

THE GAMBIA • BUILT TO GROW

Solar power

The complete business detail

Published website export · 2026-10-18



Hospital energy-service concept · not a photograph of a shortlisted customer.

All sections. All notes. One complete reference.

Includes all expandable details, four-step task assignments, the itemised first-test budget, published financial assumptions and all source references. Evidence dates and qualification limits are retained. These are planning cases, not supplier quotations or confirmed orders.

gambia.lawall.studio

Solar power · The idea and the plan

Reliable electricity. *One accountable team.*

We finance, operate and maintain the system. Businesses pay for metered electricity.

Proposed venture · evidence dates shown with sources



Hospital energy-service concept · not a photograph of a shortlisted customer.

Hospital energy-service concept · not a photograph of a shortlisted customer.

01 / The customer Hospitals, hotels + businesses

02 / What they buy Electricity, billed by use

03 / The first proof

14-day load study

Measure one agreed load before buying a system.

\$2,254 Proposed test cash · see the scope

01 / Overview · evidence retains its observation date

The first move

Qualify three prospects. Measure one agreed load. Price the service before buying equipment.

01

Measure

A real load and bill

02

Design

Right-sized solar + backup

03

Supply

Meter the agreed energy

04

Improve

Maintain, then expand

Three numbers to understand

Public evidence

15.90 GMD

Published hotel / industry kWh

PURA's 2023 determined rate. Verify today's bill and meter class before pricing; no savings claim.

PURA · published electricity tariffs

Public evidence

141 rooms

African Princess prospect

Rooms/suites advertised by the operator. A reason to investigate, not measured electrical demand.

African Princess · operator room inventory

Proposed test / model

14 days

Proposed load survey

Record one agreed customer load before sizing or buying the system.

Electricity as a service

The offer. In three parts.

We fund the system

Solar, storage and agreed backup integration.

We keep it running

Monitoring, maintenance and an agreed response.

The customer pays by use

Metered electricity, with clear supply and fuel terms.

Where we start

Start with private hospitals and hotels in Greater Banjul. Check current solar assets, bills and the legal buyer before proposing a system.

The question that decides Can one measured daytime load support a tariff that covers service and capital?

Critical clinical loads, grid export and capacity increases need separate engineering and agreed authorisations.

Service scope + market calculation

The customer buys

Metered kWh × an agreed tariff. Define availability, response times, billing, escalation and the term in the contract.

We provide

Financed equipment, installation through qualified specialists, monitoring, maintenance, repairs and agreed capacity upgrades. Extra capacity still needs an agreed design and commercial amendment.

What stays separate

Existing grid and generator energy/fuel, critical clinical UPS and major roof works need explicit boundaries. Surplus earns no export revenue until technical and commercial approval exists.

Build the market from qualified sites.

Signed annual delivered kWh × agreed tariff = contracted sales. Count sites only after decision authority, payment capacity, technical fit and current supply are documented. No 300-roof forecast is treated as secured demand.

02 / First installed project · scope checked 16 Oct 2026

One customer. Everything the system needs.

Solar panels are one part. We need a complete, compatible energy system, a qualified delivery team and a customer who can approve the electricity agreement.

First · validate the site

\$2,254

Measure before we buy.

A 14-day rental logger, qualified visits and engineering review. No panels or battery purchased.

Survey budget + scope

Then · approve one installation

20 kWp Solar capacity

≈40 kWh Nominal battery storage

A sizing hypothesis.

The existing planning case, not a design for a whole hospital. Measured load, backup duty and quotes decide the final size.

The complete project list

How the parts work together One managed electricity service. Conceptual flow · not a wiring diagram or a live site.

Solar

Generate

Grid

When available

Generator

Agreed backup

Control + conversion

Balance the supply.

Protection is designed across the system.

Meter

Agreed kWh

Customer

Defined loads

Battery + BMS Store surplus. Discharge within agreed limits.

Extra energy: use on site → store → approved export, or curtail. Grid export income is not included in the model.

Ten work packages · quantities follow the approved design

What we need to procure
and put in place.

01

Solar modules

Example: $40 \times 500 \text{ Wp} = 20 \text{ kWp}$

Generate electricity for the agreed daytime load.

Scope + what to specify

Count illustration: $40 \times 500 \text{ Wp} = 20 \text{ kWp}$. No module model or supplier is selected. Confirm shading, usable roof, layout, yield, module certificates, hot-weather output and local warranty support. Actual string design and module count belong in the installer's quotation.

Victron · ESS component guide

NLR · photovoltaic standard work specification

02

Roof + mounting

One assessed mounting system

Keep the array secure and the roof watertight.

Scope + what to specify

Roof-condition/structural assessment, suitable rails and fixings, corrosion protection, roof seals, access and installation-at-height arrangements. Design for the actual roof and local exposure. Major roof repairs are outside the existing allowance.

NLR · photovoltaic standard work specification

03

Battery + BMS

Example: $8 \times 5.12 \text{ kWh} = 40.96 \text{ kWh}$

Store energy for agreed evening and backup needs.

Scope + what to specify

Illustrative LiFePO₄ format: $8 \times 5.12 \text{ kWh} = 40.96 \text{ kWh}$ nominal. No battery model or supplier is selected. Include a compatible battery-management system, cabinet/rack, battery disconnects/protection and temperature/environment provisions. Usable AC energy is lower and depends on operating reserve, losses and ageing. Choose capacity from required duty; storage can be reduced if the measured service does not need it.

Victron · Lithium NG battery datasheet

Victron · ESS system design

04

Inverter + solar charging

One compatible engineered package

Turn solar and stored energy into usable building power.

Scope + what to specify

Select suitable inverter/charger equipment and the solar conversion path: integrated MPPT, separate MPPT chargers or an AC-coupled PV inverter, as designed. Avoid double-counting integrated functions. Phase count, continuous/peak kW or kVA and charge limits follow measured loads and the battery; 20 kWp of panels does not specify inverter output.

Victron · ESS component guide

Victron · ESS system design

05

Cables + electrical protection

A fully specified AC / DC package

Connect and protect the complete installation.

Scope + what to specify

Include rated cables/connectors, containment, distribution boards, isolators, fuses/breakers, designed surge protection, earthing/bonding and any required lightning/fire provisions. The designer specifies ratings and quantities from routes, fault conditions, equipment and applicable rules. No generic component basket substitutes for the protection design.

Victron · Wiring Unlimited

NLR · photovoltaic standard work specification

06

Metering + kWh billing

Customer meter + source measurement

Bill the electricity covered by the agreed service.

