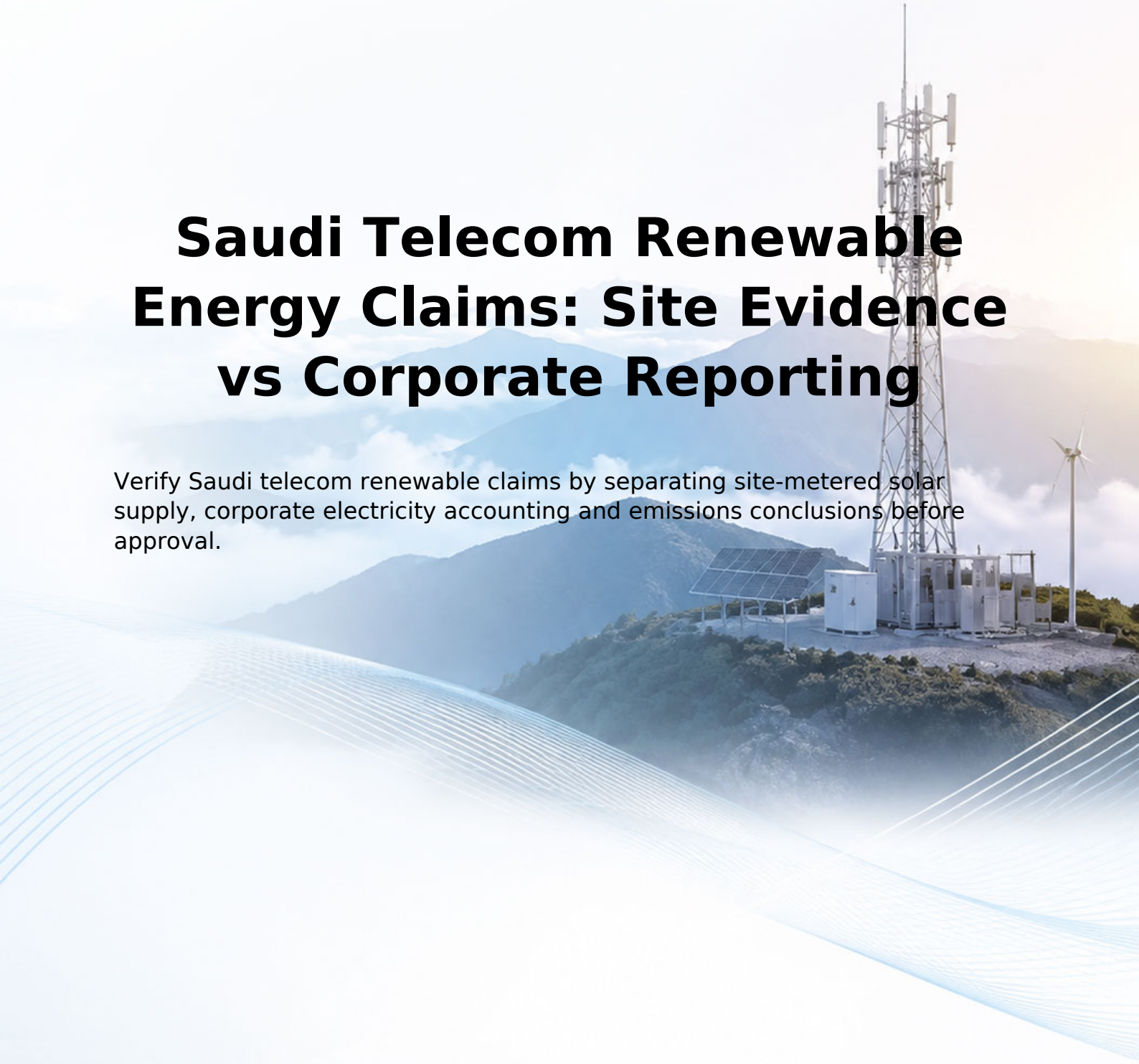
HUIJUE GROUP

Saudi Telecom Renewable Energy Claims: Site Evidence vs Corporate Reporting

Verify Saudi telecom renewable claims by separating site-metered solar supply, corporate electricity accounting and emissions conclusions before approval.



