



Adani Green Energy Ltd.

Sun, Storage, and Slightly Less Debt

India's utility-scale renewable industry is now large enough to matter

India power context

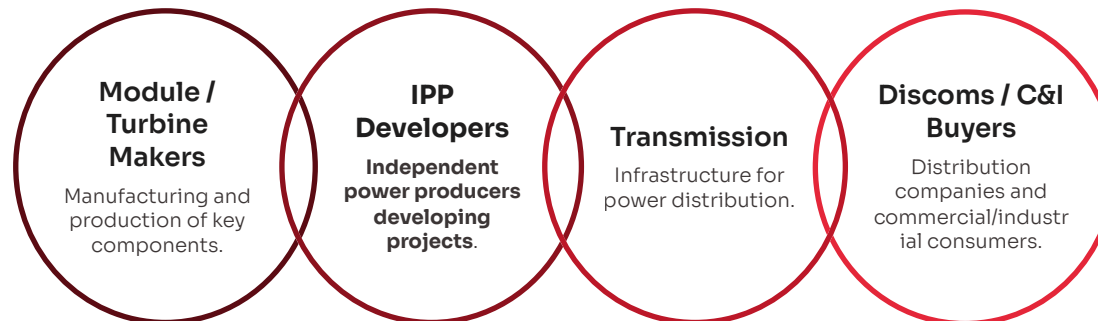
- Total installed capacity about **500 GW**
- Around **249 GW** from coal, balance from renewables, hydro, gas etc.
- Despite capacity split, about **78%** of actual electricity generation still comes from coal because coal plants run at higher CUF than solar or wind.

Relevant industry

- Independent Power Producers that **develop, own and operate** grid connected solar, wind, hybrid and storage assets.
- Sell power mostly via **long term PPAs** to SECI or state discoms, and increasingly via **open access or corporate PPAs** to C and I customers.

Boundaries

- **Included:** project development, financing, construction, ownership, O and M, and sale of power.
- **Excluded:** manufacturing of modules, turbines, transformers; discom retail activities; transmission utilities like PGCIL.



Despite strong EBITDA margins, the industry delivers only mid-teen returns because capital, not operations, drives profitability

Peer set for calculation: Adani Green, ReNew, Azure Power, one PSU player (for example NHPC) as reference.

Metrics to compute from FY24 or latest:

- **EBITDA margin** = EBITDA from power supply ÷ revenue.
- **ROE** = PAT ÷ average equity.
- **Net margin** = PAT ÷ revenue.

Indicative pattern

- IPPs typically show **EBITDA margins in the high 60s or higher**, because capex is front loaded and opex is low.
- Net margin and ROE are much lower, often in **low double digits**, because depreciation and interest eat into profits.

For AGEL specifically :

- FY24 EBITDA from power supply about **₹7,222 crore** on operational capacity of **10,934 MW**, implying roughly **₹0.66 crore EBITDA per MW**.
- Company discloses an EBITDA margin of about **92%** on power supply, which is higher than typical sector peers.

Tariff discipline, cost of capital, and counterparty risk explain why some IPPs win and most don't

Structural drivers of profitability

Tariffs and product type

- Plain solar PPAs clearing near **₹2.5 to 2.8 per kWh**.
- Solar plus storage tariffs in recent SECI tenders around **₹3.5 per kWh**.
- RTC renewable products closer to **₹4.9 to 5.1 per kWh**.
- Same MW, different tariffs, very different revenue per MW.

Cost of capital

- Capital intensity is very high, opex is small.
- A move in WACC from **10-13%** can wipe out equity value even if capex and tariffs are unchanged.
- Players with access to global climate capital and long tenor bonds can sustain higher leverage.

Counterparty & Collections

- Central agencies and strong discoms pay more reliably than weak state discoms.
- Poorly capitalised discoms have **AT and C losses of 15 - 20%**, some states up to **30 - 40%**, leading to delays and underpayment.

