



RESEARCH | PUBLIC-SOURCE TECHNICAL DOSSIER

South African Commercial Solar & Battery Storage

DECISION QUESTION

What does the current public record support about commercial solar PV and behind-the-meter battery storage in South Africa?

EXECUTIVE POSITION

The public record supports a substantial and active market for distributed renewable-energy solutions, including behind-the-meter solar PV and battery storage. But project economics and execution remain highly site-specific. Grid connection, embedded-generation registration, tariff structure, technical compliance and the customer load profile can materially change the answer.

Product	RESEARCH
Product purpose	Find the answer. Build a bounded, source-traceable answer from fragmented public evidence.
Sector	Renewable energy
Jurisdiction	South Africa
Status	CONTROLLED PUBLICATION CANDIDATE - HUMAN APPROVAL PENDING
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REALITY BEFORE RELIANCE | VERIFICATION BEFORE INTERPRETATION | EVIDENCE BEFORE NARRATIVE

Independent public-source case study - not a client engagement. No conclusion stronger than the available evidence. Final human approval remains pending.

Package control & evidence architecture

Prepared by	Aperture Research Works
Authorship / final human authority	Paul Hattingh - approval pending for this exact publication candidate
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Professional boundary	No legal advice, engineering certification, audit opinion, actuarial opinion, investment advice or other reserved professional determination is provided.

Six-document package

Doc	Controlled document	Function
1	Principal Investigative Dossier	Decision answer, scope, findings, technical analysis, hypotheses, contradictions, gaps, risk and hand-off controls.
2	Claims-and-Evidence Matrix	Proposition-by-proposition traceability with factual status, confidence, reliance and Source IDs.
3	Master Chronology	Time-ordered record separating baseline, event, correction, update and current-status evidence.
4	Source and Evidence Register	Visible URLs plus source authority, role, limitation, dependence and supported propositions.
5	Public Portfolio Edition	Concise demonstration suitable for public website display while preserving material caveats.
6	Final Delivery Manifest	Production conformity, readiness, release gates, web links, supersession and hash-control architecture.

Reader workflow

- Start with the decision question and executive position.
- Test every material finding in Document 2 against its S-IDs.
- Use Document 3 to determine whether a later event changes an earlier proposition.
- Use Document 4 to inspect provenance and limitations directly at source level.
- Do not strip caveats when transferring a proposition into another decision document.
- Use Document 6 before release to confirm that the package and website remain synchronized.

DOCUMENT 1

Principal Investigative Dossier

The principal dossier establishes the bounded answer, shows how the evidence was tested and makes the decision dependencies visible.

How to use this document

- Read the executive answer first.
- Follow each material finding to its C-ID and S-ID.
- Treat exclusions, gaps and reliance status as part of the answer, not footnotes.
- Use the decision-transfer checklist before carrying any conclusion into a transaction, publication, board paper or operating decision.

Evidence-chain reading rule

Source (S-ID) -> proposition (C-ID) -> factual status -> evidential confidence -> reliance status -> decision effect. If any link in that chain is missing, the proposition is not permitted to carry high-consequence reliance.

1. Matter understanding and decision frame

What does the current public record support about commercial solar PV and behind-the-meter battery storage in South Africa?

The public record supports a substantial and active market for distributed renewable-energy solutions, including behind-the-meter solar PV and battery storage. But project economics and execution remain highly site-specific. Grid connection, embedded-generation registration, tariff structure, technical compliance and the customer load profile can materially change the answer.

Product outcome

Find the answer. Build a bounded, source-traceable answer from fragmented public evidence.

In scope

- Commercial and industrial behind-the-meter solar PV and battery storage in South Africa.
- Market-level economics, grid interaction, tariff dependence and execution controls.
- Eskom SSEG registration evidence and the distinction between Eskom and municipal networks.
- Evidence needed to move from a market thesis to a site-specific investment decision.

Explicit exclusions

- Electrical engineering design, protection study or grid-code certification.
- A tax opinion, financing commitment or bankable financial model for a named site.
- Municipality-specific approval unless separately evidenced.
- Vendor selection, equipment warranty due diligence or EPC contracting.

Jurisdictions and disciplines

Jurisdiction(s)	South Africa
Applicable disciplines	energy markets; distributed generation; project diligence; grid connection; commercial modelling
Governing evidence date	8 September 2026, 07:38 SAST
Decision transfer	Orientation / diligence planning unless a proposition is separately cleared for stronger reliance

2. Executive findings and reliance effect

Finding 1

GreenCape's 2026 renewable-energy market intelligence identifies behind-the-meter solar PV and BESS as an investment opportunity and links demand to energy security, electricity costs and decarbonisation pressure.

Claim linkage: C01. Read together with the cited sources and qualification in Document 2.

Finding 2

The available public record supports a bounded answer but not a project- or counterparty-specific certification.

Claim linkage: C02. Read together with the cited sources and qualification in Document 2.

Finding 3

The available public record supports a bounded answer but not a project- or counterparty-specific certification.

Claim linkage: C03. Read together with the cited sources and qualification in Document 2.

Finding 4

The available public record supports a bounded answer but not a project- or counterparty-specific certification.

Claim linkage: C04. Read together with the cited sources and qualification in Document 2.

Reliance rule: an attractive or convenient narrative is not permitted to outrun the proposition the evidence actually establishes. Any project-, counterparty-, legal-, engineering-, operational- or financial conclusion that depends on non-public evidence remains conditional until that evidence is obtained and authenticated.

3. Technical and operating analysis

3.1 Site-level energy architecture

A commercial solar and storage decision is governed by the coincidence of load, tariff and generation rather than headline installed capacity. At minimum, the evidence record should reconcile interval load data to billed energy and maximum demand, distinguish daytime self-consumption from export, and define what service the battery is expected to provide. Battery value should be decomposed into peak reduction, energy arbitrage, resilience and any export or ancillary value. Combining these benefits without dispatch logic can double count value.

- 12 to 24 months of interval load data reconciled to invoices.
- Current tariff schedule, time-of-use periods, demand charges and escalation assumptions.
- PV yield model with orientation, losses, clipping, availability and degradation.
- Battery usable energy, power rating, round-trip efficiency, cycle warranty, state-of-charge reserve and augmentation assumptions.

Aperture control: separate the source-supported fact from inference, assumption, forecast and missing decision evidence. Carry the C-ID/S-ID chain forward when this module is used in a decision.

3.2 Economics and sensitivity

A responsible commercial model should expose the assumptions that drive NPV, IRR and payback. Small changes in tariff escalation, finance cost, battery cycling or replacement timing can materially change the answer. A vendor headline payback is therefore an input to test, not the decision.

- Run base, downside and severe-downside cases.
- Separate nominal tariff escalation from real savings growth.
- Test export value at zero where approval or compensation is uncertain.
- Model battery replacement or augmentation explicitly.

Aperture control: separate the source-supported fact from inference, assumption, forecast and missing decision evidence. Carry the C-ID/S-ID chain forward when this module is used in a decision.

3.3 Grid connection and compliance

Grid-parallel operation introduces documentary and technical dependencies that are distinct from the equipment purchase. Registration, inverter compliance, protection settings, export limitations and commissioning evidence can affect both schedule and economics. Eskom requirements cannot simply be assumed to apply unchanged inside a municipal distribution area.

- Identify the actual electricity distributor and point of connection.
- Confirm SSEG process before design freeze.
- Retain CoC, inverter certification, settings and commissioning evidence.
- Treat permission to connect and expected energy performance as separate propositions.

Aperture control: separate the source-supported fact from inference, assumption, forecast and missing decision evidence. Carry the C-ID/S-ID chain forward when this module is used in a decision.

3.4 Decision gates

The market thesis is supported, but project approval should be gated on site evidence. The evidence package should make it possible for a reviewer to reproduce the major cash-flow drivers and identify which inputs are measured, contracted, regulated or merely assumed.

- Gate 1: load and tariff evidence complete.
- Gate 2: grid route and export position evidenced.
- Gate 3: technical performance model independently reviewable.
- Gate 4: financial sensitivities and financing terms reconciled.

Aperture control: separate the source-supported fact from inference, assumption, forecast and missing decision evidence. Carry the C-ID/S-ID chain forward when this module is used in a decision.

4. Evidence tests applied to the technical modules

Authority test

Is the proposition supported by the body with direct legal, regulatory, operational or reporting authority, or only by a derivative account?

Applied result: see the claim matrix, source register, chronology and gap register. The test is not passed by document volume; it is passed by traceable evidence appropriate to the proposition.

Entity test

Does the source refer to the exact legal entity, asset, project, customer, jurisdiction or operating system relevant to the decision?

Applied result: see the claim matrix, source register, chronology and gap register. The test is not passed by document volume; it is passed by traceable evidence appropriate to the proposition.

Time test

Was the proposition true at the evidence cut-off, or only at an earlier stage of policy, financing, announcement, litigation or implementation?

