



Working Capital Management & Financing Guide

RENEWABLE ENERGY (SOLAR, WIND & STORAGE)

Terkar Capital
Insights

RENEWABLE ENERGY – OVERVIEW

263.19 GW
RE CAPACITY

49.8%
NON-FOSSIL SHARE

27.2 GW
FY26 SOLAR ADDED

500 GW
2030 TARGET

- ✓ **Hybridization Era:** Shift to Solar-Wind-Storage hybrids to solve intermittency.
- ✓ **Manufacturing Sovereignty:** PLI scheme has made India a net exporter of modules.
- ✓ **Green Hydrogen:** RE "bundled" for electrolyzers creates new industrial demand.
- ✓ **Rooftop Revolution:** PM-Surya Ghar initiative driving 400% surge in smaller cities.
- ✓ **Offshore Wind:** 2026 marks groundbreaking projects in Gujarat & Tamil Nadu.

OPERATIONAL PROCESS IN RE PROJECTS



1

Siting

12-24 Months

Land acquisition,
irradiation studies,
Interconnection (GNA)
approvals.

2

EPC

6-12 Months

Sourcing Tier-1
equipment, civil work,
and module/turbine
erection.

3

Trial

30-60 Days

Substation
synchronization and grid
connectivity
certification.

4

O&M

25 Years

SCADA monitoring,
predictive maintenance,
and billing.

KEY RESOURCES & INPUTS



Natural Assets

Land parcels with high CUF—solar irradiation and wind speed data are critical benchmarks.



Equipment

Bi-facial solar modules, trackers, modern wind turbines, and Battery Storage (BESS).



Infrastructure

Evacuation lines, pooling substations, and smart transformers for grid integration.



Human Capital

Design engineers, SCADA specialists, and specialized wind-turbine technicians.



Regulatory

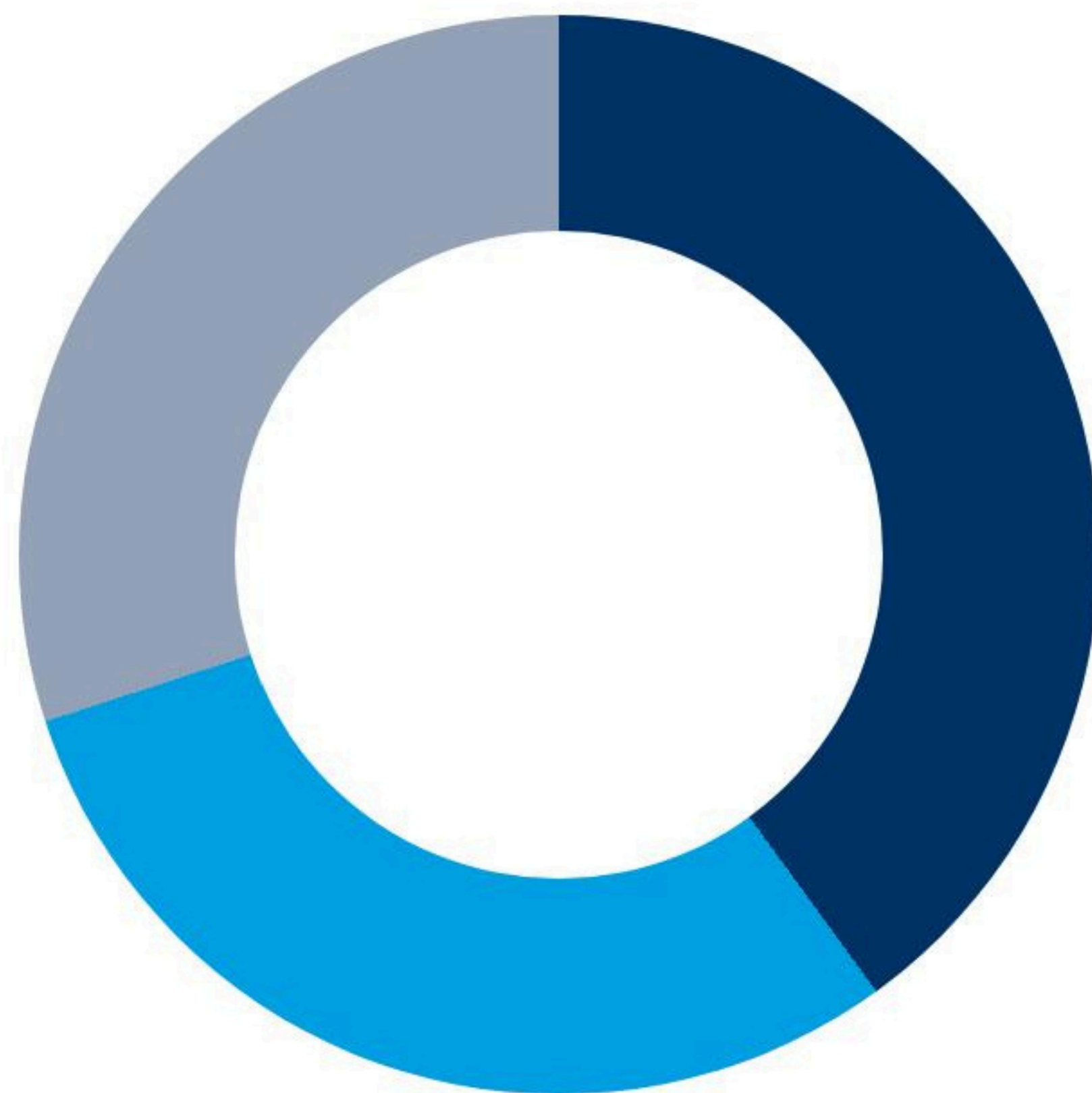
Long-term PPAs, ISTS waivers, and Carbon Credits on the Indian Carbon Market.



