

PRE-DEVELOPMENT DUE DILIGENCE TOOL

Energy Audit & Technical Site Assessment Checklist

For Mini-Grid and Commercial & Industrial (C&I) Power Projects.

Use this checklist during the site visit and desk review stage — before a term sheet, license application, or EPC scope is drafted. It combines a technical site survey with the commercial, regulatory and E&S questions that determine whether a project is bankable, not just buildable.

1. Project & Site Identification

#	Checklist Item	Finding / Data	Done
1	Facility / site name and off-taker legal entity		
2	Project type (rooftop C&I solar, ground-mount, mini-grid, hybrid, BESS-only)		
3	Site address and GPS coordinates (lat/long)		
4	Assessment date and attendees (name, role, organisation)		
5	Land/roof ownership status (owned, leased, concession, customary)		
6	Site accessibility for construction vehicles and cranes		

2. Existing Power Supply & Reliability

#	Checklist Item	Finding / Data	Done
1	Grid connection present? If yes, name of distribution utility		
2	Grid availability — average hours/day and outage pattern over past 12 months		
3	Tariff category, current unit tariff, and monthly grid spend		
4	Backup generator(s) present — capacity, brand, age, condition, fuel type		
5	Generator daily run hours and monthly fuel cost		

2. Existing Power Supply & Reliability

#	Checklist Item	Finding / Data	Done
6	Any existing on-site renewable or storage assets		
7	History of load-shedding, voltage fluctuation, or equipment damage		

3. Load Profile & Demand

#	Checklist Item	Finding / Data	Done
1	Site's average load (kW/MW)		
2	Site's peak load and time of day it occurs		
3	Site's base/minimum load and time of day it occurs		
4	Site operational hours and seasonality		
5	Critical vs. deferrable loads		
6	Anticipated load growth over next 3–5 years		
7	Availability of 12 months' interval or billing data for load modelling		

4. Roof / Land & Physical Infrastructure

#	Checklist Item	Finding / Data	Done
1	Roof type (flat, pitched) or land topography		
2	Roof condition and remaining structural lifespan		
3	Roof/structure material		
4	Roof orientation and tilt (N/S/E/W)		
5	Shading/obstructions and distance from array		
6	Available roof or land area for panel/array placement (measured)		
7	Space for carport or ground-mount structure, if applicable (measured)		
8	Intended footprint for equipment room / BESS enclosure (measured)		
9	Soil conditions and geotechnical considerations		

5. Electrical Infrastructure & Interconnection

#	Checklist Item	Finding / Data	Done
1	Estimated cable route: solar array to equipment/inverter room		
2	Estimated cable route: equipment room to client's LV/MV electrical room		
3	Existing switchgear, transformer and metering configuration		
4	Available capacity/headroom at point of interconnection		
5	Earthing, lightning protection and existing protection coordination		
6	Utility interconnection requirements and net-metering rules, if grid-tied		

6. Land, Permitting & Regulatory Readiness

The step most rooftop checklists skip — and the one that most often stalls financial close.

#	Checklist Item	Finding / Data	Done
1	Applicable licensing threshold and regime		
2	Land tenure documentation required for the license/permit application		
3	Zoning, building and fire-safety permits required locally		
4	ESIA trigger — category and scope required		
5	Import duty/tax exemption eligibility for renewable energy equipment		
6	Grid code or interconnection agreement requirements, if applicable		
7	Estimated permitting timeline and identified critical-path approvals		

7. Environmental & Social Considerations

#	Checklist Item	Finding / Data	Done
1	Community or third-party land use in or adjacent to project footprint		
2	Resettlement, land access, or livelihood impacts		
3	Hazardous materials on site requiring specialist handling		

7. Environmental & Social Considerations

#	Checklist Item	Finding / Data	Done
4	Noise, waste and decommissioning considerations		
5	Grievance mechanism or community engagement already in place		

8. Commercial & Financing Readiness

#	Checklist Item	Finding / Data	Done
1	Off-taker creditworthiness and preferred contract structure		
2	Target commissioning date and any financing deadline		
3	Budget range or financing source under consideration		
4	Key documents available for lender/investor due diligence		
5	Any existing feasibility study, ESIA, or geotechnical report to reference		

9. Site Documentation & Evidence

#	Checklist Item	Finding / Data	Done
1	Photographs: proposed roof/land area for installation		
2	Photographs: client LV/MV panels and electrical room		
3	Photographs: intended cable routes for solar and BESS output		
4	Photographs: existing generator and fuel storage, if present		
5	Copies of recent utility bills (minimum 12 months, if available)		

10. Sign-Off

#	Checklist Item	Finding / Data	Done
1	Assessment findings reviewed and validated with client/off-taker		
2	Open items and information gaps logged with owner and due date		

10. Sign-Off

#	Checklist Item	Finding / Data	Done
3	Go/no-go recommendation and next step agreed		