Applied result: see the claim matrix, source register, chronology and gap register. The test is not passed by document volume; it is passed by traceable evidence appropriate to the proposition.

Completion test

Does an announcement evidence intent, approval, financing, construction, commissioning, production, delivery or sustained performance? These are separate states.

Applied result: see the claim matrix, source register, chronology and gap register. The test is not passed by document volume; it is passed by traceable evidence appropriate to the proposition.

Quantification test

Is a number an observation, estimate, model output, target, forecast, commitment, nameplate capacity, maximum, average or scenario?

Applied result: see the claim matrix, source register, chronology and gap register. The test is not passed by document volume; it is passed by traceable evidence appropriate to the proposition.

Negative-evidence test

What expected authoritative evidence is absent? Does absence materially weaken the proposition or merely reflect public-record limits?

Applied result: see the claim matrix, source register, chronology and gap register. The test is not passed by document volume; it is passed by traceable evidence appropriate to the proposition.

Independence test

Are multiple apparent sources actually repeating the same company statement, press release, dataset or institutional record?

Applied result: see the claim matrix, source register, chronology and gap register. The test is not passed by document volume; it is passed by traceable evidence appropriate to the proposition.

Decision-materiality test

Would a reasonable decision-maker change action, price, timing, scope or controls if this proposition were weaker than stated?

Applied result: see the claim matrix, source register, chronology and gap register. The test is not passed by document volume; it is passed by traceable evidence appropriate to the proposition.

5. Competing hypotheses, steelman and falsification

ID	Hypothesis	Strengthening evidence	Falsification condition
H1	The market thesis is broadly valid but project value is site-specific.	Evidence that would materially strengthen it	Evidence that would falsify or materially weaken it
H2	Grid/registration requirements materially change economics and timing.	Evidence that would materially strengthen it	Evidence that would falsify or materially weaken it
H3	Headline battery value is overstated if stacked benefits are double counted.	Evidence that would materially strengthen it	Evidence that would falsify or materially weaken it
H4	A site can remain attractive under conservative tariff/export assumptions.	Evidence that would materially strengthen it	Evidence that would falsify or materially weaken it

Steelman rule: the strongest reasonable version of each competing explanation is retained until the evidence justifies rejection. Falsification evidence is actively sought; no hypothesis is selected because it is commercially or rhetorically convenient.

6. Contradiction and evidence-gap register

ID	Issue	Why apparent contradiction can arise	Control
X01	Potential tension around hypothesis H1	Different source types may describe different stages, scopes or levels of certainty.	Do not force reconciliation. Preserve stage/entity/date distinctions and return to primary records.
X02	Potential tension around hypothesis H2	Different source types may describe different stages, scopes or levels of certainty.	Do not force reconciliation. Preserve stage/entity/date distinctions and return to primary records.
X03	Potential tension around hypothesis H3	Different source types may describe different stages, scopes or levels of certainty.	Do not force reconciliation. Preserve stage/entity/date distinctions and return to primary records.
X04	Potential tension around hypothesis H4	Different source types may describe different stages, scopes or levels of certainty.	Do not force reconciliation. Preserve stage/entity/date distinctions and return to primary records.

Gap	Type	Missing / excluded evidence	Decision effect	Required closure
G01	Scope-excluded evidence	Electrical engineering design, protection study or grid-code certification.	Could materially change matter-specific answer if the client decision depends on it.	Obtain from client / authoritative custodian before high-consequence reliance.

Gap	Type	Missing / excluded evidence	Decision effect	Required closure
G02	Scope-excluded evidence	A tax opinion, financing commitment or bankable financial model for a named site.	Could materially change matter-specific answer if the client decision depends on it.	Obtain from client / authoritative custodian before high-consequence reliance.
G03	Scope-excluded evidence	Municipality-specific approval unless separately evidenced.	Could materially change matter-specific answer if the client decision depends on it.	Obtain from client / authoritative custodian before high-consequence reliance.
G04	Scope-excluded evidence	Vendor selection, equipment warranty due diligence or EPC contracting.	Could materially change matter-specific answer if the client decision depends on it.	Obtain from client / authoritative custodian before high-consequence reliance.
G05	Non-public operating evidence	Internal contracts, logs, customer records, engineering/technical files or reconciliations are not presumed available in a public demonstration.	Prevents public-source work from certifying private operational performance.	Request and authenticate matter-specific evidence if commissioned.
G06	Specialist validation	No independent specialist opinion is simulated in this public portfolio candidate.	Limits legal/engineering/actuarial/accounting or other reserved-professional conclusions.	Route defined questions to an appropriately qualified specialist.
G07	Right of reply / subject response	No response is assumed unless expressly recorded.	Can matter where adverse or contested factual assertions would be published.	Seek response where fairness/publication policy requires it and record outcome.
G08	Current-status refresh	Fast-moving facts may change after the evidence cut-off.	Can stale otherwise correct findings.	Run a source-freeze refresh immediately before publication or consequential decision.

Completeness standard: there may be genuine public-record limits, but there are no permitted *unacknowledged* material gaps. Every material unresolved dependency must be named, bounded and connected to its decision effect.

7. Risk, failure mode and control register

Risk	Failure mode	Likelihood	Impact	Control
R01	Scope Drift	Medium	High	Tie the decision to C-IDs/S-IDs, preserve contrary evidence, enforce current-status checks and escalate when the decision requires evidence outside the public record.
R02	Market-Level Evidence Mistaken For Project-Level Proof	Medium	High	Tie the decision to C-IDs/S-IDs, preserve contrary evidence, enforce current-status checks and escalate when the decision requires evidence outside the public record.
R03	Stale Regulatory Or Market Data	High	High	Tie the decision to C-IDs/S-IDs, preserve contrary evidence, enforce current-status checks and escalate when the decision requires evidence outside the public record.
R04	Model Assumption Opacity	Medium	High	Tie the decision to C-IDs/S-IDs, preserve contrary evidence, enforce current-status checks and escalate when the decision requires evidence outside the public record.
R05	Source Dependence	Medium	Medium to high	Tie the decision to C-IDs/S-IDs, preserve contrary evidence, enforce current-status checks and escalate when the decision requires evidence outside the public record.
R06	Jurisdictional Mismatch	Medium	High	Tie the decision to C-IDs/S-IDs, preserve contrary evidence, enforce current-status checks and escalate when the decision requires evidence outside the public record.
R07	Commercial Representation Treated As Independent Fact	Medium	High	Tie the decision to C-IDs/S-IDs, preserve contrary evidence, enforce current-status checks and escalate when the decision requires evidence outside the public record.
R08	Missing Non-Public Operating Data	Low to medium	High	Tie the decision to C-IDs/S-IDs, preserve contrary evidence, enforce current-status checks and escalate when the decision requires evidence outside the public record.

8. Decision-transfer and hand-off checklist

- Freeze the exact proposition being relied upon and record its C-ID.
- Open every cited S-ID that carries a material conclusion and confirm source identity / date / scope.
- Confirm no later source has superseded or qualified the proposition after the evidence cut-off.
- Carry the factual status, confidence and reliance status together with the proposition.
- Resolve any G-ID whose decision effect is material to the intended use.
- Do not substitute public evidence for client-specific contracts, records, logs, engineering data or legal instruments when those control the outcome.
- Escalate reserved professional questions to the correct specialist.
- For publication, apply fairness, privacy, copyright and right-of-reply controls where relevant.
- For recurring matters, convert volatile propositions to WATCH triggers rather than relying on a frozen report indefinitely.
- Record the final human approval and exact file hash before release.

9. Research method, reproducibility and evidence discipline

Research is the process; responsible reliance is the product. Discovery may use search, structured extraction and technology-assisted comparison, but model output is never treated as evidence merely because it is fluent or plausible.

Primary-source-first does not mean primary sources are infallible. It means the record starts with the body or entity that has direct authority, custody or first-party knowledge, then tests independence, incentives, methodology, completeness and contradiction.

The current source freeze records URLs, titles, organisations and dates. For a commissioned high-reliance matter, the internal reproducibility package should additionally preserve native files where lawfully available, checksums, extraction notes, calculations, code/dataset versions and transformation logs where quantitative processing is material.

Facts, representation, inference, assumption, forecast, commitment and unresolved question are different evidential objects. The claim matrix keeps them separate and prevents a forecast or company statement from silently becoming an established fact.

Negative evidence is treated cautiously. Absence of a public filing or announcement may matter where such evidence would normally exist, but absence is not automatically proof of the opposite. The gap register records the expected evidence and the consequence of not having it.

Current-status control is mandatory. A proposition that was correct at source date can become stale. The final source-freeze refresh should be repeated immediately before a public release or consequential decision if the subject is fast-moving.

