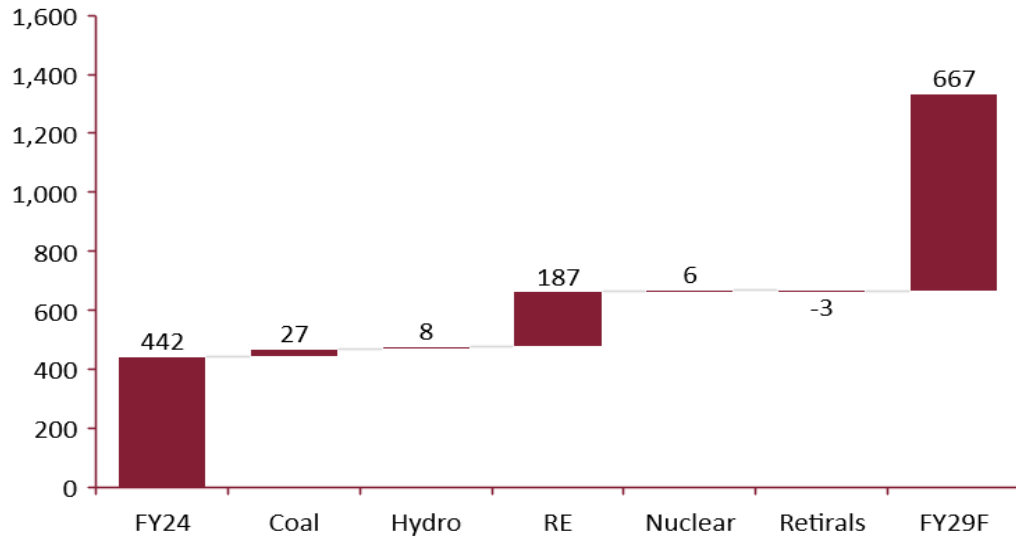


India Energy demand outlook (FY2025P-29P)

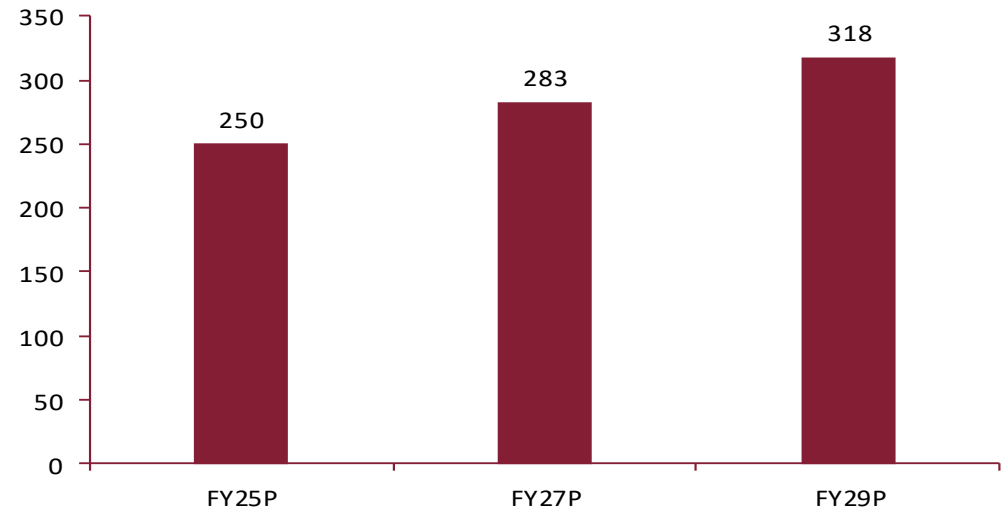


Industry Overview

India Installed Estimated Capacity Addition (in GW)

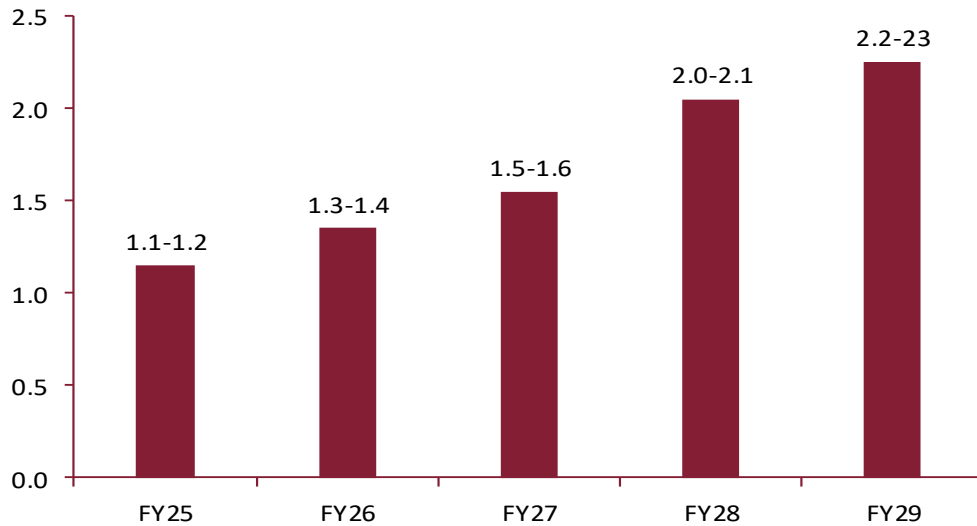


India Peak Demand Projection (GW)