Value is migrating from plain solar into storage-backed and C&I products as policy and grid conditions evolve

Past decade

- Solar tariffs fell from around **₹20 per unit to near ₹2**, mainly due to tech and scale, not subsidy.
- This commoditised plain solar and squeezed returns for aggressive bidders.

Current shifts

- Government and SECI now run **hybrid, RTC and storage linked** tenders, with higher tariffs than pure solar.
- **Green Open Access Rules 2022** lowered minimum contract demand to **100 kW**, encouraging C and I customers to bypass discoms and sign direct renewable contracts.

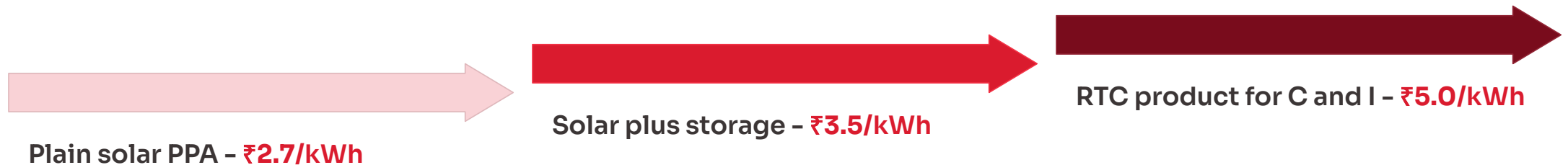
Emerging constraints

- Tender cancellations and unsigned PPAs due to discom finances and grid issues.
- Transmission build often lags solar park build, creating evacuation bottlenecks.

Profit pool direction

Toward IPPs that can deliver firm, time matched green power and serve C and I customers directly.

Tariff ladder within the same technology stack – Same 1 MW, different contract design



The winning position is clear: own scarce sites, sell firm power, and fund growth with the cheapest capital

What a good position in this industry looks like

Asset side

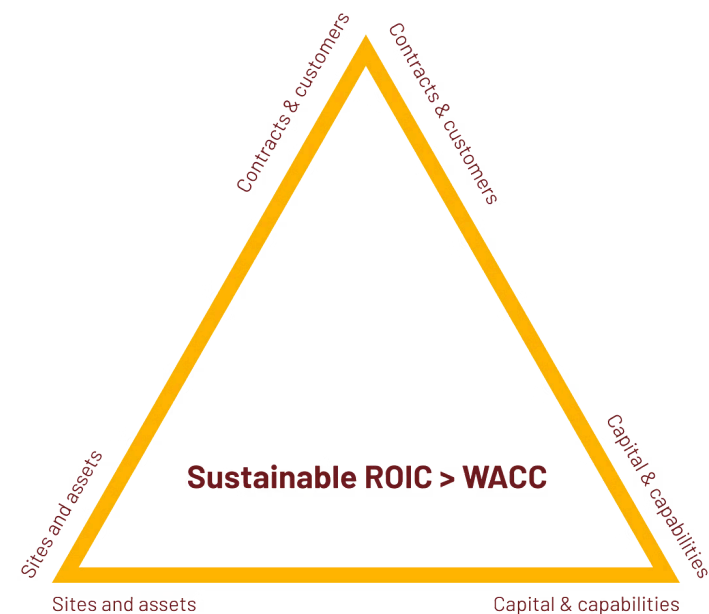
- Large contiguous sites in high irradiation and high wind zones, with secured transmission.
- Portfolio mix that includes **hybrid, RTC and storage** to capture higher tariffs.

Contract side

- Blend of long term PPAs with strong counterparties and **growing share of corporate PPA / open access**.
- Limited exposure to structurally weak discoms.

Finance and capability side

- Proven ability to raise **low cost, long tenor capital** and manage leverage.
- Strong O and M and analytics that drive high CUF and 90 percent type EBITDA margins.



❗ In this industry, competitive advantage comes from how you combine assets, contracts and capital, not from any single lever.