10. Entity and relationship register

ID	Entity / organisation	Evidence role	Established relationship	Boundary
E01	GreenCape	Organisation / evidence origin	Relationship to matter established only to the extent shown by the cited source record.	Do not infer ownership, control, responsibility or contractual privacy beyond the source.
E02	Eskom Distribution	Authoritative / regulatory custodian	Relationship to matter established only to the extent shown by the cited source record.	Do not infer ownership, control, responsibility or contractual privacy beyond the source.
E03	South African Revenue Service	Organisation / evidence origin	Relationship to matter established only to the extent shown by the cited source record.	Do not infer ownership, control, responsibility or contractual privacy beyond the source.
E04	Eskom	Authoritative / regulatory custodian	Relationship to matter established only to the extent shown by the cited source record.	Do not infer ownership, control, responsibility or contractual privacy beyond the source.
E05	NERSA	Authoritative / regulatory custodian	Relationship to matter established only to the extent shown by the cited source record.	Do not infer ownership, control, responsibility or contractual privacy beyond the source.

ID	Entity / organisation	Evidence role	Established relationship	Boundary
E06	City of Cape Town	Organisation / evidence origin	Relationship to matter established only to the extent shown by the cited source record.	Do not infer ownership, control, responsibility or contractual privity beyond the source.
E07	National Energy Regulator / Grid Code Secretariat	Authoritative / regulatory custodian	Relationship to matter established only to the extent shown by the cited source record.	Do not infer ownership, control, responsibility or contractual privity beyond the source.

11. Quantitative, metric and calculation register

Metric	Claim	Number / metric proposition	Calculation status	Control
M01	C01	GreenCape's 2026 renewable-energy market intelligence identifies behind-the-meter solar PV and BESS as an investment opportunity and links demand to energy security, elec	Source-reported unless an explicit calculation is separately stated.	Preserve unit, vintage, population/denominator and whether value is observed, forecast, commitment or nameplate.
M02	C10	The cited record supports this bounded proposition: Full market report supporting current South African renewable-energy opportunity, market structure and investment cont	Source-reported unless an explicit calculation is separately stated.	Preserve unit, vintage, population/denominator and whether value is observed, forecast, commitment or nameplate.
M03	C12	The cited record supports this bounded proposition: Regulatory evidence of active generation registration and aggregate capacity/investment.	Source-reported unless an explicit calculation is separately stated.	Preserve unit, vintage, population/denominator and whether value is observed, forecast, commitment or nameplate.

Reproducibility rule: where Aperture performs a material calculation rather than merely reporting a source figure, the internal work record must preserve the formula, raw inputs, transformations, software/code version and the output used in the conclusion.

12. Evidence acquisition and authentication plan

Evidence class	Acquisition route	Authentication control
Primary legal/regulatory record	Acquire from issuing authority, court, regulator or official register.	Confirm title, issuing body, date, docket/notice/order identifier and current/superseded status.
Company / counterparty representation	Acquire from investor relations, formal filing, company release or official product documentation.	Treat as representation unless independently corroborated; record exact entity and date.
Dataset / statistical record	Acquire from governing data product or authoritative downloadable file.	Record definitions, vintage, units, filters, scenario and revision policy.
Technical standard / specification	Acquire from standards body or authorised publication.	Confirm release/version, scope and whether implementation/conformance is separately evidenced.
Independent contextual source	Acquire from an identifiable publisher with transparent authorship/method.	Use for corroboration or adverse context; trace underlying primary evidence where material.
Client-confidential evidence in a paid matter	Receive through approved secure channel and preserve native metadata where lawful.	Authenticate custodian, completeness, date range, version and relationship to the proposition before reliance.

13. Fairness, privacy, copyright, right-of-reply and specialist controls

Fairness / adverse attribution

Do not publish a contested adverse assertion merely because it appears in one source. Distinguish allegation, finding, order, representation and inference; seek response where proportionate.

Privacy / personal data

Use only information relevant and proportionate to the decision question. Do not expose unnecessary sensitive or personal data in a public portfolio edition.

Copyright

Quote minimally, paraphrase responsibly, link to the source and create original evidence-based tables/diagrams rather than reproducing third-party works unnecessarily.

Right of reply

Record whether a response is required, requested, received, declined or not applicable. Silence is not treated as admission.

Specialist boundary

Legal, engineering, actuarial, accounting, scientific or other reserved determinations are routed to appropriately qualified professionals when the decision requires them.

Information security

A public demonstration contains public-source material only. Commissioned matters require access control, approved storage, retention and legal-hold handling appropriate to the engagement.

14. Current-status, monitoring and change-control plan

Trigger	Monitored custodian	Baseline source	Change condition	Required action
T01	GreenCape	2026 Regional Renewable Energy Market Intelligence Report	New order / filing / dataset revision / policy change / operational update materially affecting a C-ID.	Re-open linked claims, compare old/new record, update chronology and reclassify reliance if needed.
T02	GreenCape	Market Intelligence Report 2026 - Energy	New order / filing / dataset revision / policy change / operational update materially affecting a C-ID.	Re-open linked claims, compare old/new record, update chronology and reclassify reliance if needed.
T03	Eskom Distribution	Small-scale embedded generators	New order / filing / dataset revision / policy change / operational update materially affecting a C-ID.	Re-open linked claims, compare old/new record, update chronology and reclassify reliance if needed.
T04	South African Revenue Service	Solar Tax Rebate	New order / filing / dataset revision / policy change / operational update materially affecting a C-ID.	Re-open linked claims, compare old/new record, update chronology and reclassify reliance if needed.
T05	Eskom	Embedded generation application process	New order / filing / dataset revision / policy change / operational update materially affecting a C-ID.	Re-open linked claims, compare old/new record, update chronology and reclassify reliance if needed.
T06	GreenCape	GreenCape Renewable Energy Market Intelligence Report 2026 - full report	New order / filing / dataset revision / policy change / operational update materially affecting a C-ID.	Re-open linked claims, compare old/new record, update chronology and reclassify reliance if needed.
T07	Eskom	Solar PV registration legal compliance campaign update	New order / filing / dataset revision / policy change / operational update materially affecting a C-ID.	Re-open linked claims, compare old/new record, update chronology and reclassify reliance if needed.
T08	NERSA	NERSA registers 147 generation facilities in Q3 2025/26	New order / filing / dataset revision / policy change / operational update materially affecting a C-ID.	Re-open linked claims, compare old/new record, update chronology and reclassify reliance if needed.

For WATCH products this table is the start of the monitoring specification. For other products it identifies the propositions most likely to stale and the source families that should be checked immediately before decision or publication.

15. Finding-to-decision map

Finding	Claim	Evidence answer	Decision sensitivity	Next step
F1	C01	GreenCape's 2026 renewable-energy market intelligence identifies behind-the-meter solar PV and BESS as an investment opportunity and links demand to e	If weaker than stated, reassess scope, timing, value, control or reliance before proceeding.	Resolve linked gaps and inspect all cited S-IDs.
F2	C02	The available public record supports a bounded answer but not a project- or counterparty-specific certification.	If weaker than stated, reassess scope, timing, value, control or reliance before proceeding.	Resolve linked gaps and inspect all cited S-IDs.
F3	C03	The available public record supports a bounded answer but not a project- or counterparty-specific certification.	If weaker than stated, reassess scope, timing, value, control or reliance before proceeding.	Resolve linked gaps and inspect all cited S-IDs.
F4	C04	The available public record supports a bounded answer but not a project- or counterparty-specific certification.	If weaker than stated, reassess scope, timing, value, control or reliance before proceeding.	Resolve linked gaps and inspect all cited S-IDs.

16. Commissioned-matter extension specification

If this public demonstration becomes a commissioned matter, the following evidence layers would be added before any stronger reliance classification is considered.

Workstream	Commissioned extension
Client decision specification	Named decision-maker, decision date, consequence, alternatives, threshold and what would change the decision.
Non-public evidence inventory	Contracts, data exports, correspondence, operating logs, technical records, board papers, financial models, customer/vendor files and other matter-specific materials.
Native evidence preservation	Original files, metadata, source/custodian, chain-of-custody where material, hashes and controlled working copies.
Entity and authority confirmation	Legal names, registration, ownership/control, office-holders, authority to sign/represent, and the exact entity connected to each claim.
Counterparty / subject representations	Freeze exact management/customer/vendor statements and test them separately against authoritative and independent evidence.
Specialist workstreams	Defined legal, engineering, actuarial, accounting, scientific, technical or forensic questions routed to qualified reviewers where needed.
Adversarial review	Independent hostile-scrutiny pass against the central conclusion, including steelman of the strongest contrary case.
Final reliance memo	A concise transfer document stating what is established, what remains conditional, what cannot be responsibly relied upon, and which controls must remain in place.

DOCUMENT 2

Claims-and-Evidence Matrix

The matrix converts narrative into controlled propositions so that each decision-relevant statement can be traced, challenged and carried forward with the correct reliance boundary.

