

Home H3, Chiang Rai

Constant grid trips - about 65% of energy lost

Fix now

22 kWp

PV · 20 kW inverter

647 kWh

PV, 1-24 Oct

1.40

kWh/kWp/day

-

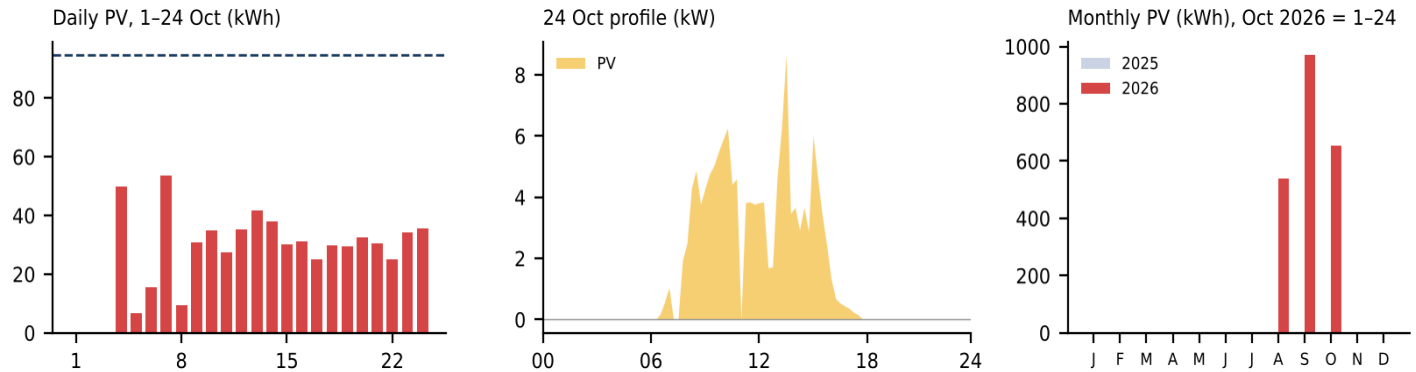
Consumption

-

Bought from grid

-

Exported



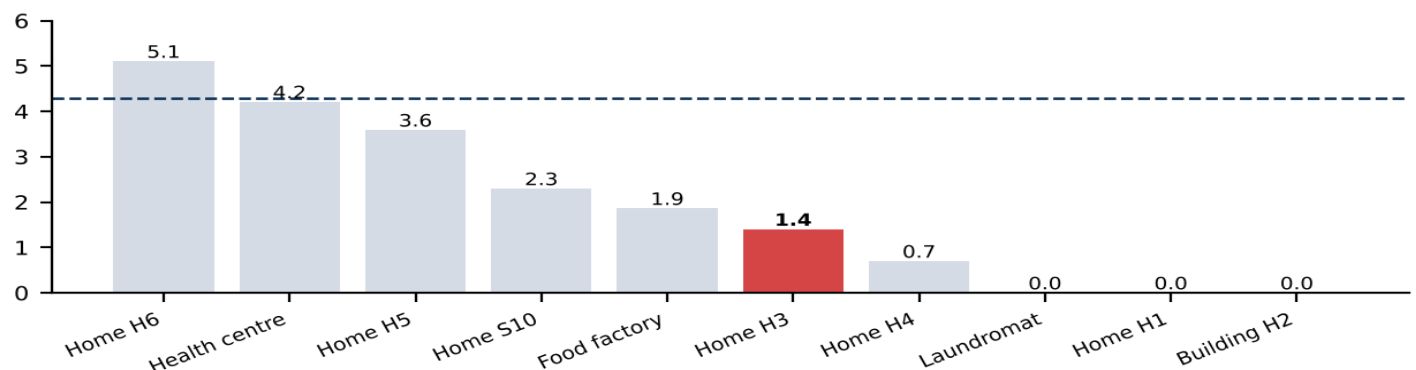
What we found

- 22 kWp on four 5 kW inverters averaged only 30.8 kWh a day (1.4 kWh/kWp) on 4-24 October. At 4.3 kWh/kWp it should make about 95 kWh a day.
- There were more than 4,800 grid trips on all four inverters in October: overfrequency (1,879), overvoltage (1,810), Grid Failed (629) and underfrequency (527). The profile shows output repeatedly dropping to zero.
- Grid voltage at the inverters was already 246-250 V at 10:00 under low load. The overvoltage trip point is about 253 V, so it trips whenever output rises.
- The frequency trips point to an unstable source, such as a weak rural line, a generator, or the output of an off-grid inverter.
- The power meter is disconnected ("Faulty Power Collector"), so FusionSolar has no consumption or grid data.

What to do

1. Find out what the inverters are actually connected to: the PEA grid, a generator, or an off-grid or backup inverter. If they are AC-coupled behind an off-grid inverter, the settings for that set-up have to be applied.
2. Measure voltage at the meter and at the inverters through a sunny day. If the PEA voltage is high, ask PEA to check the transformer tap. Check that the AC cable to the main board is large enough to keep voltage rise below 2%.
3. Fix the power meter's RS485 link (the CT/LAN cable job already planned) so that consumption and export can be measured.
4. Recovering 60 kWh a day is worth about 8,000 THB a month.

How this plant compares (kWh/kWp per day, 1-24 Oct)



Rank 6 of 10 Huawei plants. Dashed line = expected 4.3 kWh/kWp per day.