Scope + what to specify

Define the customer delivery boundary and an accepted billing meter, calibration/verification and readings. Measure grid and generator contributions where needed to allocate costs; a controller's monitoring meter is not automatically a lawful revenue meter. Agree tariff, source-energy/fuel treatment and invoice checks.

Victron · ESS component guide

PURA · electricity sector

07

Smart controller + connection

Controller · router / SIM · monitoring

Coordinate energy, record faults and arrange response.

Scope + what to specify

A compatible EMS/controller, required communication cables and a site-appropriate internet/data plan. Configure monitoring, local records when offline, alerts, permissions and backups. Start with standard tools and a simple invoice/maintenance ledger; a custom platform is not required for site one.

Victron · Cerbo GX monitoring

08

Grid interface + surplus control

Existing connection · approved design

Use the grid safely and control spare energy.

Scope + what to specify

Assess the existing connection, protection, metering and transfer/maintenance-bypass arrangement. Obtain the applicable NAWEC/PURA requirements, including anti-islanding and permitted operating mode. Surplus can serve suitable on-site demand or charge storage; when neither is possible, curtail. Export only under an approved technical and commercial arrangement.

Victron · ESS system design

PURA · electricity sector

09

Existing generator + interface

Reuse only if suitable · no new purchase assumed

Cover agreed loads when solar and storage are insufficient.

Scope + what to specify

Survey the actual generator, controls, service condition, phase/rating and fuel responsibility. Specify compatible transfer/interlocking, input limits, start/stop integration if supported and maintenance bypass with the qualified team. A dual-input inverter is one possible architecture, not a selected model. The reference budget excludes a new generator and its fuel.

Victron · Quattro inverter/charger

Victron · ESS commissioning

10

Installation + ongoing service

Qualified team · handover · spares

Deliver a working service and keep it operating.

Scope + what to specify

Include engineering, installation/lifting, independent checks as needed, commissioning, as-built drawings, test records, operator training, warranties and initial spares. Agree cleaning/inspection, fault response, local technician access and replacement reserve. Acceptance must test actual grid, storage, generator, metering and protection modes.

Victron · ESS commissioning

NREL · PV and storage O&M best practices, third edition

For a hospital: start with agreed routine loads.

The hospital's engineering team must define clinical boundaries. Theatre, ICU, medical UPS and critical redundancy are not covered by the generic 20 kWp / 40 kWh example. Neither a battery size nor a manufacturer's transfer-time claim proves clinical continuity.

The project also needs people, rights and a commercial agreement

Three contributions.

One complete project.

Lamin

Secure the site and local operation.

Customer access, roof/site rights, local installer offers, deliveries, trained site contact and a realistic response arrangement.

Joachim

Own the complete technical brief.

Coordinate the qualified designer, structural/electrical checks, compatible bill of materials, comparable quotes and witnessed acceptance.

Dominik

Make the service fundable and billable.

Customer and our contracting entity, asset ownership, kWh agreement, approval route with advisers, funding, insurance and meter-to-invoice collection.

Bring in a qualified electrical designer/installer, a roof/structural specialist as required, a metering/generator specialist and local legal/insurance advisers. The founders coordinate the work; these specialist approvals are not replaced by founder experience.

The brief for comparable complete-system quotes

- Design inputs: load file, peaks/phases, selected circuits, outage and fuel records, roof survey, backup target and existing assets.
- Complete equipment: exact models, quantities, compatibility, protection, mounting, cable lengths, meters, controls, environmental limits and all integration work.
- Delivered scope: freight, battery transport documentation, clearance/tax treatment, installation, approvals, commissioning, training, warranty and support.
- Acceptance + cash: contracting/asset-owning entity, legal importer, agreed test protocol, exclusions, dates, staged payments, response times, insurance and funding through first collections.

Ask at least two qualified providers against the same brief. GAM-Solar and Shyben are existing enquiry routes for installation and generator expertise, not selected or approved contractors. Installer research · Generator research

Existing reference case · not an installed quote

\$57,000 deployment
+ \$6,000 liquidity

\$63,000 combined planning funding. Reconcile every item with complete quotations; no equipment has been selected or ordered.

Fund the whole service.

The study is part of validation and overlaps the later engineering provision. Do not simply add both budgets. Major roof works, a new generator, fuel, clinical UPS and founder pay/travel are excluded.

Installation model + full assumptions

Before placing equipment orders

Measured site. Approved design.

Agreed customer. Complete funding.

Then procure, commission and verify the metered service. Exact inverter power, cable lengths, protection ratings, roof layout and usable backup duration remain open until the site study and design.

03 / Customer pipeline · 6 new leads checked 16 Oct 2026

Real names.

A reason to start talking.

15 research prospects. Start with three conversations, then measure one qualified site. No customer interest, contract or unmet energy need is confirmed.

3 First conversations

6 New research leads

15 Total named prospects

Private healthcare · Kanifing Layout

Sharab Hospital Ltd

24/7 care

Lab, diagnostics and pharmacy advertised.

Measure one agreed non-critical daytime block.

Meeting brief + evidence

Why investigate · our assessment A useful place to test a defined daytime electricity service alongside an existing clinical power arrangement.

First question

Would management share 12 months of electricity/fuel records, show the current supply system and permit a 14-day survey of agreed circuits?

Who to ask

Hospital administration + facilities/electrical lead + finance

What to measure

Hypothesis to measure: administration, lighting, suitable cooling and an agreed diagnostic load.
Clinical/critical circuits need separate specialist approval.

Still unknown

Existing PV/storage/generator inventory, roof rights, clinical boundaries, current bills, budget and willingness to sign a kWh contract are unverified.

Sharab Hospital · services Sharab Hospital · official contact FCDO · Gambian medical facilities Official enquiry route

Private healthcare · Brusubi Turntable

Africmed International Hospital

24-hour service

Lab, radiology and inpatient services advertised.

Compare a defined routine load; critical circuits need separate design.

Meeting brief + evidence

Why investigate · our assessment A second hospital conversation to compare a real daily load and the value of defined backup with the Sharab case.

First question

Which block has a measurable power cost or service gap, and who can approve the site access, supply scope and payments?

Who to ask

Hospital management + facilities/electrical lead + finance

What to measure

Hypothesis to measure: a non-critical daytime service block first. Do not include ICU/theatre loads in a generic 20 kWp system.

Still unknown

No measured consumption, outages, installed equipment, available roof area or credit evidence is public evidence for our model.

Africmed · services FCDO · Gambian medical facilities Official enquiry route

Hospitality · Kotu Beach

African Princess Beach Hotel

141 rooms

Air conditioning and mini-fridges advertised.