How to use this document

- Use this matrix to test proposition-by-proposition support.
- A claim with Conditional reliance must travel with its qualification.
- A Company-represented fact cannot silently become an independently established fact.
- Negative, unknown and contradicted propositions are preserved rather than deleted.

Evidence-chain reading rule

Source (S-ID) -> proposition (C-ID) -> factual status -> evidential confidence -> reliance status -> decision effect. If any link in that chain is missing, the proposition is not permitted to carry high-consequence reliance.

Matrix control summary

Controlled propositions	20
Evidence sources	14
Claims without Source IDs	0
Negative / boundary propositions	Preserved explicitly
Three-axis classification	Factual Status Evidential Confidence Reliance Status
Rule	No proposition may be upgraded because it is repeated in derivative sources.

Interpretation guide

Axis	Meaning
Factual status	What kind of proposition is this? Established institutional record, organisation representation, supported/contextual, not established, contradicted or unknown.
Evidential confidence	How strong is the evidence for the bounded proposition, after authority, independence, recency, completeness and contradiction are considered?

Axis	Meaning
Reliance status	What may the intended user responsibly do with it? Direct within scope, conditional, orientation only, or do not rely.
Qualification	What must travel with the proposition to prevent overstatement or category error?

ID	Proposition	Factual status	Confidence	Reliance	Source IDs	Qualification
C01	GreenCape's 2026 renewable-energy market intelligence identifies behind-the-meter solar PV and BESS as an investment opportunity and links demand to energy security, electricity costs and decarbonisation pressure.	Supported by current record	High	Conditional - carry stated scope and qualifications	S01, S02, S03	Matter-specific non-public evidence may be required before transaction/operating reliance.
C02	The available public record supports a bounded answer but not a project- or counterparty-specific certification.	Supported by current record	High	Conditional - carry stated scope and qualifications	S01, S02, S03	Matter-specific non-public evidence may be required before transaction/operating reliance.
C03	The available public record supports a bounded answer but not a project- or counterparty-specific certification.	Supported by current record	Moderate to high	Conditional - carry stated scope and qualifications	S01, S02, S03	Matter-specific non-public evidence may be required before transaction/operating reliance.
C04	The available public record supports a bounded answer but not a project- or counterparty-specific certification.	Supported by current record	Moderate to high	Conditional - carry stated scope and qualifications	S01, S02, S03	Matter-specific non-public evidence may be required before transaction/operating reliance.
C05	The cited record supports this bounded proposition: Market structure, BTM solar/BESS opportunity and enabling conditions	Supported / contextual	Moderate	Conditional	S01	Regional market intelligence; project-level economics remain outside scope
C06	The cited record supports this bounded proposition: Detailed discussion of electricity landscape, BTM solar PV/BESS and market risks	Supported / contextual	Moderate	Conditional	S02	Report is market-level, not a site feasibility study
C07	The cited record supports this bounded proposition: Registration and technical-document requirements for SSEG connected to Eskom	Established in cited institutional record	High	Direct within stated scope	S03	Applies to Eskom-connected systems; municipal rules may differ
C08	The cited record supports this bounded proposition: Shows the limited scope of the historical residential solar tax rebate	Supported / contextual	Moderate	Conditional	S04	Residential and historical; not a commercial-project tax opinion
C09	The cited record supports this bounded proposition: Application and connection process	Established in cited institutional record	High	Direct within stated scope	S05	Project-specific acceptance remains required.
C10	The cited record supports this bounded proposition: Full market report supporting current South African renewable-energy opportunity, market structure and investment context.	Supported / contextual	Moderate	Conditional	S06	Market-level evidence does not establish site-specific load, tariff, connection approval, design or return
C11	The cited record supports this bounded proposition: Current Eskom compliance campaign and support for registration of embedded generation.	Established in cited institutional record	High	Direct within stated scope	S07	Applies to Eskom-connected customers; municipal processes must be checked separately.
C12	The cited record supports this bounded proposition: Regulatory evidence of active generation registration and aggregate capacity/investment.	Established in cited institutional record	High	Direct within stated scope	S08	Aggregate registrations do not prove particular site is registered, financially or technically compliant.
C13	The cited record supports this bounded proposition: Regulatory context for electricity licensing, registration and oversight.	Established in cited institutional record	High	Direct within stated scope	S09	General regulatory context is not a substitute for project-specific legal advice or distributor approval.
C14	The cited record supports this bounded proposition: Official tariff and charge materials relevant to project economics and demand/energy charges.	Established in cited institutional record	High	Direct within stated scope	S10	Tariff page does not calculate a named customer bill or future tariff escalation
C15	The cited record supports this bounded proposition: Municipal example demonstrating that distributor-specific SSEG processes differ from Eskom processes.	Supported / contextual	Moderate	Conditional	S11	Cape Town requirements are not national requirements and do not apply to every municipality.
C16	The cited record supports this bounded proposition: Institutional context for electricity-sector regulation and registration.	Established in cited institutional record	High	Direct within stated scope	S12	General regulator material does not establish a named project approval.
C17	The cited record supports this bounded proposition: Technical-regulatory context for grid-connected generation and system requirements.	Established in cited institutional record	High	Direct within stated scope	S13	Applicability and exact code requirements depend on facility type, size and connection point.

ID	Proposition	Factual status	Confidence	Reliance	Source IDs	Qualification
C18	The cited record supports this bounded proposition: Additional independent market context on behind-the-meter energy services and commercial adoption.	Supported / contextual	Moderate	Conditional	S14	Market resources do not substitute for site-specific engineering or finance.
C19	The public market record does not establish the economics, approvals or operating performance of an unnamed specific project.	Not established / boundary control	High	Do not rely beyond stated boundary	S01, S02, S03, S04	This negative proposition protects against overclaiming and defines the reliance boundary.
C20	A broad market trend cannot be relied on as a substitute for current project-specific evidence.	Not established / boundary control	High	Do not rely beyond stated boundary	S01, S02, S03, S04	This negative proposition protects against overclaiming and defines the reliance boundary.

Traceability test

- Every C-ID has at least one S-ID.
- Every material finding on the executive pages maps to a C-ID.
- Every S-ID states what it supports and what it does not prove.
- Negative propositions retain negative status; they are not upgraded by keyword or narrative convenience.
- Where multiple sources depend on one underlying record, the source-dependence note prevents false corroboration.

Proposition evidence cards

The matrix above is compact. The cards below expand every controlled proposition so a reviewer can inspect the support, boundary and falsification path without reconstructing the logic from narrative prose.

C01 - Controlled proposition

GreenCape's 2026 renewable-energy market intelligence identifies behind-the-meter solar PV and BESS as an investment opportunity and links demand to energy security, electricity costs and decarbonisation pressure.

Factual status	Supported by current record
Evidential confidence	High
Reliance status	Conditional - carry stated scope and qualifications
Supporting sources	S01 - 2026 Regional Renewable Energy Market Intelligence Report; S02 - Market Intelligence Report 2026 - Energy; S03 - Small-scale embedded generators
Qualification / boundary	Matter-specific non-public evidence may be required before transaction/operating reliance.

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C02 - Controlled proposition

The available public record supports a bounded answer but not a project- or counterparty-specific certification.

Factual status	Supported by current record
Evidential confidence	High
Reliance status	Conditional - carry stated scope and qualifications
Supporting sources	S01 - 2026 Regional Renewable Energy Market Intelligence Report; S02 - Market Intelligence Report 2026 - Energy; S03 - Small-scale embedded generators
Qualification / boundary	Matter-specific non-public evidence may be required before transaction/operating reliance.

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C03 - Controlled proposition

The available public record supports a bounded answer but not a project- or counterparty-specific certification.

Factual status	Supported by current record
Evidential confidence	Moderate to high
Reliance status	Conditional - carry stated scope and qualifications
Supporting sources	S01 - 2026 Regional Renewable Energy Market Intelligence Report; S02 - Market Intelligence Report 2026 - Energy; S03 - Small-scale embedded generators
Qualification / boundary	Matter-specific non-public evidence may be required before transaction/operating reliance.

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C04 - Controlled proposition

The available public record supports a bounded answer but not a project- or counterparty-specific certification.

Factual status	Supported by current record
Evidential confidence	Moderate to high
Reliance status	Conditional - carry stated scope and qualifications
Supporting sources	S01 - 2026 Regional Renewable Energy Market Intelligence Report; S02 - Market Intelligence Report 2026 - Energy; S03 - Small-scale embedded generators
Qualification / boundary	Matter-specific non-public evidence may be required before transaction/operating reliance.

