



NTPC Green Energy Limited

NTPC Green Energy Ltd.

Issue Opens On Nov 19, 2024	Issue Closes On Nov 22, 2024	Price Band (INR) 102 - 108	Issue Size (INR Mn) 1,00,000	Rating SUBSCRIBE
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NTPC Green Energy Limited (NGEL), founded in April 2022 as a wholly owned subsidiary of NTPC Limited, is a significant player in India's renewable energy landscape. Leveraging the strength and credibility of NTPC Limited—a 'Maharatna' public sector enterprise under the Ministry of Power, Government of India—NGEL has swiftly grown to become one of India's largest renewable energy companies by operational capacity, excluding hydro. As of September 2024, NGEL manages an impressive portfolio of 3,220 MW in solar power and 100 MW in wind power across six states, catering primarily to public sector undertakings and corporate clients. With its focus on large-scale renewable projects, NGEL plays a vital role in advancing India's clean energy transition and reinforcing the country's commitment to sustainable development.

OFFER STRUCTURE

Particulars	IPO Details
No. of shares under IPO (Mn)	925.93
Fresh issue (# shares) (Mn)	925.93
Offer for sale (# shares) (Mn)	NA
Price band (INR)	102 - 108
Post issue MCAP (INR Mn)	8,65,000 - 9,10,000

Source: IPO Prospectus

Indicative Timetable	
Offer Closing Date	Friday 22 nd Nov'24
Finalization of Basis of Allotment with Stock Exchange	On or about 25 th Nov' 24
Initiation of Refunds	On or about 26 th Nov' 24
Credit of Equity Shares to Demat accounts	On or about 26 th Nov' 24
Commencement of Trading of Eq. shares on NSE	On or about 27 th Nov' 24

Source: IPO Prospectus

Issue	# Shares	INR Mn	%
QIB	69,44,44,444	Min. 75,000	Not less 75%
NIB	13,88,88,889	Max. 15,000	Not more than 15%
Retail	9,25,92,593	Max. 10,000	Not more than 10%
Net Offer	92,59,25,926	1,00,000	100%

Source: IPO Prospectus

Objects of the Offer	
1. Investment in subsidiaries, NREL for the repayment or prepayment of certain outstanding borrowings.	75,000
2. General corporate purposes	25,000

Shareholding Pattern	Pre-Issue (%)	Post-Issue (%)
Promoters & Promoters Group	100%	89%
Others	0%	11%
Total	100%	100%

Source: IPO Prospectus

Particulars (INR Mn)	Special Purpose Carved-Out Combined Statements*		Restated Consolidated Statements	
	FY22	FY23	FY23	FY24
Revenue	9,104	14,497	1,697	19,626
EBITDA	7,949	13,096	1,514	17,465
EBITDA Margin (%)	87%	90%	89%	89%
Profit After Tax	947	4565	1712	3447
PAT Margin (%)	10%	31%	101%	18%
Net Worth	19,515	48,875	48,875	62,322
RONW (%)	5%	9%	4%	6%

*Special Purpose Carved-out Combined Statements as at March 31, 2022 is based on the carved-out consolidated operating data (part of the standalone financial statements of NTPC Limited until February 28, 2023) pertaining to RE Assets of NTPC Limited, NREL and NGEL as at March 31, 2022. This Carved-out Operating Data is not NGEL's operating data under the leadership of its current management and board

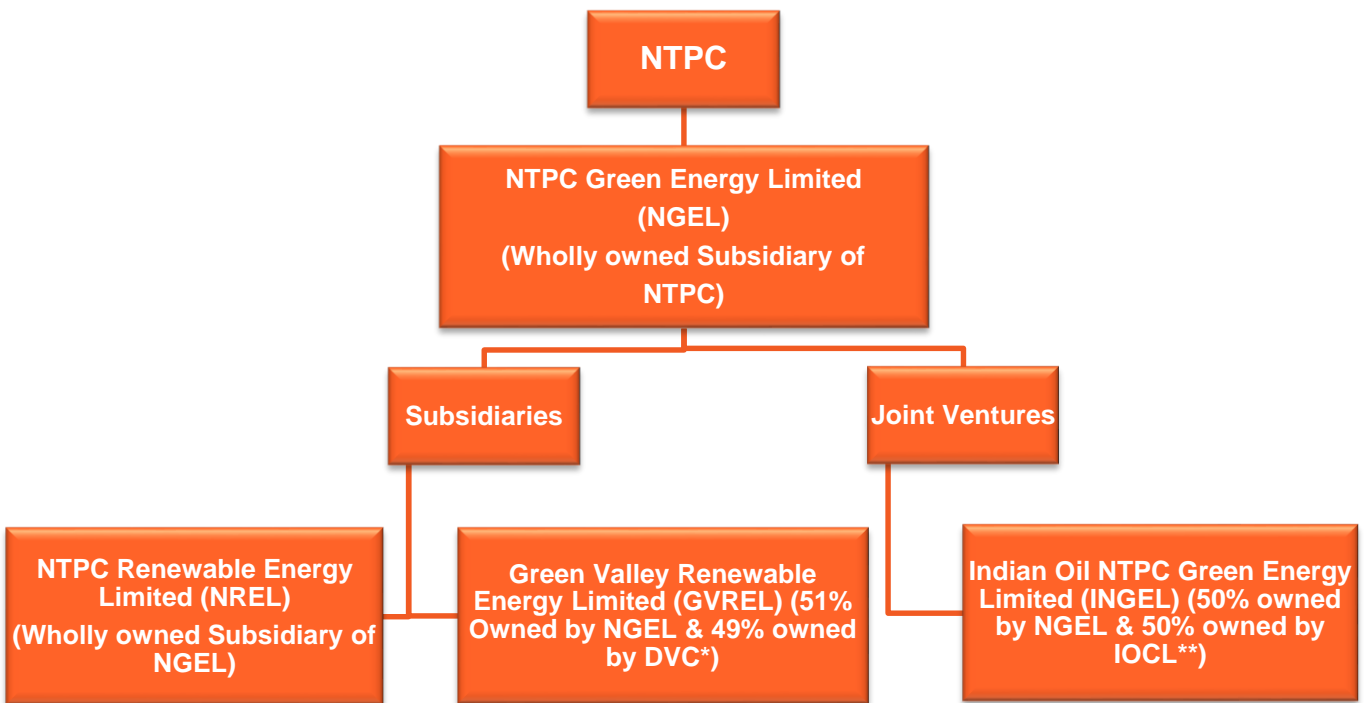
Source: IPO Prospectus, DevenChoksey Research

NTPC Green Energy Ltd.

Company Overview :

- NTPC Green Energy Limited (NGEL) is a wholly owned subsidiary of NTPC Limited, a prominent Indian power utility company with a focus on sustainable energy.
- Established in April 2022, NGEL has become a leading public sector enterprise in renewable energy, specifically in solar and wind power, making it one of the largest renewable energy companies in India by operating capacity, excluding hydro.
- As of September 2024, NGEL operates solar projects with a capacity of 3,220 MW and wind projects totaling 100 MW across six states in India, with a strategic emphasis on utility-scale renewable energy projects for public sector undertakings (PSUs) and corporate entities.
- NTPC Green Energy Limited (NGEL) recorded a revenue of INR 19,626 million in FY24, a significant increase from INR 1,697 million in FY23.

Exhibit 1: Corporate Structure



*DVC: Damodar Valley Corporation

** IOCL: Indian Oil Corporation Limited

Source: IPO Prospectus, DevenChoksey Research

NTPC Green Energy Ltd.