Adani Green is the scale leader with industry-best operating metrics but a balance sheet that limits headroom

Scale and growth

- Operational capacity grew from roughly **2.5 GW** to about **11.6 GW** in four years.
- Target capacity **50 GW by 2030**, backed by the Khavda mega park.

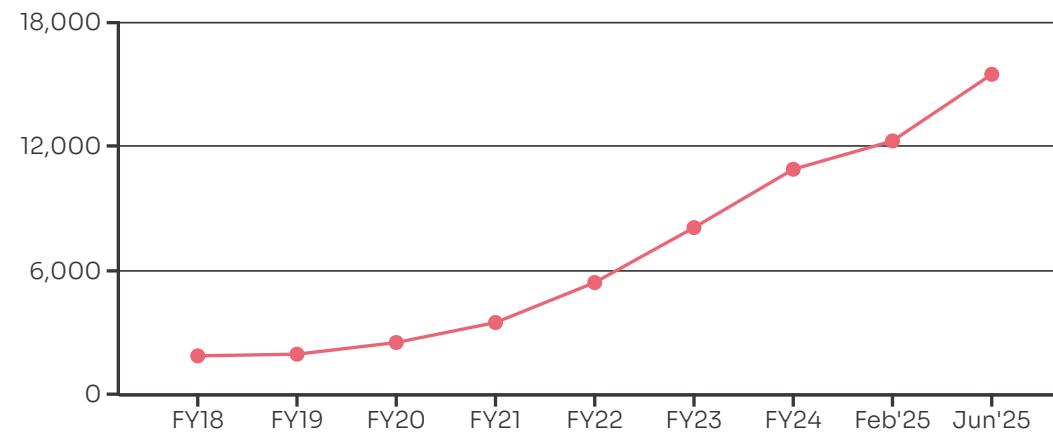
Portfolio mix

- Predominantly solar and wind, with hybrid projects and initial pumped storage and storage plans.
- Very high share of capacity under **25 year fixed PPAs**, small but rising share in merchant and C and I.

Financial profile

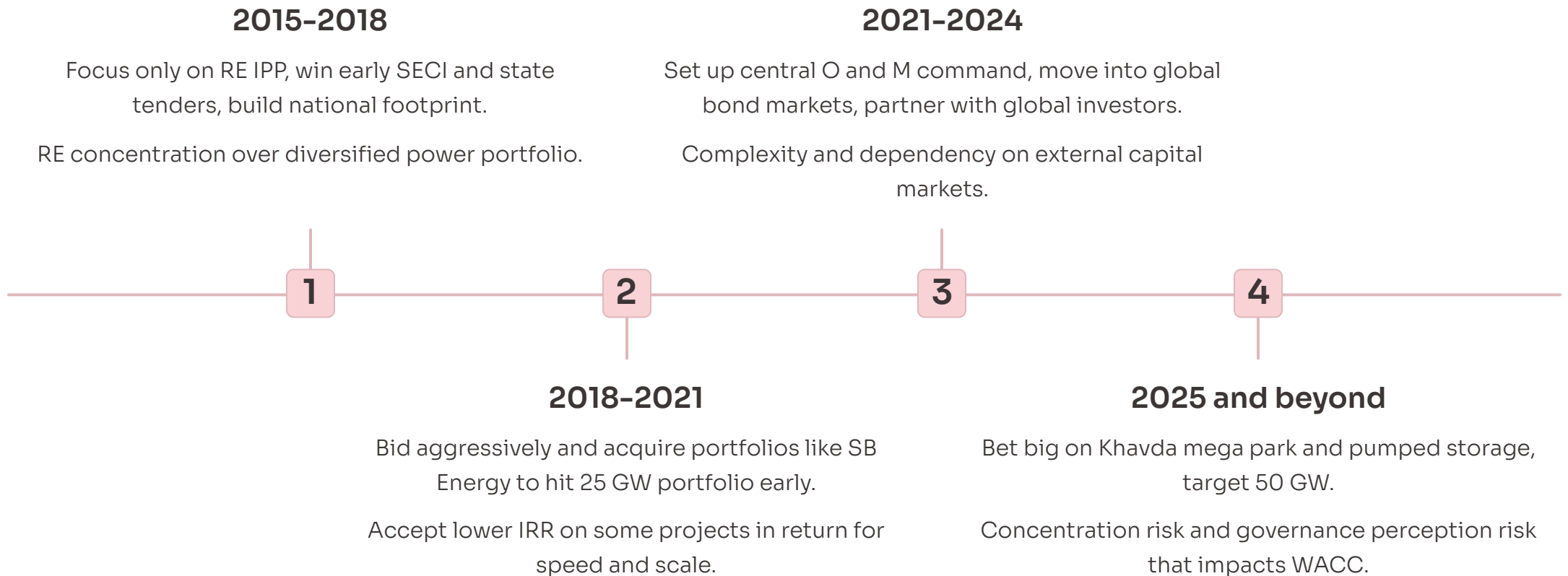
- FY24 EBITDA from power supply about **₹7,222 crore** on **11,609 MW**.
- EBITDA per MW about **₹0.68 crore**, EBITDA margin about **92%**.
- Leverage has improved but remains high, with long term debt to (FFO plus cash) still above 3 times.