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C05 - Controlled proposition

The cited record supports this bounded proposition: Market structure, BTM solar/BESS opportunity and enabling conditions

Factual status	Supported / contextual
Evidential confidence	Moderate
Reliance status	Conditional
Supporting sources	S01 - 2026 Regional Renewable Energy Market Intelligence Report
Qualification / boundary	Regional market intelligence; project-level economics remain outside scope

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C06 - Controlled proposition

The cited record supports this bounded proposition: Detailed discussion of electricity landscape, BTM solar PV/BESS and market risks

Factual status	Supported / contextual
Evidential confidence	Moderate
Reliance status	Conditional
Supporting sources	S02 - Market Intelligence Report 2026 - Energy
Qualification / boundary	Report is market-level, not a site feasibility study

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C07 - Controlled proposition

The cited record supports this bounded proposition: Registration and technical-document requirements for SSEG connected to Eskom

Factual status	Established in cited institutional record
Evidential confidence	High
Reliance status	Direct within stated scope
Supporting sources	S03 - Small-scale embedded generators
Qualification / boundary	Applies to Eskom-connected systems; municipal rules may differ

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C08 - Controlled proposition

The cited record supports this bounded proposition: Shows the limited scope of the historical residential solar tax rebate

Factual status	Supported / contextual
Evidential confidence	Moderate
Reliance status	Conditional
Supporting sources	S04 - Solar Tax Rebate
Qualification / boundary	Residential and historical; not a commercial-project tax opinion

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C09 - Controlled proposition

The cited record supports this bounded proposition: Application and connection process

Factual status	Established in cited institutional record
Evidential confidence	High
Reliance status	Direct within stated scope
Supporting sources	S05 - Embedded generation application process
Qualification / boundary	Project-specific acceptance remains required.

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C10 - Controlled proposition

The cited record supports this bounded proposition: Full market report supporting current South African renewable-energy opportunity, market structure and investment context.

Factual status	Supported / contextual
Evidential confidence	Moderate
Reliance status	Conditional
Supporting sources	S06 - GreenCape Renewable Energy Market Intelligence Report 2026 - full report
Qualification / boundary	Market-level evidence does not establish site-specific load, tariff, connection approval, design or return.

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C11 - Controlled proposition

The cited record supports this bounded proposition: Current Eskom compliance campaign and support for registration of embedded generation.

Factual status	Established in cited institutional record
Evidential confidence	High
Reliance status	Direct within stated scope
Supporting sources	S07 - Solar PV registration legal compliance campaign update
Qualification / boundary	Applies to Eskom-connected customers; municipal processes must be checked separately.

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C12 - Controlled proposition

The cited record supports this bounded proposition: Regulatory evidence of active generation registration and aggregate capacity/investment.

Factual status	Established in cited institutional record
Evidential confidence	High
Reliance status	Direct within stated scope
Supporting sources	S08 - NERSA registers 147 generation facilities in Q3 2025/26
Qualification / boundary	Aggregate registrations do not prove a particular site is registered, financeable or technically compliant.

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C13 - Controlled proposition

The cited record supports this bounded proposition: Regulatory context for electricity licensing, registration and oversight.

Factual status	Established in cited institutional record
Evidential confidence	High
Reliance status	Direct within stated scope
Supporting sources	S09 - Electricity regulation overview
Qualification / boundary	General regulatory context is not a substitute for project-specific legal advice or distributor approval.

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C14 - Controlled proposition

The cited record supports this bounded proposition: Official tariff and charge materials relevant to project economics and demand/energy charges.

Factual status	Established in cited institutional record
Evidential confidence	High
Reliance status	Direct within stated scope
Supporting sources	S10 - Eskom tariffs and charges
Qualification / boundary	Tariff page does not calculate a named customer bill or future tariff escalation.

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C15 - Controlled proposition

The cited record supports this bounded proposition: Municipal example demonstrating that distributor-specific SSEG processes differ from Eskom processes.

Factual status	Supported / contextual
Evidential confidence	Moderate
Reliance status	Conditional
Supporting sources	S11 - City of Cape Town small-scale embedded generation application
Qualification / boundary	Cape Town requirements are not national requirements and do not apply to every municipality.

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C16 - Controlled proposition

The cited record supports this bounded proposition: Institutional context for electricity-sector regulation and registration.

Factual status	Established in cited institutional record
Evidential confidence	High
Reliance status	Direct within stated scope
Supporting sources	S12 - NERSA electricity industry regulation
Qualification / boundary	General regulator material does not establish a named project approval.

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C17 - Controlled proposition

The cited record supports this bounded proposition: Technical-regulatory context for grid-connected generation and system requirements.

Factual status	Established in cited institutional record
Evidential confidence	High
Reliance status	Direct within stated scope
Supporting sources	S13 - South African Grid Code
Qualification / boundary	Applicability and exact code requirements depend on facility type, size and connection point.

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C18 - Controlled proposition

The cited record supports this bounded proposition: Additional independent market context on behind-the-meter energy services and commercial adoption.

Factual status	Supported / contextual
Evidential confidence	Moderate
Reliance status	Conditional
Supporting sources	S14 - GreenCape Energy Services market resources

Qualification / boundary	Market resources do not substitute for site-specific engineering or finance.
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Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C19 - Controlled proposition

The public market record does not establish the economics, approvals or operating performance of an unnamed specific project.

Factual status	Not established / boundary control
Evidential confidence	High
Reliance status	Do not rely beyond stated boundary
Supporting sources	S01 - 2026 Regional Renewable Energy Market Intelligence Report; S02 - Market Intelligence Report 2026 - Energy; S03 - Small-scale embedded generators; S04 - Solar Tax Rebate
Qualification / boundary	This negative proposition protects against overclaiming and defines the reliance boundary.

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

C20 - Controlled proposition

A broad market trend cannot be relied on as a substitute for current project-specific evidence.

Factual status	Not established / boundary control
Evidential confidence	High
Reliance status	Do not rely beyond stated boundary
Supporting sources	S01 - 2026 Regional Renewable Energy Market Intelligence Report; S02 - Market Intelligence Report 2026 - Energy; S03 - Small-scale embedded generators; S04 - Solar Tax Rebate
Qualification / boundary	This negative proposition protects against overclaiming and defines the reliance boundary.

Adversarial test: identify the strongest evidence that would make this proposition narrower, stale, false or irrelevant to the intended decision. If that evidence becomes available, the proposition must be re-opened before reuse.

DOCUMENT 3

Master Chronology

Chronology protects against temporal category errors: announcement is not completion, an older status is not a current status, and a later corrective record can change reliance.

How to use this document

- Use chronology to distinguish what was known when from later corrective evidence.
- Dates are evidence controls: later events can supersede, qualify or invalidate an earlier conclusion.
- For WATCH matters, chronology also becomes the baseline against which triggers are monitored.

Evidence-chain reading rule

Source (S-ID) -> proposition (C-ID) -> factual status -> evidential confidence -> reliance status -> decision effect. If any link in that chain is missing, the proposition is not permitted to carry high-consequence reliance.

Chronology construction rule

Dates below derive from the controlled source register. Where a source date is broad or the record is accessed rather than event-dated, the chronology labels that limitation rather than inventing a precise date.

Date / vintage	Source	Event / record	Why it matters	Class
updated 19 Jul 2024	S04	Solar Tax Rebate	Shows the limited scope of the historical residential solar tax rebate	Baseline / event / update
14 Jan 2026	S07	Solar PV registration legal compliance campaign update	Current Eskom compliance campaign and support for registration of embedded generation.	Baseline / event / update
18 Mar 2026	S01	2026 Regional Renewable Energy Market Intelligence Report	Market structure, BTM solar/BESS opportunity and enabling conditions	Baseline / event / update
18 Mar 2026	S06	GreenCape Renewable Energy Market Intelligence Report 2026 - full report	Full market report supporting current South African renewable-energy opportunity, market structure and investment context.	Baseline / event / update
2026	S02	Market Intelligence Report 2026 - Energy	Detailed discussion of electricity landscape, BTM solar PV/BESS and market risks	Baseline / event / update
2026 tariff context	S10	Eskom tariffs and charges	Official tariff and charge materials relevant to project economics and demand/energy charges.	Baseline / event / update
30 Jan 2026	S08	NERSA registers 147 generation facilities in Q3 2025/26	Regulatory evidence of active generation registration and aggregate capacity/investment.	Baseline / event / update
Accessed 8 Sep 2026	S09	Electricity regulation overview	Regulatory context for electricity licensing, registration and oversight.	Baseline / event / update
Current	S11	City of Cape Town small-scale embedded generation application	Municipal example demonstrating that distributor-specific SSEG processes differ from Eskom processes.	Baseline / event / update
Current	S12	NERSA electricity industry regulation	Institutional context for electricity-sector regulation and registration.	Baseline / event / update
Current	S14	GreenCape Energy Services market resources	Additional independent market context on behind-the-meter energy services and commercial adoption.	Baseline / event / update
Current reference	S13	South African Grid Code	Technical-regulatory context for grid-connected generation and system requirements.	Baseline / event / update
current	S03	Small-scale embedded generators	Registration and technical-document requirements for SSEG connected to Eskom	Baseline / event / update
current	S05	Embedded generation application process	Application and connection process	Baseline / event / update

Chronology evidence notes

updated 19 Jul 2024 | S04 | Solar Tax Rebate

Shows the limited scope of the historical residential solar tax rebate

Chronology control: this entry establishes only the state/event evidenced by the cited record at that date or vintage. It does not silently establish later completion, continuing validity or an unrelated decision proposition.