Company Overview:

Business Model

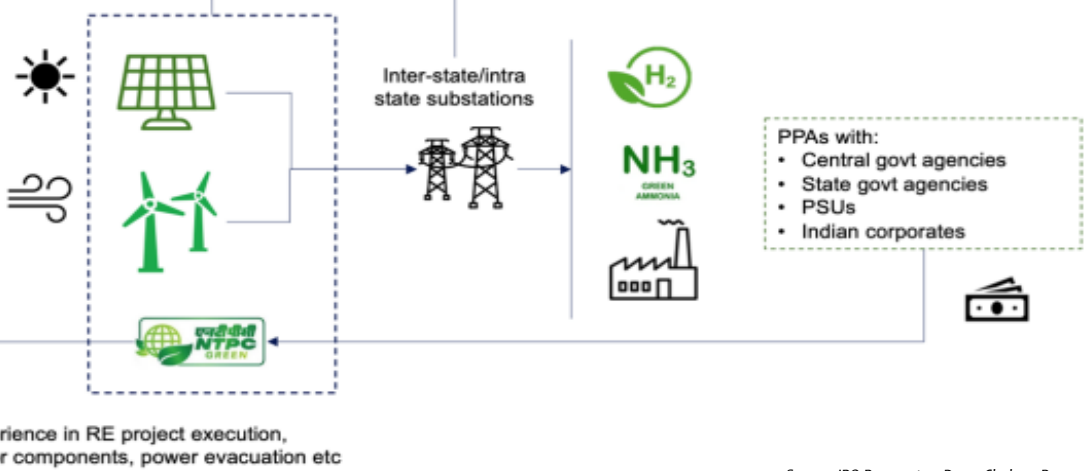
- NGEL’s business model centers on generating clean, renewable energy primarily through solar and wind installations. The company ensures stable revenue streams by entering into long-term **Power Purchase Agreements (PPAs)** and **Letters of Award (LoAs)** with government agencies and state utilities.
- This strategy not only supports India’s ambitious renewable energy goals but also aligns with NGEL’s mission to drive growth in the renewable energy sector.
- By securing long-term contracts, NGEL mitigates revenue volatility and strengthens its position as a trusted renewable energy provider.

Models for power plant development.

Models for setting up power plants -

1. Turnkey EPC contract model (contractor is responsible from concept through commissioning)
2. NGEL take responsibility for procurement of major equipment and supplies and the contractor builds, commissions and hands over the plant

The availability of transmission infrastructure for interconnection to common grid is critical for project’s viability



Source: IPO Prospectus, DevenChoksey Research

Exhibit 2: Revenue Segmentation

Particulars	Special Purpose Carved-Out Combined Financial Statements				Restated Consolidated Financial Information	
	FY22 (INR Mn)	%	FY23 (INR Mn)	%	FY24 (INR Mn)	%
Renewable Energy Sales						
Solar	8,448	93%	13,652	94%	18,404	94%
Wind	401	4%	401	3%	471	2%
Consultancy, project management, and supervision fee	0	0%	0	0%	100	1%
Other operating revenues recognized from Government Grants	256	3%	444	3%	651	3%
Total Revenue from operations	9,104	100%	14,497	100%	19,626	100%

Source: IPO Prospectus, DevenChoksey Research

NTPC Green Energy Ltd.

Company Overview:

Portfolio of Renewable Assets

NGEL's portfolio extends across six states, which helps mitigate location-specific generation risks. The company's portfolio includes:

- **Operating Capacity:** 3,320 MW, comprising 3,220 MW of solar power and 100 MW of wind power.
- **Contracted & Awarded Capacity:** Approximately 13,576 MW as of September 30, 2024, consisting of projects secured through various auctions and tenders.
- **Pipeline Capacity:** Around 9,175 MW of potential projects in collaboration with joint venture partners, reflecting NGEL's strategic focus on expanding its renewable footprint.

Exhibit 3: Operating, Contracted & Awarded Megawatts Data

Particulars	Carved-out Operating Data		Company Operating Data	
	FY22	FY23	FY23	FY24
Megawatts Operating				
Solar (MWs)	1,395	2,561		2,825
Wind (MWs)	50	50		100
Total (MWs)	1,445	2,611		2,925
Megawatts Contracted & Awarded				
Solar (MWs)	4,616	5,750		9,571
Wind (MWs)	150	500		2,000
Total (MWs)	4,766	6,250		11,571
Megawatts Operating, Contracted & Awarded				
Solar (MWs)	6,011	8,311		12,396
Wind (MWs)	200	550		2,100
Total (MWs)	6,211	8,861		14,496

Source: IPO Prospectus, DevenChoksey Research

NTPC Green Energy Ltd.

Company Overview:

Strategic Projects and Geographical Footprint

1. Solar Energy Projects

NGEL operates several utility-scale solar power plants across states such as Rajasthan, Uttar Pradesh and Andhra Pradesh. Key projects include large installations in Bhadla (Rajasthan) and Bilhaur (Uttar Pradesh), which are designed to provide long-term, grid-connected renewable energy. With an installed solar capacity of over 3 GW, NGEL's solar projects play a crucial role in achieving India's renewable energy targets.

2. Wind Energy Projects

NGEL has also invested in wind energy, with installations in regions like Gujarat and Karnataka. These wind projects contribute to NGEL's goal of creating a balanced renewable energy portfolio. Wind capacity, although smaller compared to solar, is steadily expanding, further diversifying NGEL's clean energy mix.

3. Emerging Green Technologies

In addition to traditional renewable sources, NGEL is actively pursuing opportunities in green hydrogen production, energy storage, and green chemicals. The company has initiated a green hydrogen hub at Pudimadaka, Andhra Pradesh, and is exploring partnerships for battery storage projects to support grid stability. These initiatives demonstrate NGEL's commitment to innovation in clean energy.

Project Pipeline and Joint Ventures

NGEL's growth strategy includes developing a mix of standalone and joint venture projects. The company collaborates with prominent PSUs like Damodar Valley Corporation (DVC) and Indian Oil Corporation for key renewable projects. These joint ventures expand NGEL's reach in the renewable sector, with projects such as solar parks and wind farms in partnership with public sector entities. Through these strategic partnerships, NGEL leverages shared expertise and resources to scale up its renewable energy capabilities.

Exhibit 4: Pipeline and Joint Ventures

Joint Venture Partner(s)/Bilateral Party	Type of Proposed Project	Project Capacity (MW)	Location	Agreement Signed	Status of Project	JV Term
Bilateral Party	Solar	2,000	To be decided	28-03-2023	Pipeline	Bilateral Agreement
Damodar Valley Corporation	Solar	445	Jharkhand	29-03-2022	Pipeline	25 Years
Joint Venture	Solar	2,500	Maharashtra	28-02-2024	Pipeline	To be decided
Joint Venture	Solar	1,980	Uttar Pradesh	04-03-2024	Pipeline	To be decided
Bilateral Party	Wind	2,250	To be decided	28-03-2023	Pipeline	Bilateral Agreement
Total		9,175				

Source: IPO Prospectus, DevenChoksey Research

NTPC Green Energy Ltd.
Company Overview:
Operating Capacity by State
Exhibit 5: Megawatts Operating by State:

Particulars	Carved-out Operating Data				Company Operating Data	
	FY22		FY23		FY24	
	MWs	%	MWs	%	MWs	%
Madhya Pradesh						
Solar	300	20.77%	300	11.49%	300	10.26%
Wind	0	0.00%	0	0.00%	0	0.00%
Andhra Pradesh						
Solar	250	17.30%	250	9.57%	250	8.55%
Wind	0	0.00%	0	0.00%	0	0.00%
Rajasthan						
Solar	620	42.89%	1,556	59.59%	1,806	61.74%
Wind	0	0.00%	0	0.00%	0	0.00%
Uttar Pradesh						
Solar	225	15.57%	225	8.62%	239	8.17%
Wind	0	0.00%	0	0.00%	0	0.00%
Gujarat						
Solar	0	0.00%	0	0.00%	0	0.00%
Wind	50	3.46%	50	1.91%	100	3.42%
Tamil Nadu						
Solar	0	0.00%	230	8.81%	230	7.86%
Wind	0	0.00%	0	0.00%	0	0.00%
Total MW Operating	1,445		2,611		2,925	