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PRODUCT KNOWLEDGE

Saudi Telecom Renewable Energy Claims: Site Evidence vs Corporate Reporting

Define whether a renewable statement concerns physical energy at one site, attributed electricity across a portfolio or a greenhouse-gas result. Then request evidence that matches that exact claim.

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Saudi renewable evidence guide
Approx. 10 minute read

Contents
Name the claim
Set the site boundary
Attribute storage
Separate reporting
Request evidence
Apply review gates
Design the handoff A Saudi telecom renewable-energy statement is decision-ready only when it identifies the asset boundary, energy boundary, reporting period, attribution method and conclusion being made. “This site used 51% physically delivered renewable energy” is different from “51% of purchased electricity was attributed to renewable sources” and from “the company reduced scope 2 emissions.” None can be substituted for another without additional evidence.The distinction matters as Saudi sustainability disclosure becomes more visible. The CST announcement for the fifth Digital and Space Sustainability Report says the 2026 edition covers 2025 achievements and national success stories from public and private entities. Such reporting provides sector context. A buyer still needs a site-specific evidence chain before using a corporate or sector statement as proof of an individual telecom station’s energy mix.

What must a telecom renewable-energy claim specify?

It must state what is being claimed, for which site or portfolio, over what period, at which measurement boundary and under which accounting method. The wording should also identify exclusions and whether the conclusion concerns energy, electricity procurement, greenhouse-gas inventory or avoided emissions.

Good **renewable energy claims** begin with a noun and a unit. Renewable generation is measured in kWh at a named meter. Renewable share is a percentage with a defined

numerator and denominator. Scope 2 is a corporate greenhouse-gas inventory result in CO2e. “Carbon neutral” is a still wider conclusion that needs an emissions boundary, treatment of residual emissions and any separate instruments used; it cannot be inferred from a solar array photograph.

Claim type	What it can describe	What it does not establish by itself
On-site renewable generation	Energy produced by the site’s PV or other renewable source at a specified meter	How much reached the telecom load, because curtailment, conversion, storage and export may intervene
Physical renewable supply share	Renewable-origin energy delivered to a defined site load during the period	Corporate scope 2 treatment, avoided emissions or outage autonomy
Renewable electricity procurement	Purchased electricity attributed under an approved reporting method and qualifying instruments	That renewable electricity was physically generated at the station or available during an outage
Portfolio renewable percentage	An aggregate result for the disclosed assets and method	The result for any one tower unless site-level records are also supplied
Emissions reduction or avoidance	A comparison against a disclosed inventory or project baseline	A renewable energy fraction unless the energy calculation is shown separately

Do not merge energy efficiency with renewable supply. A lower-load radio configuration can reduce consumption without changing the source mix. A new PV system can change the mix while total consumption rises because traffic or cooling demand increased. Report both when both matter.

How is physical renewable supply proven at one telecom site?

Use reconciled energy meters across the source, storage and load boundaries for the same interval. Count only renewable-origin energy delivered to the defined site load; do not count curtailed production, exported energy, storage losses or a closing increase in battery inventory as energy already supplied to that load.

First draw a one-line energy map. It should show the PV controller output, utility input, generator output, battery charge and discharge paths, any export path and the load boundary. State whether the denominator includes radio equipment, backhaul, rectifiers, cooling, lighting, security and control auxiliaries. ITU-T L.1350 is useful for this boundary discipline because it distinguishes utility input, locally produced energy and the base-station site, including telecom and site equipment. The project must still decide exactly where its meters sit.