14 Jan 2026 | S07 | Solar PV registration legal compliance campaign update

Current Eskom compliance campaign and support for registration of embedded generation.

Chronology control: this entry establishes only the state/event evidenced by the cited record at that date or vintage. It does not silently establish later completion, continuing validity or an unrelated decision proposition.

18 Mar 2026 | S01 | 2026 Regional Renewable Energy Market Intelligence Report

Market structure, BTM solar/BESS opportunity and enabling conditions

Chronology control: this entry establishes only the state/event evidenced by the cited record at that date or vintage. It does not silently establish later completion, continuing validity or an unrelated decision proposition.

18 Mar 2026 | S06 | GreenCape Renewable Energy Market Intelligence Report 2026 - full report

Full market report supporting current South African renewable-energy opportunity, market structure and investment context.

Chronology control: this entry establishes only the state/event evidenced by the cited record at that date or vintage. It does not silently establish later completion, continuing validity or an unrelated decision proposition.

2026 | S02 | Market Intelligence Report 2026 - Energy

Detailed discussion of electricity landscape, BTM solar PV/BESS and market risks

Chronology control: this entry establishes only the state/event evidenced by the cited record at that date or vintage. It does not silently establish later completion, continuing validity or an unrelated decision proposition.

2026 tariff context | S10 | Eskom tariffs and charges

Official tariff and charge materials relevant to project economics and demand/energy charges.

Chronology control: this entry establishes only the state/event evidenced by the cited record at that date or vintage. It does not silently establish later completion, continuing validity or an unrelated decision proposition.

30 Jan 2026 | S08 | NERSA registers 147 generation facilities in Q3 2025/26

Regulatory evidence of active generation registration and aggregate capacity/investment.

Chronology control: this entry establishes only the state/event evidenced by the cited record at that date or vintage. It does not silently establish later completion, continuing validity or an unrelated decision proposition.

Accessed 8 Sep 2026 | S09 | Electricity regulation overview

Regulatory context for electricity licensing, registration and oversight.

Chronology control: this entry establishes only the state/event evidenced by the cited record at that date or vintage. It does not silently establish later completion, continuing validity or an unrelated decision proposition.

Current | S11 | City of Cape Town small-scale embedded generation application

Municipal example demonstrating that distributor-specific SSEG processes differ from Eskom processes.

Chronology control: this entry establishes only the state/event evidenced by the cited record at that date or vintage. It does not silently establish later completion, continuing validity or an unrelated decision proposition.

Current | S12 | NERSA electricity industry regulation

Institutional context for electricity-sector regulation and registration.

Chronology control: this entry establishes only the state/event evidenced by the cited record at that date or vintage. It does not silently establish later completion, continuing validity or an unrelated decision proposition.

Current | S14 | GreenCape Energy Services market resources

Additional independent market context on behind-the-meter energy services and commercial adoption.

Chronology control: this entry establishes only the state/event evidenced by the cited record at that date or vintage. It does not silently establish later completion, continuing validity or an unrelated decision proposition.

Current reference | S13 | South African Grid Code

Technical-regulatory context for grid-connected generation and system requirements.

Chronology control: this entry establishes only the state/event evidenced by the cited record at that date or vintage. It does not silently establish later completion, continuing validity or an unrelated decision proposition.

current | S03 | Small-scale embedded generators

Registration and technical-document requirements for SSEG connected to Eskom

Chronology control: this entry establishes only the state/event evidenced by the cited record at that date or vintage. It does not silently establish later completion, continuing validity or an unrelated decision proposition.

current | S05 | Embedded generation application process

Application and connection process

Chronology control: this entry establishes only the state/event evidenced by the cited record at that date or vintage. It does not silently establish later completion, continuing validity or an unrelated decision proposition.

Temporal reliance controls

- Do not use a historical policy, financing or capacity statement as if it described the current operating state.

- When an update changes a forecast rather than an observation, preserve both vintages and state which number is current.
- For litigation, regulatory or administrative processes, distinguish allegation, proposal, filing, order, appeal, approval and completion.
- For WATCH matters, the latest chronology entry is the monitoring baseline, not proof that nothing changed after the evidence cut-off.

DOCUMENT 4

Source and Evidence Register

The source register exposes where every important proposition comes from, the role of the source, its limitations and the level of independence the source can actually provide.

How to use this document

- Use this register to inspect authority, independence, recency, limitations and source dependence.
- Every material source has a visible URL and a source role.
- A source is never treated as stronger than its provenance, mandate or direct knowledge permits.

Evidence-chain reading rule

Source (S-ID) -> proposition (C-ID) -> factual status -> evidential confidence -> reliance status -> decision effect. If any link in that chain is missing, the proposition is not permitted to carry high-consequence reliance.

Source-control principles

- Primary and authoritative records are preferred for legal status, regulation, filings, formal approvals and official datasets.
- Organisation-primary sources are used to establish what the organisation represented, disclosed or announced; they are not automatically independent proof of performance.
- Independent secondary sources are used for corroboration, context or adverse evidence, never to overwrite a stronger primary record without explanation.
- URLs are shown in full and made clickable. Access date is controlled at the package level unless a more specific source date is available.
- A source is not counted twice merely because the same underlying document appears through a mirror, press release and derivative article.

Source-dependence register

Domain / custodian	Source IDs	Dependence control
greencape.co.za	S01, S02, S06, S14	Same-domain records checked for distinct document/event scope; not treated as independent corroboration merely because multiple URLs exist.
www.eskom.co.za	S03, S05, S07, S10	Same-domain records checked for distinct document/event scope; not treated as independent corroboration merely because multiple URLs exist.
www.sars.gov.za	S04	Same-domain records checked for distinct document/event scope; not treated as independent corroboration merely because multiple URLs exist.
www.nersa.org.za	S08, S09, S12, S13	Same-domain records checked for distinct document/event scope; not treated as independent corroboration merely because multiple URLs exist.
www.capetown.gov.za	S11	Same-domain records checked for distinct document/event scope; not treated as independent corroboration merely because multiple URLs exist.

Evidence quality assessment

Source	Authority	Independence	Authenticity control	Recency	Quality	Reliance note
S01	Medium	Independent / contextual	URL/custodian recorded	Current / controlled vintage	Moderate	Use only for the bounded proposition stated in the register.
S02	Medium	Independent / contextual	URL/custodian recorded	Current / controlled vintage	Moderate	Use only for the bounded proposition stated in the register.
S03	High	Institutional / direct	URL/custodian recorded	Current / controlled vintage	High	Use only for the bounded proposition stated in the register.
S04	Medium	Independent / contextual	URL/custodian recorded	Historical - retained for chronology	Moderate	Use only for the bounded proposition stated in the register.
S05	High	Institutional / direct	URL/custodian recorded	Current / controlled vintage	High	Use only for the bounded proposition stated in the register.
S06	Medium	Independent / contextual	URL/custodian recorded	Current / controlled vintage	Moderate	Use only for the bounded proposition stated in the register.
S07	High	Institutional / direct	URL/custodian recorded	Current / controlled vintage	High	Use only for the bounded proposition stated in the register.
S08	High	Institutional / direct	URL/custodian recorded	Current / controlled vintage	High	Use only for the bounded proposition stated in the register.
S09	High	Institutional / direct	URL/custodian recorded	Current / controlled vintage	High	Use only for the bounded proposition stated in the register.
S10	High	Institutional / direct	URL/custodian recorded	Current / controlled vintage	High	Use only for the bounded proposition stated in the register.
S11	Medium	Independent / contextual	URL/custodian recorded	Current / controlled vintage	Moderate	Use only for the bounded proposition stated in the register.
S12	High	Institutional / direct	URL/custodian recorded	Current / controlled vintage	High	Use only for the bounded proposition stated in the register.
S13	High	Institutional / direct	URL/custodian recorded	Current / controlled vintage	High	Use only for the bounded proposition stated in the register.
S14	Medium	Independent / contextual	URL/custodian recorded	Current / controlled vintage	Moderate	Use only for the bounded proposition stated in the register.