Exhibit 6: Megawatts Operating, Contracted and Awarded by State

Particulars	Carved-out Operating Data				Company Operating Data	
	FY22		FY23		FY24	
	MWs	%	MWs	%	MWs	%
Madhya Pradesh						
Solar	625	10.06%	625	7.05%	625	4.31%
Wind	0	0.00%	0	0.00%	0	0.00%
Andhra Pradesh						
Solar	250	4.03%	250	2.82%	250	1.72%
Wind	0	0.00%	0	0.00%	0	0.00%
Rajasthan						
Solar	2,776	44.69%	2,776	31.33%	5,036	34.74%
Wind	0	0.00%	0	0.00%	0	0.00%
Uttar Pradesh						
Solar	225	3.62%	225	2.54%	265	1.83%
Wind	0	0.00%	0	0.00%	0	0.00%
Gujarat						
Solar	1,905	30.67%	4,205	47.46%	5,680	39.18%
Wind	200	3.22%	550	6.21%	1,274	8.79%
Tamil Nadu						
Solar	230	3.70%	230	2.60%	230	1.59%
Wind	0	0.00%	0	0.00%	0	0.00%
Karnataka						
Solar	0	0.00%	0	0.00%	0	0.00%
Wind	0	0.00%	0	0.00%	826	5.70%
West Bengal						
Solar	0	0.00%	0	0.00%	75	0.52%
Wind	0	0.00%	0	0.00%	0	0.00%
Jharkhand						
Solar	0	0.00%	0	0.00%	235	1.62%
Wind	0	0.00%	0	0.00%	0	0.00%
Total MW operating contracted and awarded	6,211		8,861		14,496	

Source: IPO Prospectus, DevenChoksey Research

NTPC Green Energy Ltd.

Company Overview:

Offtaker Customers

As of September 30, 2024, the company had 17 offtakers involved in 41 solar projects and 11 wind projects. Offtakers are defined as entities with which the company has megawatts that are either operating, contracted or awarded (through signed PPAs or received LoAs). As of this date, these offtakers comprised government agencies and public utilities.

Exhibit 7: Offtaker Customers:

Particulars	Carved-out Operating Data				Company Operating Data	
	FY22		FY23		FY24	
	MWs	%	MWs	%	MWs	%
Central Government agencies/entities (SECI/PTC)	1,580	25.44%	2,230	25.17%	2,780	19.18%
State Government agencies/entities						
Gujarat Urja Vikas Nigam Ltd	400	6.44%	400	4.51%	1,325	9.14%
Offtaker	50	0.81%	50	0.56%	50	0.34%
Offtaker	260	4.19%	260	2.93%	260	1.79%
Telangana Discoms	1,926	31.01%	1,926	21.74%	1,926	13.29%
Uttar Pradesh Power Corporation Limited	225	3.62%	225	2.54%	265	1.83%
Offtaker	750	12.08%	750	8.46%	750	5.17%
Offtaker	320	5.15%	320	3.61%	320	2.21%
Offtaker	250	4.03%	250	2.82%	250	1.72%
Offtaker	325	5.23%	325	3.67%	325	2.24%
PSU Customers	100	1.61%	2,100	23.70%	6,220	42.91%
Other agencies/entities	25	0.40%	25	0.28%	25	0.17%
Total Megawatts Operating, Contracted and Awarded	6,211	100.00%	8,861	100.00%	14,496	100.00%

*The disclosure of names has only been made for such offtakers who have provided consent to being named in the RHP

Source: IPO Prospectus, DevenChoksey Research

NTPC Green Energy Ltd.

Company Overview:

Exhibit 8: Customer Base

Particulars	Special Purpose Carved-Out Combined Financial Statements				Restated Consolidated Financial Information	
	FY22		FY23		FY24	
	INR Mn	%	INR Mn	%	INR Mn	%
Revenue from Largest Offtaker	2,228	24.47%	4,613	31.82%	9,755	49.71%
Revenue from Top 5 Offtakers	8,193	89.99%	12,430	85.74%	17,230	87.79%
Revenue from Top 9 Offtakers	8,899	97.75%	14,286	98.54%	19,161	97.63%

Source: IPO Prospectus, DevenChoksey Research

Suppliers

The operating equipment for solar energy projects includes solar panels, inverters, cables, mounting structures, trackers, transmission lines and power evacuation systems. For wind energy projects, it primarily comprises wind turbines and power evacuation components. The company sources major components like solar panels, inverters, wind turbines and power evacuation system parts from a diverse network of domestic and international manufacturers, supported by a well-established base of reputable vendors in India and abroad.

Exhibit 9: Suppliers Base of NGEL

Suppliers	FY24	
	INR Mn	% cost of supplies
Largest Supplier	13,968	20%
Top 10 Suppliers	55,408	78%
Top 20 Suppliers	57,677	81%

Source: IPO Prospectus, DevenChoksey Research

Exhibit 10: Geographical Mix of Supplies

Particulars	FY24	
	INR Mn	% cost of supplies
India	57,422	82%
Outside India		
China	12,717	18%
Total Outside India	12,717	18%
Total	70,139	100%

Source: IPO Prospectus, DevenChoksey Research

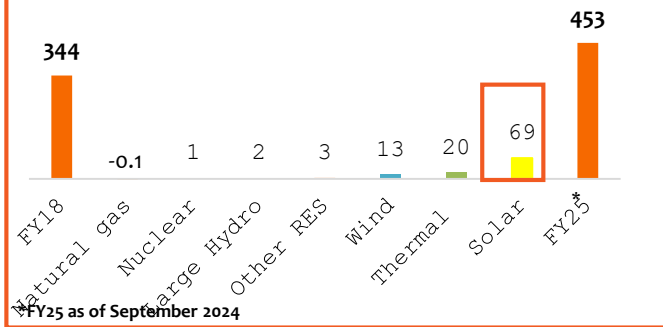
NTPC Green Energy Ltd.

Industry Overview:

Over the past decade, India has seen strong growth in power generation capacity, driven by the Electricity Act of 2003, which de-licensed the sector and a strong government push towards renewable energy (RE). Policies supporting RE, such as competitive bidding, green energy corridors and ambitious renewable targets, have attracted significant investment and accelerated capacity additions. This has positioned India as a global leader in renewable energy while advancing its energy security and climate goals.

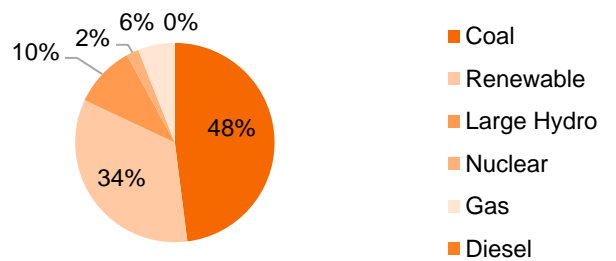
Review of installed capacity and fuel mix

Exhibit 11: India Annual capacity additions and installed capacity (GW)



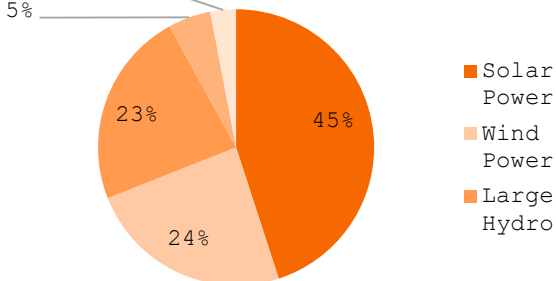
- ❑ The total installed generation capacity as of September 2024 was ~453 GW, of which ~109 GW of capacity was added over FYs 2018-25.
- ❑ The overall installed generation capacity has grown at a CAGR of ~5.0% over the same period

Exhibit 12: India installed capacity of 453 GW as of Sept '24 (% share)



As of September 2024, coal and lignite-based power generation remains dominant, accounting for ~48% of total installed capacity.

