



**NILEPHASE**  
ENERGY

FREE BUYER'S GUIDE

# The Uganda Solar Buyer's Checklist

20 things every honest quote must include —  
and the 5 red flags that tell you to walk away.

**Built from 180+ hybrid solar installs across Uganda since 2024.**

Written by the engineers who quote, install and commission — not a sales desk.

Engineering-led power systems

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**BEFORE YOU SIGN****Read this before you pay any deposit.**

Most solar disappointments in Uganda are not bad panels — they are bad quotes. A vague, lump-sum quote hides an undersized inverter, a mystery battery, or skipped commissioning, and you only discover it when the system trips during the first cloudy week. This checklist is the same one our engineers use on every site. Print it, take it to any installer, and tick the boxes as you go. If a quote can't fill these in, that tells you everything.

**PART 1 — THE QUOTE****20 things an honest solar quote must include**

- 1. System size, in real units.** Array size in kW and inverter size in kVA — stated, not “don’t worry, it’s enough.”
- 2. Every panel named.** Brand, model, wattage, quantity and Tier-1 status — not just “solar panels.”
- 3. The inverter, fully specified.** Brand, model, kVA rating, hybrid/off-grid/grid-tie, and number of MPPTs.
- 4. The battery, fully specified.** Chemistry (LiFePO4 vs lead-acid), **usable kWh**, brand, model, quantity and cycle warranty.
- 5. Mounting structure.** Roof type it suits, rail brand, and corrosion rating — it must outlive the panels.
- 6. Cable sizing.** DC and AC cable sizes in mm<sup>2</sup>, conduit, and proper labelling.
- 7. Protection & earthing.** DC isolators, AC breakers, surge protection (SPD), fuses and a proper earth.
- 8. An energy audit.** Your daily kWh load, and how the system was sized to *your* usage — not a copy-paste package.
- 9. Backup autonomy.** How many hours (or days) the battery carries your critical loads with no sun.
- 10. Expected generation.** Estimated daily and monthly kWh for your location and roof.
- 11. Itemised pricing.** A price line for each component — not one lump sum you can’t question.
- 12. Labour separated.** Installation and labour costed on their own line.
- 13. Delivery to your site.** Transport stated — especially if you are upcountry.
- 14. Commissioning included.** Testing, settings configuration, and a **written commissioning report** in the price.
- 15. Warranties in writing.** Per component — panels, inverter, battery — plus a workmanship warranty.
- 16. After-sales plan.** Maintenance, the channel to reach support, and who actually picks up.
- 17. Lead time.** A realistic supply and installation schedule.
- 18. Payment milestones.** What each payment covers, and what triggers the next one.
- 19. Compliance.** Confirmation the installer is ERA-registered and which standards are followed.
- 20. A named engineer.** The person responsible for your install — not only a salesperson’s number.

Rule of thumb: if every box above is ticked, you are looking at an engineering quote. If half are blank, you are looking at a sales pitch.

**PART 2 — RED FLAGS****5 red flags that say walk away****1. One lump-sum price, no itemisation.**

If you can't see what each panel, inverter and battery costs, you can't tell what's been cut to win the price.

**2. An inverter smaller than your peak load.**

"It'll be fine" is how you get an inverter that trips every time the kettle and the pump run together — and fails early.

**3. A battery quoted only in "amps" or Ah, with no chemistry.**

No usable kWh and no LiFePO4/lead-acid spec usually hides an undersized or short-life battery.

**4. No commissioning report, no settings documentation.**

Around 75% of African solar systems fail from configuration errors, not faulty hardware. No paperwork means no one tuned it — and no one can fix it later.

**5. Full deposit demanded upfront, warranty promised verbally, no engineer named.**

Money should follow milestones, warranties should be on paper, and a real person should own the result.

**PART 3 — BEFORE YOU PAY****The 4 questions to ask before any deposit**

- Q1.** "Can I see the itemised quote, with brand and model for every panel, inverter and battery?"
- Q2.** "What is the inverter kVA and the battery's usable kWh — and how were they sized to my actual load?"
- Q3.** "Is a written commissioning report included — and can I see a sample from a past install?"
- Q4.** "Who is the ERA-registered engineer responsible for my installation, and what is the workmanship warranty?"



PART 4 — WHAT GOOD LOOKS LIKE

### What a real commissioning report contains

Commissioning is where a system is actually made to work. A proper handover pack should show:

- ✓ Measured string voltages and currents for each MPPT.
- ✓ Inverter settings recorded: charge/discharge limits, grid vs generator priority, battery profile.
- ✓ Battery state-of-charge calibration and protection thresholds.
- ✓ Earthing continuity and AC/DC isolation test results.
- ✓ A load test — proof the system carries your real loads, with photos.
- ✓ Engineer's name, date, and sign-off you keep a copy of.

### Warranty terms that mean something (and ones that don't)

Worth having	Be careful of
Panel performance warranty with a number, e.g. 25 years to 80% output.	“Lifetime” warranty with no written terms.
Inverter manufacturer warranty (often 5–10 yrs) registered in your name.	Warranty held by the installer, never registered with the maker.
Battery warranty in cycles and years, e.g. 6,000 cycles / 10 yrs.	Battery “guaranteed” verbally, nothing on paper.
Workmanship warranty, in writing, with a maintenance offer.	“Void if anyone touches it” — but no service offered.

### Want us to check your quote — or write you a straight one?

Send us the quote you're holding and we'll tell you what's missing — no obligation. Or get an itemised, engineer-built quote from NilePhase. Free site visit across Greater Kampala, and a written commissioning report on every install. Message Eng. Rory on WhatsApp for a fast, same-day reply.

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