Operational renewable capacity growth



AGEL's strategy has always prioritized speed and scale, and now faces the limits of that playbook

Focus and Trade Off Mapping



Its most valuable resources are land, long-dated PPAs, and capital access, but only some are truly defensible

Resource and capability map

Tangible and contracts

- Land bank of more than **2 lakh acres**, with Khavda as a 30 GW anchor site.
- Large book of **25 year PPAs** with must run status, giving visibility of cash flows.

Capabilities

- Centralised O and M (for example ENOC type setup) that uses data to improve CUF and plant availability.
- Proven GW scale execution each year across multiple states.
- Structuring and raising global and domestic capital.

Intangibles and corporate advantage

- Being part of the broader Adani group gives access to group relationships, some brand trust with lenders, and group manufacturing of modules, which can lower project risk.

The company's edge will endure operationally, but its COC and concentration risks threaten ROE

Competitive advantage is basically **outperformance on profits**, not storytelling.

Likely durable

- O and M learning and data bank at large parks such as Khavda.
- Relationship capital with global green investors and lenders.
- Ability to mobilise EPC and suppliers at scale.

Vulnerabilities

- High leverage in a rising rate and risk premium environment.
- Concentration of growth in one mega park and in one country.
- Governance and perception issues that can push WACC up and offset operating advantages.
- Execution risk in storage and pumped storage where economics are still emerging and policy is evolving.

One move. Higher tariff. Lower CoC. Better ROIC trajectory.

Customer Mix

This axis determines who AGEL primarily serves:

- **Option A:** Remain predominantly discom and SECI focused.
- **Option B:** Deliberately grow Commercial & Industrial (C&I) and open access portfolio.

Product Mix

This axis defines the type of renewable energy products offered:

- **Option A:** Continue to add mostly plain solar and wind at low tariffs.
- **Option B:** Build a meaningful share of storage-backed and RTC products higher on the tariff ladder.

Capital Structure

This axis addresses how growth is funded and optimized:

- **Option A:** Keep funding growth entirely on AGEL's balance sheet at current WACC.
- **Option B:** Recycle mature assets into an InvIT or yield platform to lower WACC and free capital.

AGEL should pivot from discom-led plain solar growth to a storage-backed C&I and RTC portfolio anchored at Khavda, funded through an InvIT-based recycling of mature solar and wind assets. This allows AGEL to raise average tariffs, reduce WACC, and deploy capital into higher-value generation rather than expanding low-yield PPAs on its own balance sheet.

Thank you

Aagrah Nigam | Sanya Aggarwal | Aditya Sharma

 **Appendix**