Detailed evidence register

S01 - 2026 Regional Renewable Energy Market Intelligence Report

Organisation / custodian	GreenCape
Date / vintage	18 Mar 2026
Source class	Independent / contextual
Authority / confidence	Moderate
Evidence use	Market structure, BTM solar/BESS opportunity and enabling conditions
Material limitation	Regional market intelligence; project-level economics remain outside scope
Accessed	8 September 2026
Supported C-IDs	C01, C02, C03, C04, C05, C19, C20

Visible source URL

<https://greencape.co.za/library/2026-renewable-energy-market-intelligence-report/>

S02 - Market Intelligence Report 2026 - Energy

Organisation / custodian	GreenCape
Date / vintage	2026
Source class	Independent / contextual
Authority / confidence	Moderate
Evidence use	Detailed discussion of electricity landscape, BTM solar PV/BESS and market risks
Material limitation	Report is market-level, not a site feasibility study
Accessed	8 September 2026
Supported C-IDs	C01, C02, C03, C04, C06, C19, C20

Visible source URL

https://greencape.co.za/wp-content/uploads/2026/03/Energy-MIR_2026.pdf

S03 - Small-scale embedded generators

Organisation / custodian	Eskom Distribution
Date / vintage	current
Source class	Authoritative / institutional primary
Authority / confidence	High
Evidence use	Registration and technical-document requirements for SSEG connected to Eskom
Material limitation	Applies to Eskom-connected systems; municipal rules may differ
Accessed	8 September 2026
Supported C-IDs	C01, C02, C03, C04, C07, C19, C20

Visible source URL

<https://www.eskom.co.za/distribution/small-scale-embedded-generators/>

S04 - Solar Tax Rebate

Organisation / custodian	South African Revenue Service
Date / vintage	updated 19 Jul 2024
Source class	Independent / contextual
Authority / confidence	Moderate
Evidence use	Shows the limited scope of the historical residential solar tax rebate
Material limitation	Residential and historical; not a commercial-project tax opinion
Accessed	8 September 2026
Supported C-IDs	C08, C19, C20

Visible source URL

<https://www.sars.gov.za/types-of-tax/personal-income-tax/filing-season/solar-tax-rebate/>

S05 - Embedded generation application process

Organisation / custodian	Eskom
Date / vintage	current
Source class	Authoritative / institutional primary
Authority / confidence	High
Evidence use	Application and connection process
Material limitation	Project-specific acceptance remains required.
Accessed	8 September 2026
Supported C-IDs	C09

Visible source URL

<https://www.eskom.co.za/eas/embedded-generation-application-process/>

S06 - GreenCape Renewable Energy Market Intelligence Report 2026 - full report

Organisation / custodian	GreenCape
Date / vintage	18 Mar 2026
Source class	Independent / contextual
Authority / confidence	Moderate
Evidence use	Full market report supporting current South African renewable-energy opportunity, market structure and investment context.
Material limitation	Market-level evidence does not establish site-specific load, tariff, connection approval, design or return.
Accessed	8 September 2026
Supported C-IDs	C10

Visible source URL

<https://greencape.co.za/wp-content/uploads/2026/06/Renewable-Energy-MIR-2026-Digital.pdf>

S07 - Solar PV registration legal compliance campaign update

Organisation / custodian	Eskom
Date / vintage	14 Jan 2026
Source class	Authoritative / institutional primary
Authority / confidence	High
Evidence use	Current Eskom compliance campaign and support for registration of embedded generation.
Material limitation	Applies to Eskom-connected customers; municipal processes must be checked separately.
Accessed	8 September 2026
Supported C-IDs	C11

Visible source URL

<https://www.eskom.co.za/solar-pv-registration-legal-compliance-campaign-update-act-now-stay-legal-stay-safe-eskom-continues-to-provide-up-to-r10000-assistance/>

S08 - NERSA registers 147 generation facilities in Q3 2025/26

Organisation / custodian	NERSA
Date / vintage	30 Jan 2026
Source class	Authoritative / institutional primary
Authority / confidence	High
Evidence use	Regulatory evidence of active generation registration and aggregate capacity/investment.
Material limitation	Aggregate registrations do not prove a particular site is registered, financeable or technically compliant.
Accessed	8 September 2026
Supported C-IDs	C12

Visible source URL

<https://www.nersa.org.za/files/files/2026/01/MediaStatement-NERSAregisters147generationfacilitiesin3rdquarterof2025-26.pdf>

S09 - Electricity regulation overview

Organisation / custodian	NERSA
Date / vintage	Accessed 8 Sep 2026
Source class	Authoritative / institutional primary
Authority / confidence	High
Evidence use	Regulatory context for electricity licensing, registration and oversight.
Material limitation	General regulatory context is not a substitute for project-specific legal advice or distributor approval.
Accessed	8 September 2026
Supported C-IDs	C13

Visible source URL

<https://www.nersa.org.za/electricity-overview/>

S10 - Eskom tariffs and charges

Organisation / custodian	Eskom
Date / vintage	2026 tariff context
Source class	Authoritative / institutional primary
Authority / confidence	High
Evidence use	Official tariff and charge materials relevant to project economics and demand/energy charges.
Material limitation	Tariff page does not calculate a named customer bill or future tariff escalation.
Accessed	8 September 2026
Supported C-IDs	C14

Visible source URL

<https://www.eskom.co.za/distribution/tariffs-and-charges/>

S11 - City of Cape Town small-scale embedded generation application

Organisation / custodian	City of Cape Town
Date / vintage	Current
Source class	Independent / contextual
Authority / confidence	Moderate
Evidence use	Municipal example demonstrating that distributor-specific SSEG processes differ from Eskom processes.
Material limitation	Cape Town requirements are not national requirements and do not apply to every municipality.
Accessed	8 September 2026
Supported C-IDs	C15

Visible source URL

<https://www.capetown.gov.za/City-Connect/Apply/Municipal-services/Electricity/apply-to-install-a-small-scale-embedded-generation-system>

S12 - NERSA electricity industry regulation

Organisation / custodian	NERSA
Date / vintage	Current
Source class	Authoritative / institutional primary
Authority / confidence	High
Evidence use	Institutional context for electricity-sector regulation and registration.
Material limitation	General regulator material does not establish a named project approval.
Accessed	8 September 2026
Supported C-IDs	C16

Visible source URL

<https://www.nersa.org.za/electricity/>

S13 - South African Grid Code

Organisation / custodian	National Energy Regulator / Grid Code Secretariat
Date / vintage	Current reference
Source class	Authoritative / institutional primary
Authority / confidence	High
Evidence use	Technical-regulatory context for grid-connected generation and system requirements.
Material limitation	Applicability and exact code requirements depend on facility type, size and connection point.
Accessed	8 September 2026
Supported C-IDs	C17

Visible source URL

<https://www.nersa.org.za/electricity-overview/south-african-grid-code/>

S14 - GreenCape Energy Services market resources

Organisation / custodian	GreenCape
Date / vintage	Current
Source class	Independent / contextual
Authority / confidence	Moderate
Evidence use	Additional independent market context on behind-the-meter energy services and commercial adoption.
Material limitation	Market resources do not substitute for site-specific engineering or finance.
Accessed	8 September 2026
Supported C-IDs	C18

Visible source URL

<https://greencape.co.za/market-intelligence/>

Linked Aperture methodology references

Methodology

<https://www.apertureforensic.com/methodology.html>

Evidence standards

<https://www.apertureforensic.com/evidence-standards.html>

Evidence lineage

<https://www.apertureforensic.com/evidence-lineage.html>

Reliance boundary

<https://www.apertureforensic.com/reliance-boundary.html>

Selected Work

<https://www.apertureforensic.com/selected-work.html>

Search

<https://www.apertureforensic.com/search.html>

Languages

<https://www.apertureforensic.com/languages.html>

Enquiry

<https://www.apertureforensic.com/enquiry.html>

LinkedIn

<https://www.linkedin.com/in/paul-hattingh-79568729>

DOCUMENT 5

Public Portfolio Edition

This controlled public-facing edition demonstrates what the product achieves without reducing the answer to marketing copy or stripping away material limitations.

How to use this document

- This is the concise public-facing version of the evidence answer.
- It preserves material caveats and does not replace the full dossier for consequential reliance.
- It demonstrates the product outcome without exposing confidential client or internal work-product data.

Evidence-chain reading rule

Source (S-ID) -> proposition (C-ID) -> factual status -> evidential confidence -> reliance status -> decision effect. If any link in that chain is missing, the proposition is not permitted to carry high-consequence reliance.

South African Commercial Solar & Battery Storage

Find the answer. Build a bounded, source-traceable answer from fragmented public evidence.

Question

What does the current public record support about commercial solar PV and behind-the-meter battery storage in South Africa?

Answer supported by the public record

The public record supports a substantial and active market for distributed renewable-energy solutions, including behind-the-meter solar PV and battery storage. But project economics and execution remain highly site-specific. Grid connection, embedded-generation registration, tariff structure, technical compliance and the customer load profile can materially change the answer.

What is established or supported

- GreenCape's 2026 renewable-energy market intelligence identifies behind-the-meter solar PV and BESS as an investment opportunity and links demand to energy security, electricity costs and decarbonisation pressure.
- The available public record supports a bounded answer but not a project- or counterparty-specific certification.
- The available public record supports a bounded answer but not a project- or counterparty-specific certification.
- The available public record supports a bounded answer but not a project- or counterparty-specific certification.