Renewable energy delivered = direct renewable-to-load energy + traceable renewable-

origin storage discharge + other verified renewable supply delivered to the same load boundary
Site renewable supply share = renewable energy delivered / total energy delivered to the defined site load × 100%

A defensible **site renewable share** keeps numerator and denominator on the same time base and electrical boundary. If the site load meter records 1,000 kWh for one month, while 420 kWh arrives directly from PV and 90 kWh arrives from battery discharge traceable to prior PV charging, the physical renewable share is 51%. It is not 70% merely because the PV production meter recorded 700 kWh.

In that illustrative case, the difference between 700 kWh produced and 510 kWh delivered could include battery inventory change, conversion loss, curtailment or export. The reconciliation must show the actual allocation. Grid and generator meters should account for the rest of the load after storage change and measured loss are handled. The example is arithmetic only, not a Saudi benchmark or a promised system result.

Rated PV kilowatts cannot replace energy meters. Annual simulated PV yield can support design, but it is not operational proof for a completed reporting period. Likewise, multiplying a few instantaneous power readings by hours creates a weak estimate when source switching, controller limitation and communications gaps occurred.

How should a hybrid site’s battery be attributed?

Track the origin of charge energy and apply one documented allocation rule to discharge. If solar, grid and generator can all charge the battery, its entire output cannot be labelled renewable unless the control and metering records demonstrate that only qualifying renewable energy entered the attributed inventory.

A **battery source attribution** ledger should begin with an approved opening inventory, add metered renewable charge after the chosen conversion boundary, allocate charge and standby losses, subtract renewable-attributed discharge and close with a reconciled inventory. The operating controller may keep physical sources eligible at the same time, but the reporting layer still needs a consistent rule for mixed-source energy.

Closing renewable-origin battery inventory = opening inventory + renewable charge accepted − attributed losses − renewable-origin discharge
Renewable-origin discharge must not exceed the reconciled renewable-origin inventory available for that interval.

The allocation rule can be conservative, proportional or another approved method, but it

must be fixed before results are selected and must not create more renewable discharge than renewable charge can support. If source origin is unknown after a controller reset or battery replacement, mark the affected discharge as unattributed until the approved re-baselining condition is met.

Avoid double counting at both ends of storage. If PV-to-battery energy was counted as renewable energy delivered when charging, the later battery discharge cannot be counted again for the same site-supply claim. For a load-delivery metric, counting discharge at the load-side boundary and treating charge as an intermediate flow is usually clearer.

Does corporate renewable electricity reporting prove a solar-powered site?

No. Corporate reporting can attribute purchased electricity under an applicable accounting framework, but it does not by itself prove the physical source mix, outage behaviour or solar contribution of a particular telecom station.

The current GHG Protocol Scope 2 Guidance page distinguishes location-based and market-based methods and explains quality criteria for contractual instruments used in market-based reporting. As of September 2026, GHG Protocol is revising its corporate standards; procurement teams should record the specific framework version and reporting period rather than assuming a draft proposal is already effective.

Corporate energy reporting may combine data from many offices, exchanges, data centres and radio sites. It may also use supplier information or contractual instruments where the selected framework permits them. Those records belong in the corporate evidence pack. They do not change which source fed a remote site’s DC bus during a grid failure, and they do not demonstrate battery autonomy.

Keep three conclusions separate. Location-based scope 2 describes emissions associated with the relevant grid-average basis. Market-based scope 2 reflects qualifying contractual information where applicable. A physical site renewable share describes energy flows through defined site meters. A company may report all three, but each result needs its own label and reconciliation.

Avoided-emissions statements require another method and baseline. Do not calculate them by multiplying a site renewable percentage by a convenient national factor unless the approved project method, counterfactual, emission factors, losses and reporting period support that calculation. Report avoided emissions separately from the corporate inventory when the applicable framework requires separation.

What evidence should a Saudi telecom buyer request?

Request a compact claim file that lets a reviewer reproduce the result from controlled records. It should connect the public sentence to the asset list, electrical boundary, meter register, time-series data, attribution method and approval history.