Measure a service block and its quiet-season demand.

Meeting brief + evidence

Why investigate · our assessment A commercial comparison with healthcare: test a separately metered daytime hotel load rather than offer to power the entire property.

First question

Can the general manager and engineer identify one costed daytime load, provide seasonal bills and disclose any existing solar or energy contract?

Who to ask

General manager + chief engineer/facilities + finance or owner representative

What to measure

Hypothesis to measure: an agreed cooling or service block. Verify occupied/quiet-season profiles and the existing generation mix.

Still unknown

Published room count is not a load study. Existing PV, backup equipment, ownership, roof rights and purchasing appetite are unknown.

African Princess · rooms African Princess · official contact Official enquiry route

Added 16 October · qualify next

Six more concrete opportunities.

Scale and published facilities justify a conversation. They do not establish load, creditworthiness or room for a new solar contract.

Hospitality · Bertil Harding Highway Bakadaji Hotel 80 suites

Public evidence · not verified demand The operator describes 80 suites across 11 blocks, with air conditioning and refrigerators.

Why investigate · our assessment Compare one guest or service block for metered daytime electricity.

First question

Can the owner and engineer share current bills and identify a block not already covered by an energy contract?

Who to ask

General manager + engineering/facilities + owner or finance

What to measure

Measure a defined cooling/service block. Check roof rights, structural condition, existing PV/storage and seasonal use before sizing.

Still unknown

Room count is not measured demand. Existing generation, energy contracts, payment capacity and interest are unverified.

Bakadaji Hotel · rooms and location Official enquiry route

Hospitality · larger site · Kololi Senegambia Beach Hotel 375 rooms

Public evidence · not verified demand The operator homepage advertises 375 rooms, pools, restaurants and meeting facilities.

Why investigate · our assessment A large site for one defined service block, not a whole-hotel promise.

First question

Which load still has an avoidable energy cost after existing systems, and who can authorise a survey?

Who to ask

General manager + chief engineer + owner/finance

What to measure

Separate cooling/pumping or another daytime block from hot-water demand. Ministry policy records historical solar water heating; that is not proof of today's PV capacity.

Still unknown

The homepage count differs from older category totals. Reconfirm active inventory. Current PV, thermal plant, contracts and load are unknown; direct page retrieval timed out.

Senegambia Beach Hotel · operator overview Energy ministry · historical electricity policy Official enquiry route

Hospitality · two accommodation areas · Kotu Kombo Beach Resort 256 + 88 rooms

Public evidence · not verified demand The operator lists 256 beachfront rooms and 88 additional rooms/apartments at Kombo Oasis, around 100 m away.

Why investigate · our assessment Investigate one independently metered block; two areas may have different supply boundaries.

First question

Are the two accommodation areas separately metered, and is either open to a costed daytime supply proposal?

Who to ask

General manager + facilities engineer + owner/procurement

What to measure

Survey each meter, duty cycle and existing assets. Historical policy mentions solar water heating, not a current PV electricity inventory.

Still unknown

Do not combine both areas into one supply design without a survey. Ownership, grid connections, PV, roof rights and procurement interest are unverified.

Kombo Beach Resort · accommodation and facilities Energy ministry · historical electricity policy Official enquiry route

Hospitality · Kotu TUI BLUE Tamala Cooling + services

Public evidence · not verified demand The operator advertises air-conditioned rooms, pools, dining, a gym, spa and conference facilities.

Why investigate · our assessment Compare a repeat daytime service load, subject to local ownership and brand requirements.

First question

Who signs the electricity agreement, and which load is not covered by existing equipment or supplier contracts?

Who to ask

Local general manager + engineering + owner/finance

What to measure

Meter an agreed cooling, pumping or back-of-house load. No verified room count, kW demand or seasonality is assumed.

Still unknown

TUI branding does not establish the property owner or electricity buyer. Current solar/storage, approvals and load are unverified.

TUI BLUE Tamala · facilities and contact Official enquiry route

Hospitality · Cape Point Ocean Bay Hotel & Resort Air-conditioned suites

Public evidence · not verified demand The operator's suite page lists air conditioning and a minibar; the hotel offers dining and other resort services.

Why investigate · our assessment A Bakau-area comparison for a defined cooling/service block.

First question

Can management identify one measured daytime block and the person who can approve a paid energy offer?

Who to ask

General manager + facilities/electrical engineer + owner/finance

What to measure

Request a circuit-level survey, current plant inventory, seasonal bills and roof/land rights. Do not infer whole-hotel demand from a suite description.

Still unknown

Active room count, ownership/management permissions, supply arrangements and purchasing appetite must be verified.

Ocean Bay Hotel · suite facilities Ocean Bay Hotel · location Official enquiry route

Food manufacturing · later industrial case · Dobson Street Gambia Milling Corporation Flour + bran

Public evidence · not verified demand GMC has an operator contact page and appears in Seaboard's current portfolio. The group's 2015 profile describes flour/bran production and a port-adjacent grain terminal.

Why investigate · our assessment A later industrial opportunity after the first commercial site is proven.

First question

Would plant management identify an unmet auxiliary/daytime load and the local/group procurement route?

Who to ask

Plant engineer + local management + group procurement/finance

What to measure

Begin with plant power-quality, shift schedule and asset review. Milling motors and production continuity need a dedicated engineered and financed case.

Still unknown

The 450 tonnes/day and 8,000-tonne terminal figures are historical 2015 claims, not current audited throughput. Present load, PV, contracts and approval authority are unknown.

Gambia Milling Corporation · company and contact Seaboard · current portfolio Seaboard Overseas · GMC facility profile Official enquiry route

Six further healthcare, hotel and industrial prospects**Privately managed charitable healthcare · Westfield Junction Westfield Clinic Trust Qualify locally**

Public evidence · not verified demand The clinic describes 16 inpatient beds, round-the-clock emergency cover and charitable status; it relies on service income and donations.

Why investigate · our assessment A smaller facility to investigate if an authorised budget-holder or sponsor can support a sustainable electricity agreement.

First question

Which trustee/manager controls an energy contract, what budget pays the bills, and could a non-critical block be surveyed?

Who to ask

Clinic management + trustees/budget-holder + facilities/electrical adviser

What to measure

Hypothesis: a ring-fenced administrative/daytime load. Maternity, surgery and emergency continuity need separate clinical design.

Still unknown

Charitable status does not establish ability to pay. Confirm the funding source, current assets and any donor restrictions.