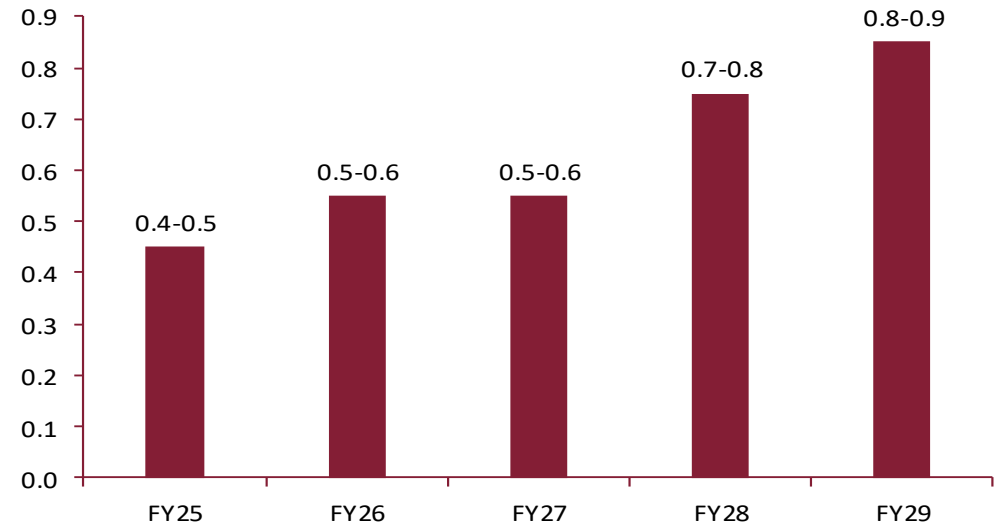


Industry Overview

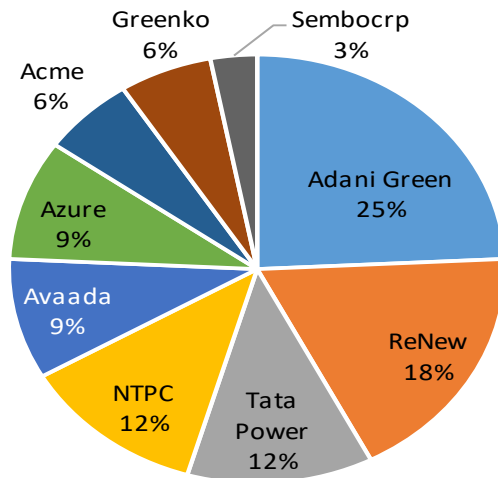
Expected Investments in the Solar Energy Generation Sector in India



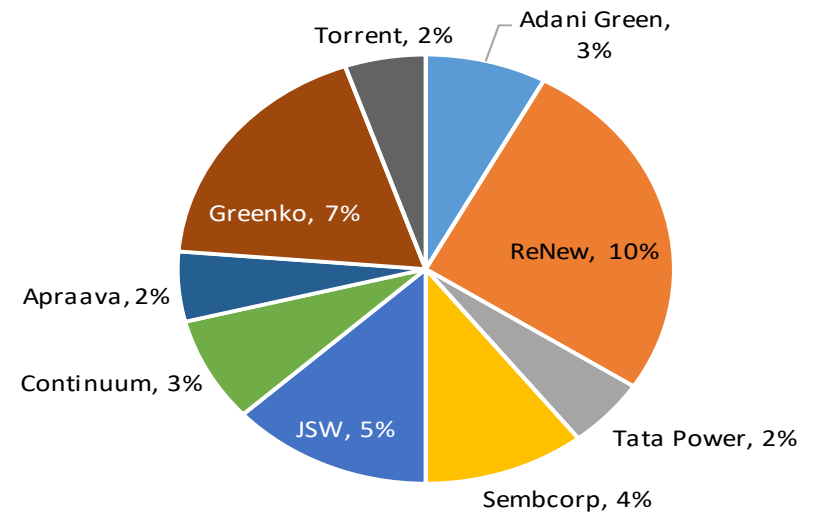
Expected Investments in the Wind Energy Generation Sector in India



Key Players in Solar Energy and their Installed Capacity in India (90,762 MW)



Key Players in Wind Energy and their Installed Capacity in India (47,363 MW)



INDSEC Rating Distribution

BUY : Expected total return of over 15% within the next 12-18 months.

HOLD : Expected total return between 0% to 15% within the next 12-18 months.

SELL : Expected total return is negative within the next 12-18 months.

NEUTRAL: No investment opinion, stock under review.

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DISCLOSURE

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