Smart Grid

Automated substation controls and real-time generation forecasting tools.

DELIVERABLES & REVENUE STREAMS



- ✓ **Utility-Scale:** Bulk power to SECI/NTPC.
- ✓ **Open Access (C&I):** Direct sales to factories & data centers.
- ✓ **Rooftop (EPC):** Turnkey installation services.
- ✓ **O&M Services:** Third-party maintenance contracts.
- ✓ **REC/Carbon:** Selling Renewable Energy Certificates.

WORKING CAPITAL CYCLE IN RE



Cycle Breakdown

- ✓ Inventory: 30–60 Days
- ✓ Receivables: 60–180 Days
- ✓ Payables: 30–60 Days

The Cash Gap

90-150

Day liquidity gap driven by DISCOM payment delays.
Bridging this gap is crucial for project viability.

CURRENT ASSET COMPOSITION

Trade Receivables

70%

WIP (Construction)

15%

Unbilled Revenue

10%

DSRA (Reserves)

5%

Note: Trade Receivables remain the dominant asset, often involving unpaid bills from state power utilities over 120+ days.

COMMON MISTAKES TO AVOID



- ✘ **Ignoring "Basis Risk":** Siting projects in congested nodes leading to curtailment losses of up to 15%.
- ✘ **Poor PPA Quality:** Signing with low-rated DISCOMs without robust payment security (LCs).
- ✘ **Underestimating O&M:** Failing to account for cleaning water scarcity in desert regions.
- ✘ **Technology Obsolescence:** Buying older gen modules before major efficiency jumps in N-type tech.

STANDARD OPERATING METRICS



Metric	Industry Standard (2026)
CUF (Solar)	21% - 26% (Bi-facial + Trackers)
CUF (Wind)	35% - 42% (Modern 3MW+ WTGs)
EBITDA Margin	80% - 90% (High operating leverage)
Levelized Cost (LCOE)	₹2.40 - ₹2.80 per unit
Debt Service Coverage (DSCR)	1.15x - 1.25x

REVENUE REALIZATION PERIODS



Corporate

15-30 Days

High reliability; direct corporate billing cycles.

Central (SECI)

30-45 Days

Excellent payment security and liquidity.

State DISCOM

60-180 Days

Tier 2 utilities (TN, AP, RJ) remain bottlenecks.

Strategic Insight: Utilize Bill Discounting against SECI/NTPC invoices to unlock project equity early.

INDUSTRY THREATS & CHALLENGES



Grid Congestion

Inadequate infrastructure leading to forced backdowns of plant generation.



Supply Chain

Volatility in polysilicon and lithium prices affecting solar/BESS CAPEX.



Interest Rates

High sensitivity (75:25 debt-to-equity) to 50-100 bps rate hikes.

HOW TERKAR CAPITAL CAN HELP



- ✓ **Project Debt:** Arranging ₹50 Cr to ₹1,000 Cr+ for utility-scale projects.
- ✓ **Bridge Loans:** Capital for land acquisition and mobilization costs.
- ✓ **Bill Discounting:** Immediate liquidity against long-pending state invoices.
- ✓ **Equipment Finance:** For high-efficiency turbines and BESS units.
- ✓ **Mezzanine Debt:** Meeting Equity Contribution requirements for large banks.
- ✓ **LCOE Advisory:** Financial structuring to optimize project returns.



Partner with Terkar Capital

Financing the Energy Transition for a Sustainable Bharat



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