Exhibit 13: India installed RE* capacity of 201 GW as of Sep'24 (% share)



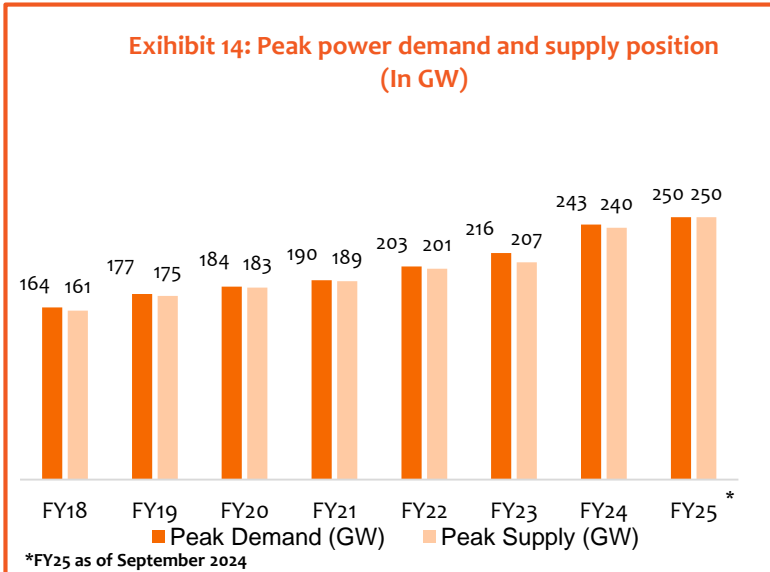
- ❑ Renewable energy (RE) has seen significant growth, with RE capacity (including large hydro) reaching ~191 GW, up from 114 GW in 2018, now constituting 45% of total capacity.
- ❑ This surge has been driven primarily by solar power, which grew rapidly from 22 GW to ~91 GW during the same period

Source: IPO Prospectus, DevenChoksey Research

NTPC Green Energy Ltd.

Industry Overview:

Historical trend in power demand and energy requirement:



- India's peak electricity demand has surged from 164 GW in FY 2018 to 243 GW in FY 2024, growing at an average rate of 6.8% annually over the past six years.
- In FY 2025 (as of September 2024) the peak demand further increased to 250 GW during the month of May 2024.

Source: IPO Prospectus, DevenChoksey Research

Post-pandemic, peak demand has shifted to the summer months (April-July), largely due to extreme heatwave conditions. Despite this rising demand, strong capacity additions in generation and transmission, along with improved inter-regional transmission, have helped reduce the energy deficit from 3.6% in FY 2015 to 0.3% in FY 2024.

Triggers for the Power demand supply outlook:

Long term demand drivers and constrains:

- India's power demand, linked to its 5.8% average GDP growth, is driven by factors like urbanization, infrastructure development and policies such as 24x7 power and green energy corridors.
- However, growth may be tempered by improved energy efficiency, reduced technical losses and the rise of captive and off-grid renewable generation

Railway electrification and metro rail projects to drive a majority of incremental power demand:

- Indian Railways aims for 100% electrification by FY 2025, driving an incremental power demand of ~23 BUs annually from FY25 to FY29, though energy efficiency gains will partially offset this. Metro rail expansion, with 712 km under construction and 1,878 km proposed, will add 5-6 BUs annually over the same period.
- Additionally, the growing adoption of electric vehicles is expected to boost demand by 12-13 BUs annually from FY 25 to FY29. These factors will notably impact power demand in the medium term.

Declining T&D losses, an increase in off-grid/rooftop projects and open access transactions to drive power demand downward:

- T&D losses are expected to continue declining, aided by the Revamped Distribution Sector Scheme (RDSS), reducing power demand by 20-25 BUs annually from FY 2025 to FY 2029.
- Decentralized generation, driven by rooftop solar and falling RE costs, will further cut grid demand, with 32-33 GW of rooftop capacity expected by FY 2029, reducing base demand by 2-3%.
- Captive consumption, led by key industries, will grow, adding ~3-4 GW and 290-300 BUs of demand, reducing grid dependency.

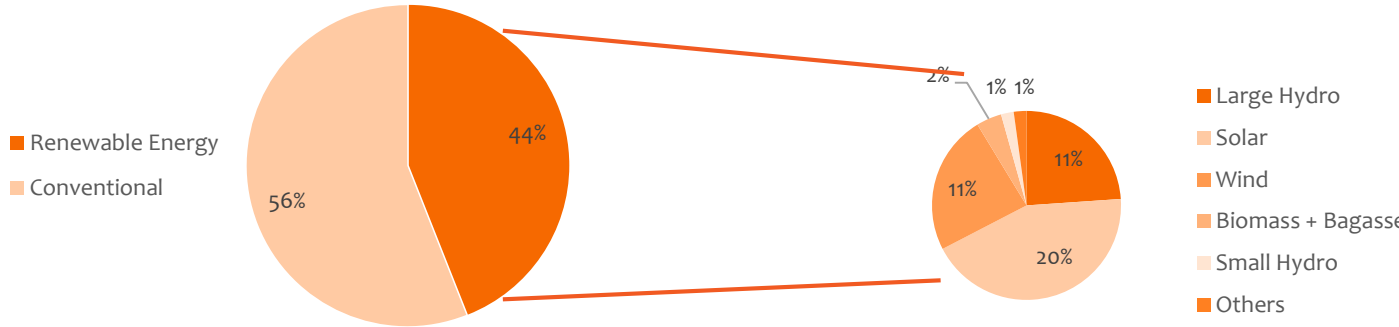
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Industry Overview:

Overview of Renewable Energy sector in India:

Renewable energy capacity in India (including large hydro) has grown fivefold, reaching ~201 GW by March 2024, up from ~63 GW in March 2012. As of September 2024, RE constitutes ~45% of India's total installed generation capacity. This growth has been driven primarily by solar power, which surged from ~0.09 GW in 2012 to ~91 GW in Sept'24

Exhibit 15: India's RE (incl. large hydro) capacity was ~45% at the end of September 2024



Source: IPO Prospectus, DevenChoksey Research

Between FYs 2018 and 2024, India added approximately 76 GW of renewable energy (RE) capacity, including large hydro, driving total installed RE capacity from 114 GW to 191 GW, reflecting a CAGR of 8.9%.

The growth was led by solar, which accounted for ~60 GW of the additions, followed by wind at ~12 GW, with other RE sources contributing ~4 GW. As of FY 2024, RE (including large hydro) represents 43% of India's total installed capacity. This robust growth, supported by government incentives and improved project economics, has positioned the RE sector as a key area of investor interest.

RE Consumption in key Indian states:

With declining tariffs and strong government support, many Indian states have significantly increased its RE capacity and are also purchasing RE to meet energy demand. However, RE penetration varies across states. In the top 10 RE-rich states, RE consumption as a share of total power consumption is above the national average, and this share is generally increasing

Exhibit 16: RE Consumption in key Indian states

State	FY19	FY20	FY21	FY22	FY23
Andhra Pradesh	34%	37%	32%	29%	26%
Chhattisgarh	5%	6%	9%	9%	9%
Gujarat	13%	15%	16%	18%	18%
Haryana	16%	18%	19%	18%	24%
Karnataka	31%	39%	44%	42%	43%
Madhya Pradesh	14%	17%	19%	16%	22%
Maharashtra	13%	14%	15%	17%	18%
Rajasthan	25%	27%	25%	25%	31%
Tamil Nadu	15%	16%	17%	15%	16%
Telangana	15%	19%	17%	20%	22%

Source: IPO Prospectus, DevenChoksey Research

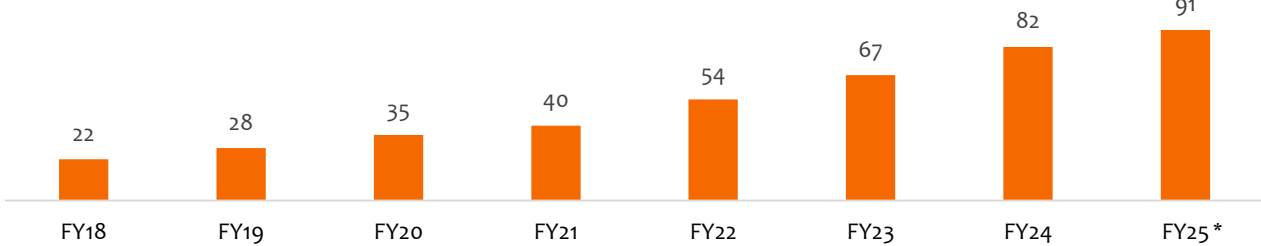
NTPC Green Energy Ltd.