What remains conditional

- G01 - Electrical engineering design, protection study or grid-code certification. Decision effect: Could materially change matter-specific answer if the client decision depends on it.
- G02 - A tax opinion, financing commitment or bankable financial model for a named site. Decision effect: Could materially change matter-specific answer if the client decision depends on it.
- G03 - Municipality-specific approval unless separately evidenced. Decision effect: Could materially change matter-specific answer if the client decision depends on it.
- G04 - Vendor selection, equipment warranty due diligence or EPC contracting. Decision effect: Could materially change matter-specific answer if the client decision depends on it.
- G05 - Internal contracts, logs, customer records, engineering/technical files or reconciliations are not presumed available in a public demonstration. Decision effect: Prevents public-source work from certifying private operational performance.

Why this matters to a buyer / decision-maker

The value is a bounded answer that converts an open-ended research problem into decision-ready propositions, with source lineage visible enough for another professional to inspect.

Decision-use summary

- C01: GreenCape's 2026 renewable-energy market intelligence identifies behind-the-meter solar PV and BESS as an investment opportunity and links demand to energy security, electricity costs and decarbonisation pressure. [Conditional - carry stated scope and qualifications]
- C02: The available public record supports a bounded answer but not a project- or counterparty-specific certification. [Conditional - carry stated scope and qualifications]
- C03: The available public record supports a bounded answer but not a project- or counterparty-specific certification. [Conditional - carry stated scope and qualifications]
- C04: The available public record supports a bounded answer but not a project- or counterparty-specific certification. [Conditional - carry stated scope and qualifications]
- C05: The cited record supports this bounded proposition: Market structure, BTM solar/BESS opportunity and enabling conditions [Conditional]
- C06: The cited record supports this bounded proposition: Detailed discussion of electricity landscape, BTM solar PV/BESS and market risks [Conditional]

- C07: The cited record supports this bounded proposition: Registration and technical-document requirements for SSEG connected to Eskom [Direct within stated scope]
- C08: The cited record supports this bounded proposition: Shows the limited scope of the historical residential solar tax rebate [Conditional]

Public-source evidence base

14 controlled source records are listed in Document 4. The full URLs are visible and clickable. This portfolio edition is intentionally shorter than the full dossier and must not be detached from the reliance boundary for consequential use.

Aperture pathway

Product page

<https://www.apertureforensic.com/research.html>

Selected Work

<https://www.apertureforensic.com/selected-work.html>

Discuss a Matter

<https://www.apertureforensic.com/enquiry.html>

Search

<https://www.apertureforensic.com/search.html>

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DOCUMENT 6

Final Delivery Manifest & Conformity Record

The delivery manifest records what exists, what was tested, what remains open and exactly what must happen before the publication candidate becomes a released final edition.

How to use this document

- Use this record to decide whether the package is technically and evidentially ready to release.
- It records open human, specialist, right-of-reply and legal/fairness gates.
- SHA-256 values are frozen externally after the PDF bytes are final, because embedding a self-hash would change the hash.

Evidence-chain reading rule

Source (S-ID) -> proposition (C-ID) -> factual status -> evidential confidence -> reliance status -> decision effect. If any link in that chain is missing, the proposition is not permitted to carry high-consequence reliance.

Delivery manifest

Matter	South African Commercial Solar & Battery Storage
Product	RESEARCH
Document code	APW-RES-260908-01
Filename	01_RESEARCH_South_African_Commercial_Solar_and_Battery_Storage.pdf
Version	2.0 publication candidate
Governing master	PHW Research AI v11.0 Approved Governing Master
Evidence cut-off	8 September 2026, 07:38 SAST
Research readiness	95/100
Sources	14
Controlled claims	20

Pages	31
Visual identity	Aperture Research Works logo; navy #16233A; orange #FF7A00; cyan #00B8D9; secondary blue #4F81BD; product accent applied
Typography	Carlito / Carlito Bold headings; Liberation Sans / Liberation Sans Bold body, tables and footer
Public release	Pending final human approval of the frozen files
External hash	Recorded in V168_FINAL_PUBLICATION_MANIFEST.json after final byte freeze

Masjien conformity record

Control	Status
Model memory excluded as evidence	PASS - dossier propositions are tied to listed sources; narrative memory is not evidence.
Current public-source refresh	PASS within accessible source set at evidence cut-off; current-status gaps disclosed.
Primary-source priority	PASS - institutional / authoritative / organisation-primary records identified separately.
Claim-to-source register	PASS - every C-ID has S-ID support.
Evidence-origin register	PASS - source custodian, class, URL and role recorded.
Chronology register	PASS - source/event vintages retained.
Contradiction register	PASS - tensions preserved and controlled.
Evidence-gap register	PASS - no known material gap is permitted to remain silent.
Competing hypotheses / falsification	PASS - Document 1.
Three-axis classification	PASS - factual status, confidence, reliance.
Reproducibility architecture	PASS for public edition; native-file/hash package required for commissioned high-reliance work where applicable.
Professional boundaries	PASS - reserved professional determinations excluded / escalated.
Human approval	PENDING - must be performed by Paul Hattingh on this exact frozen edition.
Independent specialist review	PENDING / matter dependent - not simulated.
Legal / fairness / right of reply	PENDING / matter dependent - required before adverse/high-consequence public release where applicable.

Change register

Version / stage	Date	Change	Control status	
0.x / earlier v168	7-8 Sep 2026	Earlier short Selected Work edition	Insufficient depth for intended Aperture demonstration; superseded by full v11 rebuild.	Superseded Version 2.0.
2.0 research rebuild	8 Sep 2026	Expanded six-document package, broader source register, proposition cards, chronology, gaps, risk and Masjien conformity controls.	Current publication candidate.	
2.0 final-byte freeze	Pending after technical QA	Page-by-page render, preflight, web synchronization and SHA-256 freeze.	Must occur before ZIP.	
2.1 / released edition	Pending human approval	Only if Paul Hattingh approves the exact frozen files and any required specialist/fairness gates are completed.	Not yet authorised.	

Technical publication preflight specification

Test	Gate	Acceptance condition
PDF opens and parses	Required	No damaged xref, page-tree or encrypted/unexpected form state.
A4 page geometry	Required	All pages standardised to A4; no accidental crop/rotation.
Searchable text	Required	No scanned-only narrative pages; text extractable for accessibility/search.
Fonts embedded	Required	Carlito and Liberation Sans resources embedded; no unknown/unembedded fallback font.

Test	Gate	Acceptance condition
Hyperlinks	Required	Evidence URLs and Aperture navigation links preserved and clickable.
Bookmarks	Required	Controlled document/major-section navigation available in the PDF outline.
Visual render	Required	Every page rendered and checked for clipping, overlap, blank/sparse artefacts, dark blocks and broken glyphs.
Website synchronization	Required	Card metadata, cover image and file path match the exact frozen PDF.
Hash freeze	Required	SHA-256 calculated only after the bytes are final and recorded externally.
Human release gate	Required	Final approver reviews exact frozen edition; automation may not simulate approval.

Website synchronization checklist

- PDF filename remains stable so existing Selected Work/product links do not break.
- Rendered cover image is regenerated from page 1 of this exact PDF.
- Selected Work page reports exact page/source/claim counts from the final manifest.
- Product page routes to the same PDF and preserves product-specific positioning.
- Search index contains title, product, subject, evidence keywords and the PDF path.
- Search, Languages, Enquiry and LinkedIn are reachable from the English public navigation/footer.
- Local href/src/CSS url() audit passes from the Hostinger document root before ZIP.

Release gate

- Confirm the final PDF page count, source count, claim count, bookmarks and hyperlinks after the second-pass build.
- Render every page and inspect for clipping, overlap, broken glyphs, abnormal darkness and unintended sparse pages.
- Run PDF preflight and font audit; no unembedded or unknown font resource may remain.
- Update the website card metadata and cover image to the exact frozen PDF.
- Run the full-site local href/src/CSS-url audit from the Hostinger document root.
- Generate SHA-256 hashes only after the bytes are frozen and record them in the external publication manifest.
- Human approver reviews the frozen candidate and records approval. No automated process may simulate this gate.
- Only after the above should the complete Hostinger-ready directory be zipped and published.

Supersession control

This Version 2.0 publication candidate supersedes the earlier thin v168 Selected Work PDF of the same filename once the final website package is frozen. Earlier generated drafts remain non-authoritative and should not be uploaded alongside the released edition.

Contact and navigation

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Selected Work

<https://www.apertureforensic.com/selected-work.html>

Discuss a Matter

<https://www.apertureforensic.com/enquiry.html>

END OF CONTROLLED PUBLICATION CANDIDATE