Westfield Clinic Trust · services and governance FCDO · Gambian medical facilities Official enquiry route

Private healthcare · directory-verified · Brufut Coastal Road Medicare Clinic Qualify locally

Public evidence · not verified demand FCDO's September 2026 list identifies a private clinic at Brufut Coastal Road and publishes an organisational contact route.

Why investigate · our assessment A reserve healthcare prospect after on-site identity, operating scope and a meaningful daytime load are confirmed.

First question

Can local management confirm the active site, decision maker, current supply and whether there is a paid energy need to assess?

Who to ask

Clinic administrator/owner + facilities adviser + budget-holder

What to measure

No equipment list is adopted from older directories. Establish the actual circuits and load before sizing anything.

Still unknown

The operator website could not be validated. Do not treat older bed/equipment counts or public-directory contact details as a current site survey.

FCDO · Gambian medical facilities Official enquiry route

Hospitality · Kololi Beach The Kairaba Beach Hotel Qualify locally

Public evidence · not verified demand The operator describes a Kololi beach hotel with accommodation, pools and dining; the Gambia Hotel Association lists it.

Why investigate · our assessment A larger, seasonal hotel prospect for one defined service block after owner and existing energy contracts are identified.

First question

Which legal entity buys electricity, which loads run in the quiet season, and does an existing solar/service agreement cover them?

Who to ask

General manager + engineering/facilities + owner/procurement

What to measure

Hypothesis: daylight cooling or selected back-of-house loads. High/low occupancy and hot-water arrangements affect the case.

Still unknown

Direct operator-page retrieval timed out; operator search evidence and association listing support discovery only. Current supply and operations need confirmation.

Kairaba Beach Hotel · official website Gambia Hotel Association · member directory Official enquiry route

Hospitality · Bijilo Coco Ocean Resort & Spa Qualify locally

Public evidence · not verified demand The operator lists accommodation, spa and restaurants. A historical IFC review describes solar water heating, which is different from electricity-producing PV.

Why investigate · our assessment A technically more involved opportunity: distinguish water-heating systems, existing electrical assets and genuinely unmet electrical demand.

First question

Could the facilities team provide today's equipment inventory and a seasonal load profile for one suitable block?

Who to ask

General manager + facilities/engineering + owner/finance

What to measure

Hypothesis: separately metered cooling, spa/service or kitchen-support loads. Never reuse old generator ratings as a current design basis.

Still unknown

The 2008/2016 IFC record is historical. It does not establish today's PV capacity, generators, demand, contracts or available roof space.

Coco Ocean · resort information IFC · Coco Ocean historical environmental review Gambia Hotel Association · member directory Official enquiry route

Beverage manufacturing · 42 Kanifing Industrial Estate GAMBEGA / Equatorial Coca-Cola Bottling Company Qualify locally

Public evidence · not verified demand ECCBC's own Gambia page identifies Gambega and the Kanifing facility. GRA recorded a facility visit in June 2024.

Why investigate · our assessment A later industrial customer with a formal technical/procurement route, not a whole-factory promise within the small-site budget.

First question

Would local plant management accept an initial energy-cost discussion and identify any load not already covered by group investment or supply contracts?

Who to ask

Plant/engineering manager + procurement + country/group finance

What to measure

Hypothesis: an independently metered auxiliary daytime load, if worthwhile. Production machinery, motors and continuity require a dedicated engineered case.

Still unknown

Current generation, operating schedule, corporate approval rules, site capacity and power costs are unverified.

ECCBC · Gambega facility Gambia Revenue Authority · bottling-facility visit Official enquiry route

Beverage manufacturing · historical site record · Bonto Village Bel Bottling Group Qualify locally

Public evidence · not verified demand GRA documented a visit to the group's Bonto facility on 13 June 2024.

Why investigate · our assessment A second-wave industrial lead only after the current operating site, management and reachable technical support are verified.

First question

Can Lamin confirm the active operator/site and obtain the correct facilities/procurement route before we propose a survey?

Who to ask

Current plant management + procurement + finance, to be identified

What to measure

No capacity or process equipment is assumed. Start with operating verification, then assess a measurable auxiliary/daytime need.

Still unknown

The evidence is dated 2024. No present operating status, direct decision-maker contact, energy gap or credit position is established.

Gambia Revenue Authority · bottling-facility visit

Check the existing system first.

Current bills, PV/storage, generator, roof rights and purchasing authority are unknown at these prospects. Historical solar water heating at Senegambia and Kombo Beach does not establish today's PV electricity capacity.

Energy ministry · historical electricity policy

Existing solar, procurement and delivery partners

- Greenlink publishes existing Gambian solar and lease projects. Check current contracts before proposing a new installation. Greenlink · West African project references Greenlink · dated project archive

- Public hospitals can have donor-funded systems and public procurement requirements. EIB · public-school / health energy programme
- Qualified installers and generator specialists may be suppliers or competitors; no partnership is agreed. GAM-Solar · commercial services Shyben A. Madi & Sons · energy department

The first meeting should produce A buyer. A bill. An asset list. Consent to measure.

Competition · what customers already use

Buying equipment

A customer can buy a system from local installers. Compare our lifetime delivered cost with that ownership option.

Greenlink · West African projects

Existing solar leases

Greenlink already publishes lease references. Our proposed advantage is accountable metered delivery, transparent billing and dependable local support - still to be demonstrated.

Greenlink · West African projects

Grid + generator

A better grid reduces the value of our backup. Measure avoidable fuel, maintenance and interrupted work rather than count every existing cost as a saving.

PURA · published electricity tariffs

What we keep from the supplied concept +

The supplied Shade & Power concept contributes customer screening, financed ownership, local maintenance and eventual portfolio financing. Its fixed monthly plan, licensing workaround, assumed savings and 50 kWp return do not transfer to today's metered, storage-inclusive model.

Source: Shade & Power · Konzept 2.0, 6 October 2026, supplied by the owner. The German concept and its English summary describe historical internal planning. Later user decisions take precedence. No excluded business idea is restored.

Quality + growth

Prove the essentials. Then repeat.

Technical, quality and expansion requirements

01 Choose the right configuration +

Compare a daytime PV design using existing backup with a larger storage design. Do not size a battery from the building's status or headline panel rating. Record peaks, phase balance, protected circuits, seasonal occupancy and evening load. A 14-day survey must be checked against seasonal bills.

02 Keep the customer safe and the contract credible +

Use a qualified electrical design, commissioning and insurance process. For hospitals, clinical engineers define critical-load continuity; a payment dispute must not trigger an improvised remote cut-off of clinical circuits. Local counsel must confirm lawful security, recovery and service terms.