Industry Overview:

Solar Power Sector:

- The solar energy sector in India has experienced impressive growth, becoming a key driver of the country's renewable energy transition. As of March 2024, solar power accounts for 43% of India's total renewable energy capacity (including large hydro).
- Between FYs 2018 and 2024, the sector added approximately 60 GW of capacity, registering a robust CAGR of ~24.8%, despite starting from a low base. This growth highlights the strong momentum in India's push towards expanding its solar energy infrastructure.

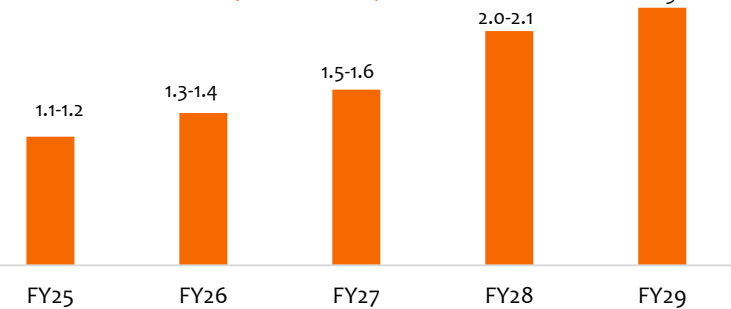
Exhibit 17: Trend in cumulative solar capacity installation in India



*FY25 as of September 2024

Source: IPO Prospectus, DevenChoksey Research

Exhibit 18: Expected Investment in Solar Energy Generation (INR. Trillion)



Source: IPO Prospectus, DevenChoksey Research

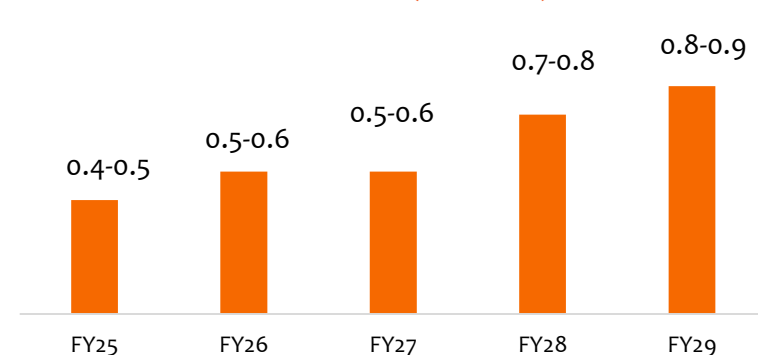
The growth of India's solar sector has been driven by strong government support, including aggressive tendering, technological advancements, affordable financing and supportive policies.

Key catalysts include sustainability targets, cost optimization through rising grid tariffs, subsidies (especially for rooftop solar), and incentives like the ISTS charge waiver. CRISIL MI&A expects 125-130 GW of solar capacity additions from FY 2025-2029, fueled by these factors.

Overview of Wind sector in India:

India has a wind energy potential of 695.5 GW. As of September 2024, it ranks 4th globally with 47 GW installed, contributing 10.5% to total power capacity. From 2016 to 2024, wind capacity grew at a 7% CAGR.

Exhibit 19: Expected Investment in Wind Energy Generation (Rs. Trillion)

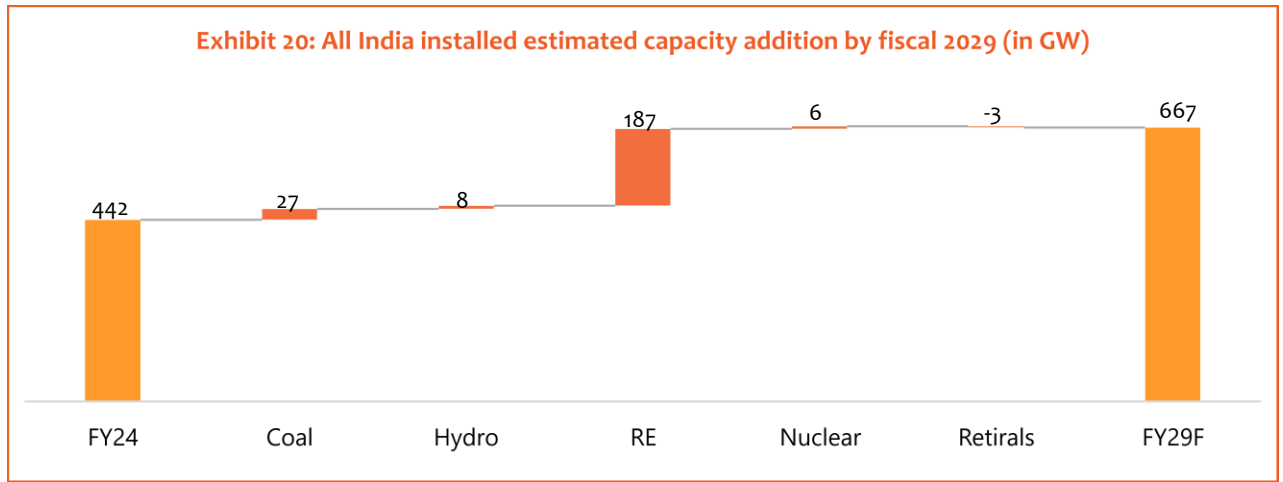


Source: IPO Prospectus, DevenChoksey Research

- India's wind power capacity is expected to grow by 34-36 GW from FY2025-29, attracting investments of ₹2.75-3.0 trillion. Growth will be driven by green hydrogen, government initiatives, and a strong project pipeline.
- Despite a previous slowdown due to bidding changes, new guidelines and increased tendering are set to boost the sector

NTPC Green Energy Ltd.

Industry Overview:



Source: IPO Prospectus, DevenChoksey Research

Exhibit 21: Key players and its share in installed capacity

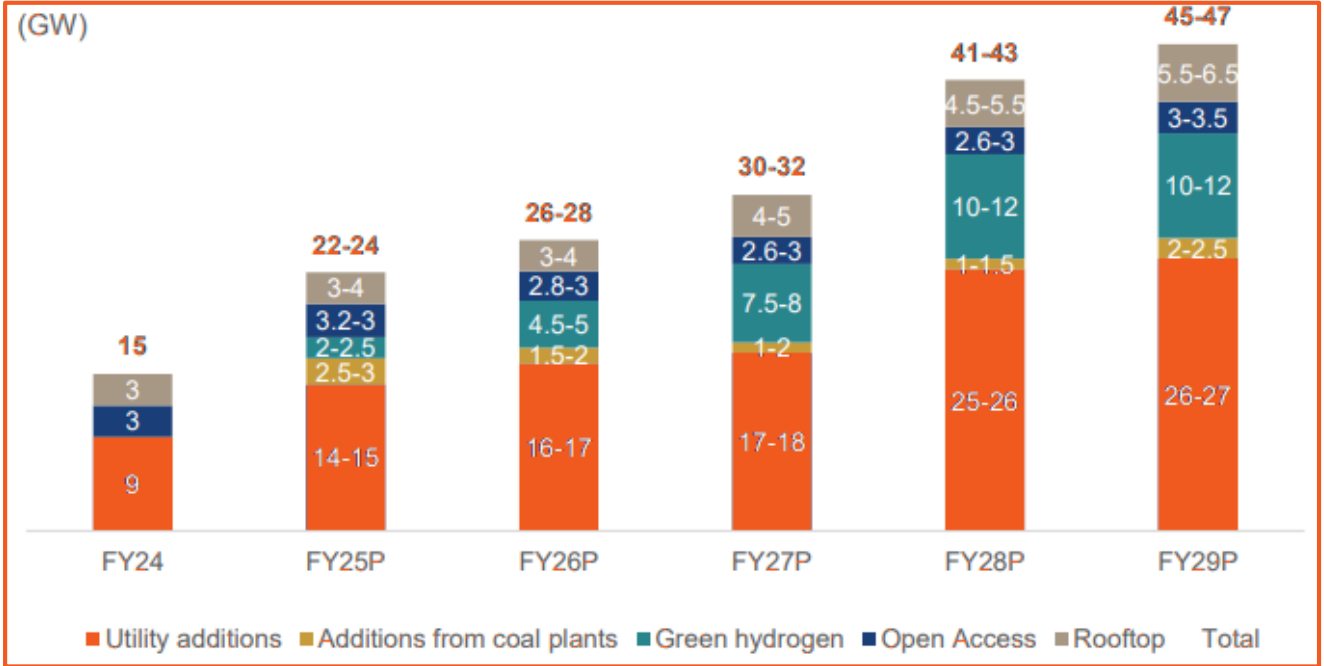
Player	Thermal (Coal + Lignite)	Player	Large Hydro	Player	Solar	Player	Wind
NTPC	29%	NHPC	15%	Adani Green	8%	Adani Green	3%
Adani Power	7%	BBMB	6%	ReNew	6%	ReNew	10%
TATA Power	4%	SJVNL	4%	TATA Power	4%	TATA Power	2%
DVC	3%	NHDC	3%	NTPC	4%	Sembocrp	4%
Reliance Power	3%	NEEPCO	3%	Avaada	3%	JSW	5%
Jindal Power	2%	THDC	3%	Azure	3%	Continuum	3%
JSW	2%	JSW Energy	3%	Acme	2%	Apraava	2%
NLC	2%	NTPC	2%	Greenko	2%	Greenko	7%
Jaypee Group	1%	TATA Power	1%	Sembocrp	1%	Torrent	2%
Total (MW)	2,17,650		46,928		90,762		47,363

Source: IPO Prospectus, DevenChoksey Research

NTPC Green Energy Ltd.

Industry Overview:

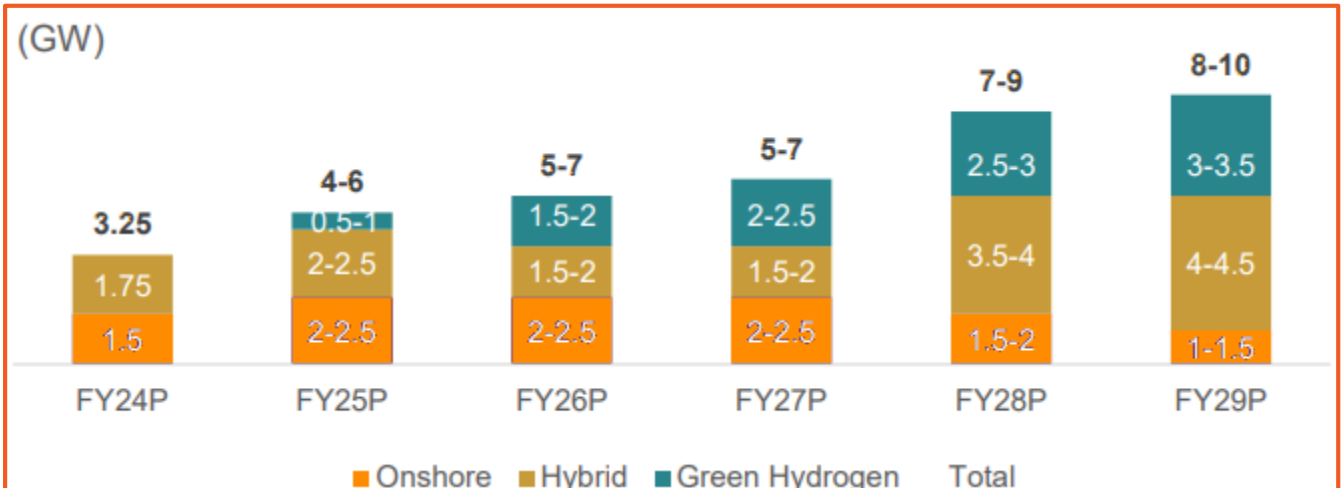
Exhibit 22: 1Year wise expected solar capacity addition in India



Source: IPO Prospectus, DevenChoksey Research

The chart outlines year-wise expected solar capacity additions from FY24 to FY29P, with utility-scale projects driving growth. Notable contributions from rooftop solar, green hydrogen, and open access highlight a move towards a balanced and sustainable solar energy portfolio.

Exhibit 23: Expected annual wind power capacity additions in India



Source: IPO Prospectus, DevenChoksey Research

The chart illustrates the projected annual wind power capacity additions across various categories, including onshore, hybrid, and green hydrogen, from FY24P to FY29P. It highlights a consistent growth trajectory, with significant contributions expected from green hydrogen and hybrid sources in later years.

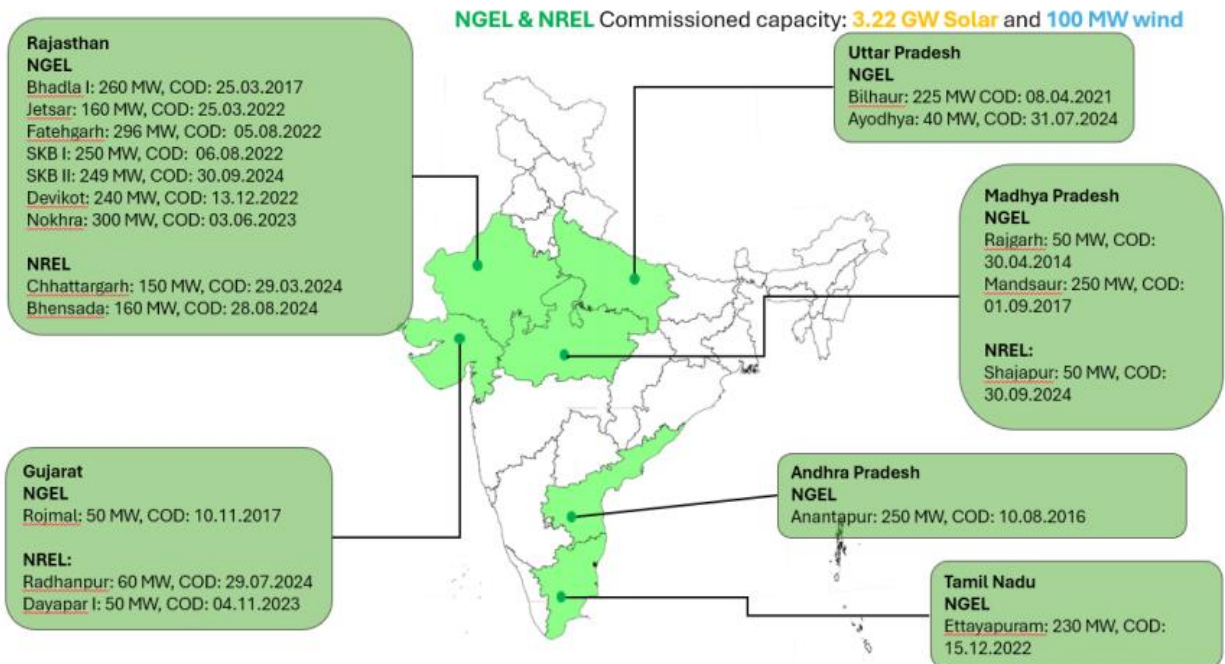
NTPC Green Energy Ltd.