1. **Claim statement:** exact wording, unit, asset population, period, boundary, method version and responsible owner.
2. **Asset and boundary register:** site IDs, included load classes, one-line diagrams, meter locations and any sites added or removed during the period.
3. **Meter register:** device identity, channel mapping, unit, direction convention, accuracy class or specification, calibration/verification status and counter-rollover behaviour.
4. **Interval records:** source energy, load energy, battery charge/discharge, storage state where used, export, curtailment, generator operation and data-quality flags on a common time basis.
5. **Attribution method:** battery-origin ledger, treatment of losses and opening inventory, missing-data rule, exclusions and recalculation policy.
6. **Corporate instruments:** contracts, supplier data or certificate records, eligibility assessment, ownership and retirement/cancellation evidence where these support the stated method.
7. **Reconciliation:** source-to-load energy balance, unresolved residual, exception log, changes from the prior period and reviewer sign-off.

Ask for raw exports or controlled extracts, not screenshots alone. A dashboard tile can display the final percentage while hiding counter resets, estimated intervals and excluded sites. The telecom site monitoring guide owns point identity, timestamp, communications and alarm architecture; this guide uses those records only to support a renewable claim.

Set data-quality limits before the period closes. Define how much missing data is acceptable, when substitution is permitted, which estimation hierarchy applies and when the result must be labelled provisional. Missing PV data is not zero PV production, and missing generator data is not proof that the generator did not run.

How should an operator accept or reject the claim?

Apply three gates in order: definition, traceability and conclusion. Reject or qualify the result at the first failed gate; a plausible final percentage does not repair a missing boundary or an unreconciled source ledger.

Review gate	Pass condition	Typical reason to qualify or reject
1. Definition	Claim type, population, period,	“Green site” or “100% renewable”

Review gate	Pass condition	Typical reason to qualify or reject
	unit, boundary and method are explicit	appears without a stated energy or emissions basis
2. Traceability	Controlled records reproduce the numerator, denominator and exclusions	Installed kW replaces delivered kWh; battery origin is unknown; portfolio data are assigned to one site
3. Conclusion	The wording stays within what the evidence proves	Certificates are presented as physical outage supply, or renewable share is presented as avoided emissions

Other warning signs include counting PV production and battery discharge twice, excluding cooling from the load denominator without saying so, treating annual PV simulation as measured supply, or describing a portfolio average as every site’s performance. A generator runtime reduction can be useful operational evidence, but it is not a renewable-energy meter.

Maintain change control. Meter replacement, controller firmware, revised loss assumptions, site transfers and newly available interval data can change the result. The claim file should state when a prior period is recalculated and retain both the original and revised values with reasons.

Can one data system support site and corporate reporting?

Yes, if it preserves separate layers. The operational layer records what the equipment measured and did. A controlled calculation layer validates intervals and applies the approved site attribution method. The corporate layer consolidates the approved population and adds the reporting framework and contractual evidence. The layers may share data, but they should not overwrite one another’s meaning.

The telecom energy KPI guide owns the wider KPI dictionary and dashboard design. The source-control guide owns live decisions about eligible sources, battery reserve and generator operation. For renewable-claim acceptance, preserve only the handoff: approved counters, state records, calculation versions, data-quality flags and an audit trail from the published result back to the site.

Build the evidence specification before commissioning. Retrofitting claim logic after a year of operation may reveal that a shared meter cannot distinguish cooling, that battery charge origin was never logged or that curtailment was confused with inverter downtime. Early boundary review can place the required meters and tags into the telecom solar power architecture without turning the corporate disclosure process into a control-system requirement.

Define the energy evidence with the site architecture

Provide Huijue with the Saudi site load boundary, grid and generator arrangement, PV and battery configuration, required reporting interval, proposed meter locations and the exact renewable statement that must be supported. These inputs can be reviewed with the preliminary telecom energy architecture. The operator and its reporting adviser remain responsible for approving the accounting method, instruments and public claim.

Discuss the Saudi site evidence boundary

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