03 A repeatable commercial system +

The digital record connects meter readings, invoices, collected payment, faults, maintenance and replacement reserves. Lamin coordinates local access and response; Joachim owns technical delivery with specialists; Dominik owns customer economics, billing and funding. These are proposed responsibilities.

Four conditions for moving forward · our decision criteria

01

Demand

One legal buyer, a defined load and written survey access.

02

Delivery

Safe design, roof rights and a confirmed authorisation route.

03

Economics

Customer-accepted tariff and full-cost recovery across realistic use.

04

Repeat

Measured service performance and collected invoices before a second site.

04 / Our proposed start plan · not started

Start with a clear plan. Build it together.

The first proof

One measured customer. One costed electricity offer.

Three prospect conversations → one qualified site → a 14-day load study.

Validation cash · proposed \$2,254 Budget + scope

01-03 · Qualify + run the test 04 · Decide the next investment separately

01

Before paying for a survey Coordinates · Lamin

Choose one site worth measuring.

Find a customer-defined energy problem and the person who can approve a metered electricity agreement.

Lamin

Local access + operations

- Arrange three prospect conversations; no visit is agreed yet.
- Request bills, fuel logs, an asset list and survey access.

Joachim

Technical design + delivery

- Screen the roof, existing supply and candidate circuits.
- Use a qualified electrician to separate routine and critical loads.

Dominik

Business + software

- Identify the legal buyer, budget-holder and decision process.
- Compare avoidable grid/diesel costs and test interest in paying per kWh.

Bring to the next decision

- One customer brief
- Current supply + cost records
- Consent for defined measurement

Move forward when A suitable site grants safe access; the buyer and service boundary are identified.

Scope + specialist checks

Ask for seasonal records where available; a recent bill alone is not a full-year load profile. Confirm roof rights and existing supply contracts. Do not size a whole hospital from room or bed counts.

The handover Lamin and Dominik hand the customer brief to Joachim.

02

After the site grants access Coordinates · Joachim

Book a safe, fully costed study.

Confirm the people, rented logger, measurement method and spending limit before starting.

Lamin

Local access + operations

- Confirm access dates, field support and local logger availability.
- Collect written rental, transport and support terms.

Joachim

Technical design + delivery

- Engage the qualified electrician and engineer.
- Confirm calibration, safe installation, recording interval and the agreed load.

Dominik

Business + software

- Approve the quoted study budget and cash schedule with the team.
- Define the billing boundary; arrange preliminary contract and regulatory review.

Bring to the next decision

- Survey brief + named specialists
- Local quotes + equipment booking
- Approved cash limit

Move forward when Access, qualified personnel, required permissions/insurance and full study funding are in place.

Scope + specialist checks

The \$2,254 study allowance is not a quote and buys no PV installation. If suitable local rental or the specialist scope changes, reprice before committing. Agree a comparable future system quote brief; do not order equipment.

The handover Joachim confirms the study; Lamin coordinates the site days.

03

14-day recording window Coordinates · Joachim

Turn 14 days of data into an offer.

Measure the agreed load, explain unusual days and price the complete electricity service.

Lamin

Local access + operations

- Keep a daily log of outages, fuel use and operating hours.
- Coordinate safe access and explain unusual demand to the engineer.

Joachim

Technical design + delivery

- Have specialists install/remove the logger and review the data.
- Assess daytime use, peaks, backup needs and seasonal gaps.

Dominik

Business + software

- Calculate delivered-kWh cost, collections risk and capital recovery.
- Review tariff, maintenance and agreed expansion terms with the customer.

Bring to the next decision

- Measured load profile
- Scoped design + comparable quotes
- Customer-reviewed kWh offer

Move forward when Measured demand supports the design and a credible fully costed offer. No installation follows from verbal interest.

Scope + specialist checks

Separate grid charges and generator fuel that remain from avoidable costs. Do not promise clinical continuity without the hospital's qualified engineering team. Record the buyer's response to the actual price and contract scope.

The handover Joachim passes measured inputs to Dominik for the investment review.

04

Next investment · Separate investment decision Coordinates · Dominik

Approve one system, then prove it.

Secure the customer agreement, approvals and funding; commission professionally and review paid operation.

Lamin

Local access + operations

- Agree site/operator responsibilities and train the local team.
- Keep incident, service and collection records after commissioning.

Joachim

Technical design + delivery

- Lead supplier selection with qualified designers/installers.
- Verify protection, battery/generator integration, commissioning and maintenance.

Dominik

Business + software

- Secure contract, permissions, insurance and finance before ordering.
- Set up metering/billing and compare delivery, collections and full costs.

Bring to the next decision

- Approved installation case
- Commissioned + paid operating reference

- Repeatable service checklist

Move forward when Expand only after agreed reliability, collected bills and full operating economics are demonstrated.

Scope + specialist checks

Installation has its own capital budget. Grid export needs separate approval and earns nothing in the present model. Agree a real operating review date together; no artificial rollout deadline is assumed.

Then Review the first operating site before taking on the next customer.

Preparation + shared working file

Start with these three actions.

Lamin Local access + operations

Request visits with Sharab, Africmed and African Princess.

Joachim Technical design + delivery

Prepare the circuit, asset and survey checklist.

Dominik Business + software

Prepare the bill comparison and buyer questions.

One shared working file Customer sheet · asset list · load file · offer + decision log

Qualified help we must bring in

Qualified electrical designer / installer, metering specialist, local licensing counsel and insurer. Clinical power requires the hospital's qualified engineering team.

At every decision

Continue. Adjust. Or stop.

Review the evidence together. Record the decision, the person responsible, the spending limit and the next review date. Dates follow access, quotes and approvals.

05 / The first test · checked 15 October 2026

The first test. Clearly costed.

14 days of load recording

Measure one real customer.

Measure one agreed load before buying a system.

Full test scope +

Visit three prospects, then record the agreed loads at one hospital or business for 14 days. Use a locally available, calibrated rental logger installed by a qualified electrician. No PV or battery is purchased in this test.

Cash to have available · USD

\$2,254

Proposed budget, not a supplier quotation.

Test costs \$1,670 Consumed inputs + services

Reusable equipment \$0 Assets may remain after the test

20% contingency \$334 Provision on costs + equipment

Stock / deposits / buffer \$250 Cash tied up; not immediate expense

Full item-by-item calculation · USD +

Energy logger rental: $2 \times \$180 = \$360$; Qualified electrician visits: $2 \times \$100 = \$200$; Customer / site visits: $3 \times \$40 = \$120$; Independent engineering analysis: $2 \times \$200 = \$400$; Local field support: $4 \times \$35 = \$140$; Data + printing: \$30; Initial tariff / contract review: \$150; Local travel + consumables: \$120; Provisional local taxes / permissions: \$150. Subtotal = \$1,670 ; plus 20% contingency \$334 = \$2,004 of test spending including the reserve. Add refundable logger deposit \$250 = \$2,254 cash required . No customer receipts or assumed resale/refunds are deducted.