Strengths:

Leading the Way in Solar and Wind Energy, with Global Reach and Diverse Offtakers :

- The company has a large portfolio of utility-scale solar and wind energy projects, along with projects for PSUs and Indian corporates. These projects generate power, which is then fed into the grid, supplying energy to utilities or offtakers.
- As of September 30, 2024, the company had 17 offtakers across 41 solar projects and 11 wind projects. All of the revenue-generating offtakers during the six-month period ending September 30, 2024, were government agencies and public utilities, with which the company has long-term Power Purchase Agreements (PPAs), averaging 25 years in duration.
- As of September 30, 2024, the company’s portfolio consisted of 16,896 MW, including 3,320 MW of operating projects and 13,576 MW of contracted and awarded projects. The company’s pipeline capacity stood at 9,175 MW. In total, the portfolio and pipeline combined reached 26,071 MW as of September 30, 2024.
- The company is recognized as a partner of choice by many PSUs for meeting the renewable energy development goals. The company has entered into 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.
- The company has signed Memoranda of Understanding (MOUs) or term sheets with several private corporates.

Exhibit 24: Operational Projects



Source: IPO Prospectus, DevenChoksey Research

NTPC Green Energy Ltd.

Strengths:

Experienced team in renewable energy project execution and procurement as well as operating and maintenance:

- The company is the renewable energy arm and subsidiary of NTPC Limited. Together with the NTPC Group, it has a proven track record in developing, constructing, and operating renewable power projects, supported by a highly experienced in-house management and procurement team.
- As of September 30, 2024, the company is in the process of constructing projects across six states, with a total contracted and awarded capacity of 13,576 MW.
- The company, in collaboration with the NTPC Group, possesses extensive in-house expertise in renewable energy project execution and procurement. Its team, working alongside third-party developers and EPC contractors, manages land acquisition for projects located on state-leased, third-party leased, and freehold land. As of September 30, 2024, the company owned approximately 8,900 acres of freehold land and 45,700 acres of leasehold land for its projects.
- Transmission infrastructure is essential for project viability and the company utilizes its in-house capabilities to assess evacuation capacity and align project timelines with substation readiness. It benefits from the NTPC Group's long-standing experience in securing grid connections.
- For solar projects, the company employs both the turnkey EPC model and a hybrid approach, where it procures major equipment while the contractor handles construction. In wind projects, the company primarily uses the turnkey EPC model, partnering with OEMs for turbine installation and balance of plant construction.
- The company sources key components like solar panels and wind turbines from trusted suppliers, leveraging NTPC Group's economies of scale to reduce costs. It follows a strict quality assurance process for supplier selection.
- For operations and maintenance (O&M), the company uses advanced technologies such as robotic cleaning and drone thermography to maximize efficiency and extend the lifecycle of its assets.

Powered by NTPC Limited: Leveraging Expertise, Strong Relationships and Financial Strength for Large-Scale Success

- The company ranks among India's top 10 renewable energy players by operational capacity as of September 2024, benefiting from strong support and resources from the NTPC Group. NTPC, with over 76 GW of capacity, aims to expand its renewable portfolio to **60 GW by 2032**, positioning the company at the forefront of India's energy transition.
- NTPC Group's vast assets and highest credit ratings provide financial strength, while its long-term experience in power generation and strong relationships with financial institutions ensure continued access to capital at favorable rates. The company's backing by NTPC Limited, a 'Maharatna' public sector enterprise, enhances its brand and reputation in India's green energy sector.

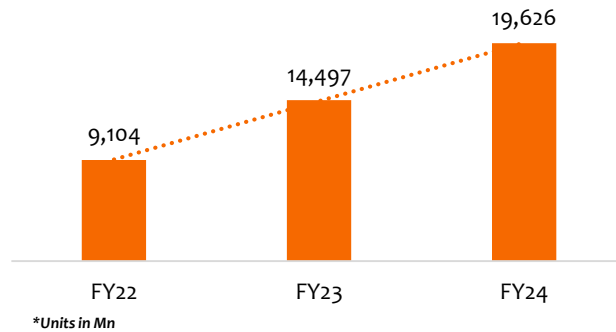
NTPC Green Energy Ltd.

Strengths:

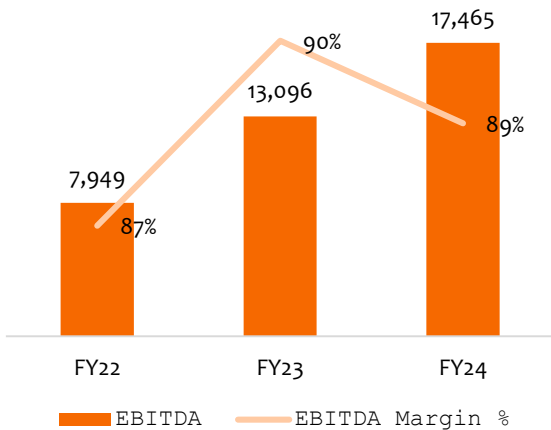
Driving Revenue Growth with Strong Credit Ratings for Cost-Effective Capital:

- The company has reported impressive financial growth, with a 46.82% CAGR in revenue, reaching INR 19,625.98 Mn in FY 2024, and a 48.23% CAGR in operating EBITDA, totaling INR 17,464.70 Mn. PAT grew at a 90.75% CAGR, reflecting strong operational efficiency and margin expansion. Operating EBITDA margins remained robust at 86-90%, and PAT margins, though slightly lower than last year, are still healthy.
- Debt management has improved significantly, with a reduction in the net debt-to-equity ratio from 4.41x in FY22 to 1.91x in FY24. The interest coverage ratio remains strong at 2.60x, signaling solid debt service capacity. A AAA rating from CRISIL supports continued access to low-cost capital, positioning the company for sustainable growth.

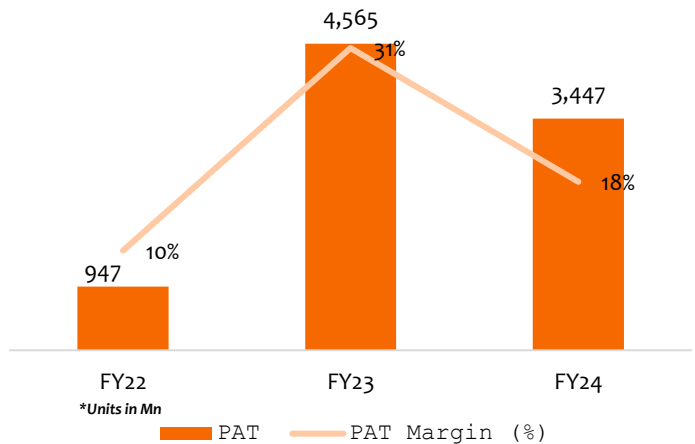
Revenue CAGR of 47%



EBITDA CAGR of 48%



PAT CAGR of 91%



*Units in Mn

Source: IPO Prospectus, DevenChoksey Research, Units in Mn

NTPC Green Energy Ltd.

Strategies:

Driving Growth Through Smart Bidding and Strategic Partnerships with PSUs and Corporates:

- India's renewable energy sector is poised for significant growth, with CRISIL Research forecasting solar capacity additions of 137-142 GW and wind power additions of 34-36 GW from FY 2025 to 2029
- In this expanding market, the company is well-positioned to strengthen its leadership in solar and wind, targeting new geographies and customers.
- The company's focus on executing large-scale projects and securing government and utility tenders aligns with market trends, particularly its strategy to focus on gigawatt-scale projects. In FY 2024, it emerged as a leader in Tariff Based Competitive Bidding, winning 3.5 GW of capacity (equivalent to 5 GW AC), which highlights its competitive strength.
- With a disciplined, data-driven bidding approach aimed at achieving strong internal rates of return (IRR), the company is set to maintain its growth trajectory. As the Indian renewable energy market continues to grow, the company's solid market position and focus on financial prudence should drive continued success.
- The company's pipeline capacity reflects strong future growth, backed by joint ventures with PSUs like RRVUNL, MAHAPREIT and DVC, as well as MOUs with private corporates.
- This positions the company as a key partner for PSUs' renewable energy goals, enabling it to capture a larger share of India's growing market.
- Additionally, the company is exploring acquisitions that offer strategic synergies and meet its return and offtaker criteria, ensuring continued growth in both public and private sectors.

