



GREEN PPAS · STEP 01 · DEMAND STUDY · MODEL

RE-Fit Sizing Model

Interactive capacity-mix model testing solar, wind and hybrid combinations against the load curve to optimise self-consumption and minimise grid draw.

Worked example (anonymised): Multi-site auto-component manufacturer, load aggregation study · 42 MW aggregated contract demand across 6 plants · Western India. Manufacturer sought to raise RE share from 18% to 60%+ across a multi-state manufacturing footprint with varying ToD tariffs and shift patterns.



Illustrative sample image

Sample excerpt · Capacity Mix Sensitivity Grid (Illustrative)

Scenario	Solar (MW)	Wind (MW)	RE Share (%)	Grid Draw (MU/yr)
Solar-only	35	0	48%	56.2
Wind-only	0	28	41%	63.8
Hybrid 60:40	22	15	58%	45.1
Hybrid + storage	22	15	68%	34.6
Base case (current)	8	0	18%	88.4

Notes

- Hybrid + storage scenario shortlisted for next-stage sourcing strategy
- Storage sizing kept indicative pending tariff discovery in Step 3

What happens in this step

1. Collect 12-24 months of 15-minute interval consumption data across all connection points and voltage levels
2. Build load duration curves and seasonal/monthly demand heat-maps to identify base, peak and trough patterns
3. Map ToD tariff slabs against actual consumption to quantify current ToD arbitrage losses
4. Run RE-fit simulations overlaying solar-only, wind-only and hybrid generation profiles against the load curve
5. Assess captive/group-captive eligibility, open-access feasibility and banking regulations for the host state



6. Size the optimal RE capacity mix (MW) and contract structure (firm, must-run, peak-shaving) with sensitivity ranges
7. Present findings with a recommended sourcing envelope to carry into the next stage

Outcomes

- Clear, data-backed target capacity range and RE mix before entering the market
- Quantified current ToD losses translated into avoidable cost opportunity
- Reduced risk of over/under-contracting in the eventual PPA
- A validated regulatory and structural pathway (captive/OA/group-captive) per site

Want this for your project? Write to info@growthifye.com or use the Contact page — we will scope the real deliverable set for your capacity, state and lender requirements.

ILLUSTRATIVE