Quantities, reference prices and quote gaps +

Selected planning allowances · USD · quotes pending

Item + scope	Quantity × unit	Cash
Energy logger rental 2 weeks · UK reference approximately \$352 ex VAT for 14 days; \$360 is a local rental allowance, not a delivered UK offer · test cost	2 × \$180	\$360
Qualified electrician visits Local allowance · written quote required · test cost	2 × \$100	\$200
Customer / site visits Local allowance · written quote required · test cost	3 × \$40	\$120
Independent engineering analysis 2 paid specialist days · founder review does not replace this work · test cost	2 × \$200	\$400
Local field support Local allowance · written quote required · test cost	4 × \$35	\$140
Data + printing Local allowance · written quote required · test cost	1 × \$30	\$30
Initial tariff / contract review Local allowance · written quote required · test cost	1 × \$150	\$150
Local travel + consumables Local allowance · written quote required · test cost	1 × \$120	\$120
Provisional local taxes / permissions Allowance, not a statutory rate · test cost	1 × \$150	\$150
Refundable logger deposit Not an expense; refund terms and amount unconfirmed · liquidity / inventory	1 × \$250	\$250
20% contingency on \$1,670	20%	\$334
Total cash required	Before receipts	\$2,254

What this test can establish

A measured load profile, a comparable design/quotation brief and a customer-reviewed kWh offer. This proves the basis for a proposal; it does not demonstrate uninterrupted power or an installed system.

Outside this budget / conditions

A PV installation, battery, new generator, clinical UPS, structural works, full electrical protection study, financing and grid-export approval. Rental availability and deposit must be agreed locally; an overseas shipment needs a revised quote before spending.

Planning allowances, not local quotes. Includes a 20% reserve; excludes founder pay and travel. No sales receipts are deducted.

Budget basis, exclusions + next-stage funding

All local prices, specialist day rates and the 20% reserve are proposed allowances until written offers replace them. Relevant overseas references appear in Sources ; they are not Gambian landed quotes. Provisional tax/permission amounts are not legal rates. Founders' time is unpaid in this test; founders' pay and travel are excluded. Add them before approval if needed. There is no supplier commitment or booking yet. No paid goods are released without the applicable qualified checks.

The later deployment case below has a different scale and scope. Do not add both budgets mechanically: reconcile test spending and reusable assets already included in launch lines before funding the next stage.

Read the test correctly · calculated from the stated assumptions

The first test buys a decision, not a power system.

\$2,254 funds a 14-day load study and proposal. It buys no solar installation and assumes no electricity sales.

Calculation + what the test can prove

The \$2,254 test buys access, specialist measurement and a proposal. No electricity-sales receipts are assumed. The later storage-inclusive case needs about \$0.453/kWh for its stated capital target, versus the \$0.28 planning tariff. Compare an engineered smaller-storage option and the customer's avoidable grid/diesel costs before funding equipment.

What the later investment model includes

20 kWp solar + roughly 40 kWh nominal storage. Existing customer generator integrated; no new generator purchase or clinical UPS included. This is a sizing hypothesis for an agreed load, not a whole-hospital supply design.

06 / The later investment case

The numbers. With the assumptions visible.

Our first recommendation

First prove the load and the tariff. The storage-inclusive model does not recover its stated capital target at the planning tariff.

How this business earns

$\text{Paid volume} \times \text{Collected price} - \text{Full operating costs} = \text{Cash to fund the business}$

Planning cases below are team assumptions , not verified Gambian offers or customer prices. Reference facts and their limits appear in the source cards.

Downside

\$109

Cash after operation + reserve
per month · before tax

Solar generation yield

1,500 kWh / kWp / year

Generated energy sold at the agreed meter

70 %

Collected tariff

0.22 USD / kWh

Planning case

\$369

Cash after operation + reserve
per month · before tax

All inputs

As listed below

Stronger case

\$568

Cash after operation + reserve
per month · before tax

Solar generation yield

1,750 kWh / kWp / year

Generated energy sold at the agreed meter

92 %

Collected tariff

0.32 USD / kWh

One illustrative operating month, not a full seasonal forecast. Do not multiply peak-month results by twelve. Figures are USD, before income tax and founders' pay/travel; debt defaults to zero. Negative scenarios are intentionally retained.

Separate scale · later deployment / launch

Deployment is only part
of the cash needed.

\$63,000 Selected planning case

Deployment \$42-72k + liquidity \$4-10k = \$46-82k. These are scoped team allowances. A larger hospital system can cost materially more.

Deployment / launch \$57,000

Liquidity \$6,000

See every budget line +

Team allowances · USD · not quotations

Scope	Allowance range	Selected case
PV modules, mounting + DC works Team allowance · quote required	\$7,000-\$11,000	\$9,000
Battery equipment Victron Q4 reference; supplier / design not selected	\$14,000-\$22,000	\$18,000
Conversion, controls + protection Team allowance · qualified electrical design	\$6,000-\$10,000	\$8,000
Site installation + generator interface Existing generator only · quote required	\$5,000-\$9,000	\$6,500
Freight, clearance + provisional taxes Team allowance · product classification needed	\$4,000-\$8,000	\$6,000
Engineering, permits + customer agreement Includes the initial measurement / design work	\$2,000-\$4,000	\$3,000
Deployment contingency Explicit provision; not a validated risk estimate	\$4,000-\$8,000	\$6,500
Deployment / launch total	\$42,000-\$72,000	\$57,000
Operating and collection buffer	\$4,000-\$10,000	\$6,000
Combined funding	\$46,000-\$82,000	\$63,000

Outside the scope: Land purchase, major roof repairs, a new generator, fuel stock, clinical UPS, dedicated clinical redundancy, founders' travel/pay and a second site. Add them if required; do not hide them inside the contingency.

Freight and provisional non-recoverable tax/clearance costs are inside the stated allowances where listed. Actual duty, VAT treatment, permits and charges still need a broker/accountant assessment. No tax exemption is assumed. Recoverable VAT, if any, can create an additional timing gap.

Full calculation + editable assumptions

The selected case · change any input

See what has to work.

20 kWp × 1,650 annual kWh/kWp × 85% sold ÷ 12 × \$0.28/kWh.