Exhibit 25: Bids/Tenders In Solar And Wind Power Projects By Central And State Governments And Agencies

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
Capacity for which NGEL's bids/tenders won (in MW)	3,265	1,190	3,455
Percentage of bids won against capacity of total bids quoted (Bid Success Ratio)	53.61%	52.77%	38.82%

Source: IPO Prospectus, DevenChoksey Research

Focus on projects in new energy solutions like green hydrogen, green chemicals and storage:

- The company is making key investments in green hydrogen, green chemicals and battery storage technologies. It's developing a major green hydrogen hub at Pudimadaka, focused on hydrogen production and green chemical derivatives, while also partnering on electrolyser technologies.
- In battery storage, it is leading Round-the-Clock (RTC) renewable energy projects, combining solar, wind, and storage for reliable, dispatchable power, with 2.7 GW under development.
- These initiatives align with India's growing demand for battery energy storage (BESS), which is expected to reach 41.7 GW by Fiscal 2030.
- The company's strategic joint ventures with PSUs like MAHAPREIT and RRVUNL further strengthen its position in the renewable energy market, positioning it to capture significant growth in clean energy technologies.

NTPC Green Energy Ltd.

Strategies:

Drive efficiency and cost reductions in project execution and operating & maintenance:

- The company is focused on optimizing project execution to control costs and enhance output. By leveraging the NTPC Group's economies of scale, it plans to reduce EPC costs, component prices, and equipment expenses for its solar and wind projects. This includes procurement of major equipment, like modules and turbines and utilizing NTPC's expertise in land acquisition.
- To further cut costs, the company is integrating new technologies, including advanced turbines, AI-enabled forecasting tools, drones for maintenance, and robotic cleaning systems for solar panels. It's also focused on operational cost optimization through strategies like bulk O&M contracts, pooled spare parts for nearby plants, and cloud-based remote monitoring integrated with AI.
- The company's efforts are aligned with India's sustainability goals, contributing to the nation's Net Zero target. In Fiscal 2024, its renewable power generation helped avoid 5.32 million tons of CO₂e emissions.
- The company is also working to reduce water usage by installing dry-cleaning robotic systems and has registered its projects with international carbon programs like CDM, VCS and GCC.

Risks:

- The company's top five offtakers generated over 87% of its FY24 revenue, with the largest contributing around 50%. Losing any of these could significantly impact financial health.
- Delays or cost overruns in project construction and failure to execute contracted projects could harm the company's growth, operations, and financial stability.
- With over 61% of projects in Rajasthan, major disruptions there could adversely impact the company's business and financial condition.
- The Special Purpose Carved-Out Combined Financial Statements and Carved-Out Operating Data for FY23 and FY22 may not reflect the company's performance as an independent entity.
- Power Purchase Agreements pose risks, including potential impacts from bank guarantees and tariff changes, which could affect the company's financial health.

NTPC Green Energy Ltd.

Outlook & Valuation:

NTPC Green Energy Limited (NGEL) is positioned to play a pivotal role in India's transition to renewable energy, leveraging its status as a subsidiary of NTPC Limited. With a solid operating capacity of 3,320 MW in solar and wind projects and a robust pipeline of approximately 22,751 MW (including awarded and contracted projects), NGEL is well-equipped to capitalize on the expected growth in the renewable energy sector. India's renewable energy capacity is projected to grow significantly with estimated solar capacity additions of 137-142 GW and wind power additions of 34-36 GW by FY 2029. NGEL has showcased an impressive financial growth, with revenue reaching INR 19,626 Mn in FY24, representing a 2 Year CAGR of 46.82%. Additionally, operating EBITDA saw significant increases, maintaining strong margins between 86%-90%. NGEL's established financial track record, coupled with significant growth opportunities and a well-planned capex strategy, positions the company for substantial growth in the renewable energy sector. Furthermore, its valuation at an EV/EBITDA of 23.2x on FY24 EBITDA makes it cheaper compared to peers. Consequently, we assign **'SUBSCRIBE'** rating for the IPO.

Peer Comparison:

Particulars	NTPC Green	Adani Green Energy Limited
Market Cap. (INR Mn)	11,47,240	23,68,050
Revenue from operations (INR Mn)	19,625.98	92,200
EBITDA (INR Mn)	17,465	75,860
EBITDA Margin (%)	88.99%	82.28%
PAT (INR Mn)	3,447	12,600
PAT Margin	17.56%	13.67%
Cash ROE (%)	17.76%	36.91%
EPS	0.41*	7.12
PE ratio	264	184
RONW (%)	5.53%	12.81%
EV/EBITDA	23.2	31.8

*Adj EPS

Source: IPO Prospectus, Deven Choksey Research

NTPC Green Energy Ltd.
Financials:

Income Statement (INR Mn)	Special Purpose Carved- Out Combined Statements		Restated Consolidated Statements		Cash Flow (In INR Mn)	Special Purpose Carved- Out Combined Statements		Restated Consolidated Statements	
	FY22	FY23	FY23	FY24		FY22	FY23	FY23	FY24
Revenue	9,104	14,497	1,697	19,626					
Operating Expenditure	1,155	1,401	183	2,161	CFFO	6,743	7,407	173	15,791
EBITDA	7,949	13,096	1,514	17,465	CFFI	-44,734	-24,846	-1,03,043	-92,070
EBITDA Margin %	87%	90%	89%	89%	CFFF	37,983	18,103	1,03,535	76,708
Other Income	78	78	9	751	Net Increase/(Decrease) in Cash	-8	664	727	429
Depreciation	2,828	4,565	499	6,428	Cash at beginning	71	63	-	727
Interest	2,530	4,701	499	6,906	Cash at end	63	727	727	1,156
Tax	1,722	-656	-1,187	1,435					
PAT	947	4,565	1,712	3,447					
PAT Margin (%)	10%	31%	101%	18%					
Adjusted EPS	0.11	0.54	0.20	0.41					

Balance sheet (INR Mn)	Special Purpose Carved-Out Combined Statements		Restated Consolidated Statements	
	FY22	FY23	FY23	FY24
Assets				
Non-Current Assets				
Property, plant and equipment	75,210	1,47,581		1,75,730
Other non-current assets	71,625	28,793		83,796
Current Assets				
Trade receivables	1,776	3,255		7,048
Cash and cash equivalents	63	727		1,156
Other current assets	173	3,957		4,334
Total Assets	1,48,848	1,84,314		2,72,064
Equity & Liabilities				
Equity share capital	0	47,196		57,196
Other equity	19,515	1,678		5,125
Equity attributable to Shareholders of the Company	19,515	48,874		62,321
Non Controlling Interest	0	1		1
Total Equity	19,515	48,875		62,322
Non -Current liabilities				
Financial liabilities	87,193	59,277		1,31,428
Other non-current liabilities	21,827	27,811		31,643
Current liabilities				
Financial liabilities	19,057	46,582		45,033
Trade payables	926	1,023		625
Other current liabilities	331	746		1,013
Total Equity and Liabilities	1,48,848	1,84,314		2,72,064

Source: IPO Prospectus, Deven Choksey Research

NTPC Green Energy Ltd.

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KRChoksey Shares and Securities Pvt. Ltd.

CIN-U67120MH1997PTC108958

Registered Office: 1102, Stock Exchange Tower, Dalal Street, Fort, Mumbai – 400 001.

Phone: 91-22-6633 5000; Fax: 91-22-6633 8060

Corporate Office: 701-702, DLH Plaza, Opp Shoppers Stop, S V Road, Andheri (W), Mumbai 400 058

Phone: 91-22-66535000

Compliance Officer: Varsha Shinde

Email: varsha.shinde@krchoksey.com