Sales income / month \$655

Operating costs + reserve \$285

Cash before tax / month \$369

Positive operating cash does not prove an investable return.

Variable operation \$35

Fixed operation \$140

Replacement reserve \$110

Debt payment \$0

Operating cash break-even

\$0.122 / kWh

Includes operation, reserve and the financing input. Does not recover the initial deployment.

Tariff for the capital target · USD/kWh

\$0.453 / kWh

Unlevered illustration: deployment recovered over the input horizon at the input hurdle, after operation and replacement reserve. Working capital is separate. This is not a loan quote or promised return.

[Edit the assumptions +](#)

Installed solar kWp 20 Panel DC rating; electrical design remains separate.

Solar generation yield kWh / kWp / year 1650 1,650 is a planning assumption; replace with a site-specific simulation.

Generated energy sold at the agreed meter % 85 Combines curtailment, conversion/storage losses and matching to demand.

Collected tariff USD / kWh 0.28 Unconfirmed willingness to pay. No automatic saving against grid power.

Variable operation USD / delivered kWh 0.015 Planning provision; grid energy and generator fuel are outside this model.

Fixed operation USD / month 140 Allowance: \$60 site support, \$40 monitoring/admin, \$40 insurance/site costs. Quote each.

Replacement reserve USD / month 110 Provisional \$110; not an engineered battery replacement schedule.

One-time deployment / launch spend USD 57000 Selected planning allowance, not an installed quotation.

Working capital + cash buffer USD 6000 Separate from equipment and launch spending.

Debt / financing payment USD / period 0 Zero means an unlevered model, not free financing.

Capital-recovery horizon years 10 An internal target, not a loan term.

Capital hurdle % / year 10 Illustrative 10% target, not a bank rate.

Changes stay in this page only. They are not uploaded or saved. Reset restores the selected case; the three scenario cards above remain the published comparisons. Editing investment/working capital changes the calculator, not the published budget allowances.

Selected funding inputs: \$63,000. Output: 2,337.5 delivered solar kWh per month.

[How to interpret and stress-test the result](#)

What the result means.

The planning case can be cash-positive yet miss the ten-year capital target. The operating break-even tariff covers running costs and the reserve only; it does not recover the installation. Grid and generator energy must have separate meters and agreed customer-paid costs, or be added to the tariff model. No grid-export income is included.

Stress the case

First test: lower the sold share, increase battery replacement costs, and compare a smaller-storage design. A tariff premium requires a measured customer benefit and acceptable service terms.

Watch the cash timing

Bill monthly from the verified meter. Size liquidity for invoice delays and scheduled service. Stress a 15% GMD depreciation against USD equipment costs; a USD-indexed tariff is a negotiation and affordability issue, not an assumed right.

07 / Evidence register · dated references

Facts with context. Assumptions you can replace.

Sources retain their observation dates. Test allowances: 15 Oct 2026. Solar prospects and first-project scope: 16 Oct. No customer, supplier, financing or partnership agreement is implied.

[Market + operating sources · 5 references](#)

[Market / operating evidence African Princess · operator room inventory Operator page · checked 15 Oct 2026](#)

Advertises 141 rooms/suites with air conditioning and mini-fridges. This is not measured occupancy, electricity demand or willingness to buy.

[Read the original source](#)

[Market / operating evidence World Bank · Africa's Pulse, Fall 2025 2025 publication · 2023/24 survey data](#)

Figure 2.7 places The Gambia among countries with high reported outage incidence. The figure uses 2023/24 Enterprise Survey estimates; it is not a current outage forecast or a survey of our prospects. No exact chart-derived percentage is promoted in the short reading layer.

[Read the original source](#)

Market / operating evidence PURA · published electricity tariffs 2023 determined rates · checked 15 Oct 2026

Published commercial and hotel/industry rates are GMD 14.90 and 15.90/kWh. Use the actual customer bill and check for later decisions before pricing.

Read the original source

Market / operating evidence PURA · renewable energy Regulator · checked 15 Oct 2026

Obtain the applicable site-specific generation, supply and grid-connection requirements. Calling electricity a service does not itself remove licensing obligations.

Read the original source

Market / operating evidence Greenlink · West African projects Supplier descriptions · checked 15 Oct 2026

Publishes Gambian commercial projects, including lease references. Existing assets, dates and contract status must be checked; financing alone is not an unoccupied market.

Read the original source

Solar prospect sources · 30 references

Original nine profiles checked 15 Oct; six additions checked 16 Oct 2026. Operator claims are not site audits. Direct retrieval failures and historical records are labelled individually.

Prospect / market evidence Sharab Hospital · services Operator page · checked 15 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Sharab Hospital · official contact Operator page · checked 15 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Africmed · services Operator page · checked 15 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence FCDO · Gambian medical facilities Updated 29 Sep 2026 · checked 15 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence African Princess · rooms Operator page · checked 15 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence African Princess · official contact Operator page · checked 15 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Westfield Clinic Trust · services and governance Operator page · checked 15 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Kairaba Beach Hotel · official website Operator search result checked 15 Oct 2026 · direct fetch timed out

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Coco Ocean · resort information Operator page · checked 15 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence IFC · Coco Ocean historical environmental review 2008 project review · last updated 2016 · not current plant inventory

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Gambia Hotel Association · member directory Industry association · checked 15 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence ECCBC · Gambega facility Parent-company page · checked 15 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Gambia Revenue Authority · bottling-facility visit 13 Jun 2024 · historical site evidence

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Greenlink · West African project references Supplier references · checked 15 Oct 2026 · current contracts unverified

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Greenlink · dated project archive Includes 2019 Ngala / Bwiam / Central Bank project entries

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence EIB · public-school / health energy programme 6 Mar 2023 · programme targets, not proof of completion

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence GiEPA · solar investment opportunities Investment agency · checked 15 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence GAM-Solar · commercial services Supplier service description · checked 15 Oct 2026 · historical net-metering claims not adopted

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Shyben A. Madi & Sons · energy department Supplier page · checked 15 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence PURA · renewable energy and regulatory context Regulator page · checked 15 Oct 2026 · site-specific authorisation to confirm

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Senegambia Beach Hotel · operator overview 16 Oct 2026 · operator search content; direct fetch timed out

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Bakadaji Hotel · rooms and location Operator page · checked 16 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Kombo Beach Resort · accommodation and facilities Operator page · checked 16 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence TUI BLUE Tamala · facilities and contact Operator page · checked 16 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Ocean Bay Hotel · suite facilities Operator page · checked 16 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Ocean Bay Hotel · location Operator page · checked 16 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Gambia Milling Corporation · company and contact 16 Oct 2026 · operator search content; direct fetch failed

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Seaboard · current portfolio Parent-company page · checked 16 Oct 2026

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Seaboard Overseas · GMC facility profile 7 May 2015 profile · checked 16 Oct 2026; historical capacity

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

Prospect / market evidence Energy ministry · historical electricity policy Historical policy (2014-status discussion) · found 16 Oct 2026; no current inventory

Supports only the linked business description or market context. Confirm current assets, buyer, electrical demand and commercial terms locally before proposing an installation.

Read the original source

First-project equipment + delivery · 10 references

Checked 16 October 2026. Manufacturer references explain components, not supplier selection or local approval. Counts and funding are our illustrative planning scope; no quote, availability or performance guarantee is implied.

Equipment / design scope reference Victron · ESS component guide Manufacturer documentation · checked 16 Oct 2026

Illustrates inverter/charger, batteries, controller, meters and alternative AC/DC solar coupling. A manufacturer architecture example, not our selected hardware or Gambian approval.

Read the original source

Equipment / design scope reference Victron · ESS system design Manufacturer documentation · checked 16 Oct 2026

Relates storage and inverter sizing to system duty and expected loads; addresses anti-islanding. Does not size our site or establish local grid-code acceptance.

Read the original source

Equipment / design scope reference Victron · Lithium NG battery datasheet Manufacturer datasheet · checked 16 Oct 2026

Includes a 51.2 V / 100 Ah, 5.12 kWh LiFePO4 format and BMS requirements. Eight such nominal units illustrate 40.96 kWh, not usable AC energy, a selected battery bank or a complete offer.

Read the original source

Equipment / design scope reference Victron · Cerbo GX monitoring Manufacturer page · checked 16 Oct 2026

Example of local/remote system monitoring, compatible device integration and offline data storage. Our connectivity, alert escalation, permissions and billing integration still need configuration.

Read the original source

Equipment / design scope reference Victron · Quattro inverter/charger Manufacturer page · checked 16 Oct 2026

Shows one architecture accepting two AC sources and multi-phase arrangements. Not a selected unit, generator rating, wiring design or clinical continuity guarantee.

Read the original source

Equipment / design scope reference Victron · Wiring Unlimited Manufacturer reference · checked 16 Oct 2026

Supports rated wiring, fusing and electrical-safety scoping. The site designer must specify actual protection, earthing, cable routes and ratings; no installation instructions are provided here.

Read the original source

Equipment / design scope reference NLR · photovoltaic standard work specification US reference · checked 16 Oct 2026

Supports structural/electrical assessment, roof condition and safe installation planning. This is a technical checklist reference, not Gambian building/electrical law.

Read the original source

Equipment / design scope reference Victron · ESS commissioning Manufacturer documentation · checked 16 Oct 2026

Describes checking supply, storage, metering and generator operation. A qualified team must define and witness site-specific acceptance tests.

Read the original source

Equipment / design scope reference NREL · PV and storage O&M best practices, third edition 2018 report · checked 16 Oct 2026

Historical technical reference for documentation, maintenance and service scope, not a current Gambian service price or local regulatory approval.

Read the original source

Equipment / design scope reference PURA · electricity sector Regulator page · checked 16 Oct 2026

Identifies the electricity regulatory framework and NAWEC's role. Local counsel, PURA and NAWEC must establish the applicable generation/supply, metering, grid and export route for the proposed site; no threshold or exemption inferred.

Read the original source

The supplied concept contributes planning ideas; it is not independent market verification. Public programmes and investments are not funding commitments to us. No grant, subsidy, customer prepayment, credit facility or certification is included unless the financial scope explicitly says so.

[Cost + finance sources · 7 references](#)

[Local reference PURA · electricity tariff table 2023 determined rates · checked 14 Oct 2026](#)

The regulator currently displays GMD 14.90/kWh commercial and GMD 15.90/kWh hotel/industry. At the 15 Oct CBG valuation these are about \$0.2035 and \$0.2172/kWh. Confirm the actual bill, meter class and any later change. The older Ministry page displays lower rates and is not used.

[Read the original source](#)

[Priced equipment reference Victron · manufacturer price list Q4 2026 · EUR ex VAT · p.17](#)

51.2V/100Ah NG battery: €2,135 for 5.12 nominal kWh. Eight units: 40.96 kWh, €17,080, approximately \$19,932 at the 14 Oct indicative cross-rate (about \$19,518 at 15 Oct). Battery equipment only; BMS, cabinets, controls, freight, tax and installation extra. This is a benchmark, not the selected design.

[Read the original source](#)

[Required validation PURA · renewable energy Gambia · regulatory context](#)

Confirm the applicable generation / supply and connection route. Surplus export needs explicit technical and commercial approval; it is excluded from the revenue case.

[Read the original source](#)

[First-test rental benchmark Adastral · Fluke 1730 hire 15 Oct 2026 · UK supplier](#)

Published £19/day, minimum seven days, excluding VAT. Fourteen days = £266, approximately \$352 using the dated CBG valuation. The supplier has not quoted for Gambia or agreed overseas hire. Source anchors equipment rental only; availability, calibration, deposits, logistics and local services need quotes.

[Read the original source](#)

[Dated FX reference CBG · first-test currency conversion 15 Oct 2026 · daily valuation](#)

GMD per currency unit: USD 73.22; GBP 96.94; AED 19.94; EUR 83.67. Rounded USD cross-rates are used only for the new first-test references. Valuation is not a bank dealing rate. Earlier investment references retain their original dated conversions.

[Read the original source](#)

[FX reference CBG · daily valuation 15 Oct 2026 · The Gambia](#)

The CBG homepage displayed GMD 73.22/USD, 83.67/EUR and 4.40/ZAR. Indicative cross-rates: USD 1.143/EUR and USD 0.06009/ZAR. Valuation rates are not dealing rates. Earlier equipment-reference conversions retain their original observation date; no planning allowance is a binding offer.

[Read the original source](#)

Local confirmation Gambia Revenue Authority · tax and customs Current official document portal

Obtain a product-code-specific landed-cost and tax assessment. No import-duty exemption, recoverable VAT or investment incentive is assumed. Tax and clearance allowances below are provisional amounts, not statutory rates.

Read the original source

Before an investment decision

Replace the allowances with complete local/landed quotes, the sales inputs with customer or buyer evidence, and the operating inputs with a measured pilot. Add taxes, founder costs, month-by-month seasonality, exchange exposure and financing terms to the full cash-flow forecast. These transparent pre-feasibility cases are the starting point for that work.

Solar power

Prove one. Build from what works.