

Liberia Electricity strengthening and Access Project Phase 1 - (LESSAP-1) Achievements and lessons learned

RREA Brown Bag Lunch

8 October 2026



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LESSAP 1: Key Results

Health facilities Solarized

90 / 90

90 rural health facilities solarized nationwide, across all 15 counties.

Solar streetlights
Installed

468

117 lights in each of four rural cities. Reported road coverage totals 13.4km.

SHS sold
19,162

Sales reported under RBF. Final claims verification and eligible payments remain pending.

Alternative electricity generation support to LIRENAP Lofa Mini-grid supporting electrification for 10,317 connections benefitting 50,000 people

1. Financed through LESSAP I to strengthen the LIRENAP Lofa County mini-grid.
2. Completed and handed over on June 30, 2026.
3. Provides backup power during reduced hydropower availability, improving supply reliability.



Powering Healthcare Through Solar Electrification

100% of the installation target achieved

Service delivery: Solar power supports lighting, and essential medical equipment.

Remote monitoring: Data Logger (Victron and Solar Starlink connectivity deployed at 82 health facilities to support system monitoring.

Long-term sustainability: Two years of O&M support, with a lifecycle maintenance framework being established to ensure sustained funding, clear responsibilities, local repair capacity and planned component replacement..



Monolu clinic in Maryland county



Photos of Beneficiary Healthcare Facilities



TECNO SPARK 10c

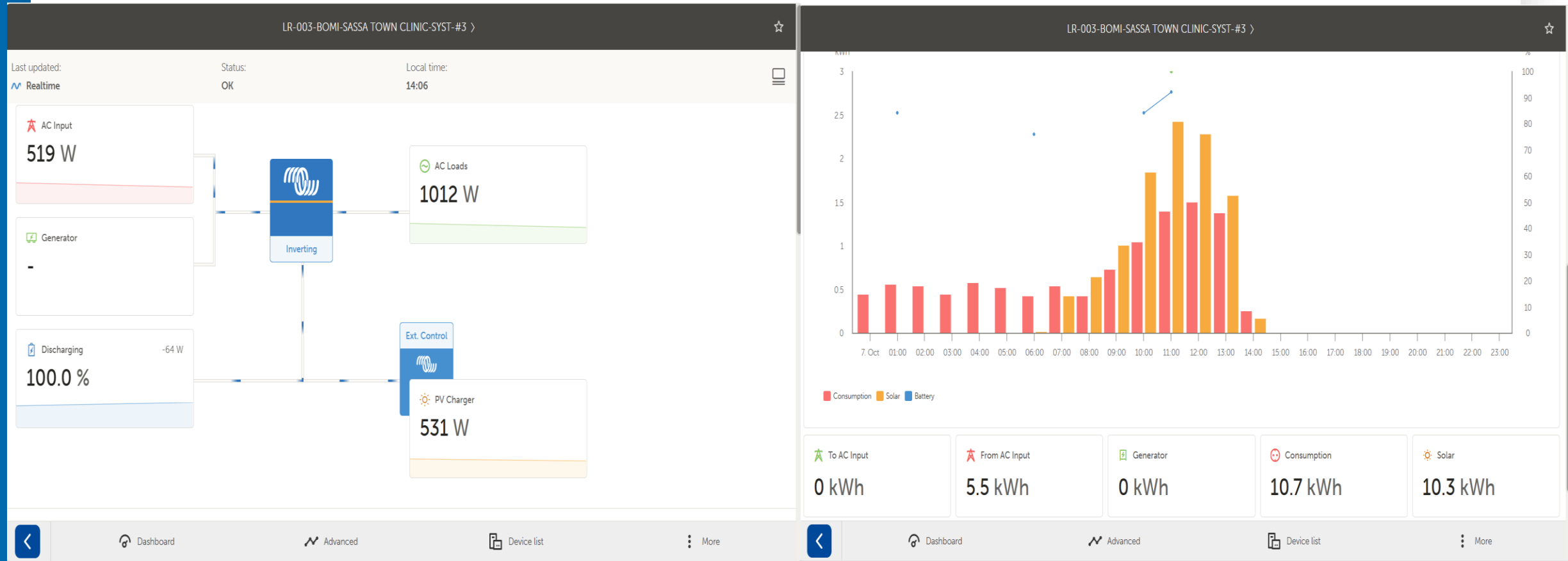
St. John clinic in Grand Bassa county



Jenneh # 3 clinic in Bomi county



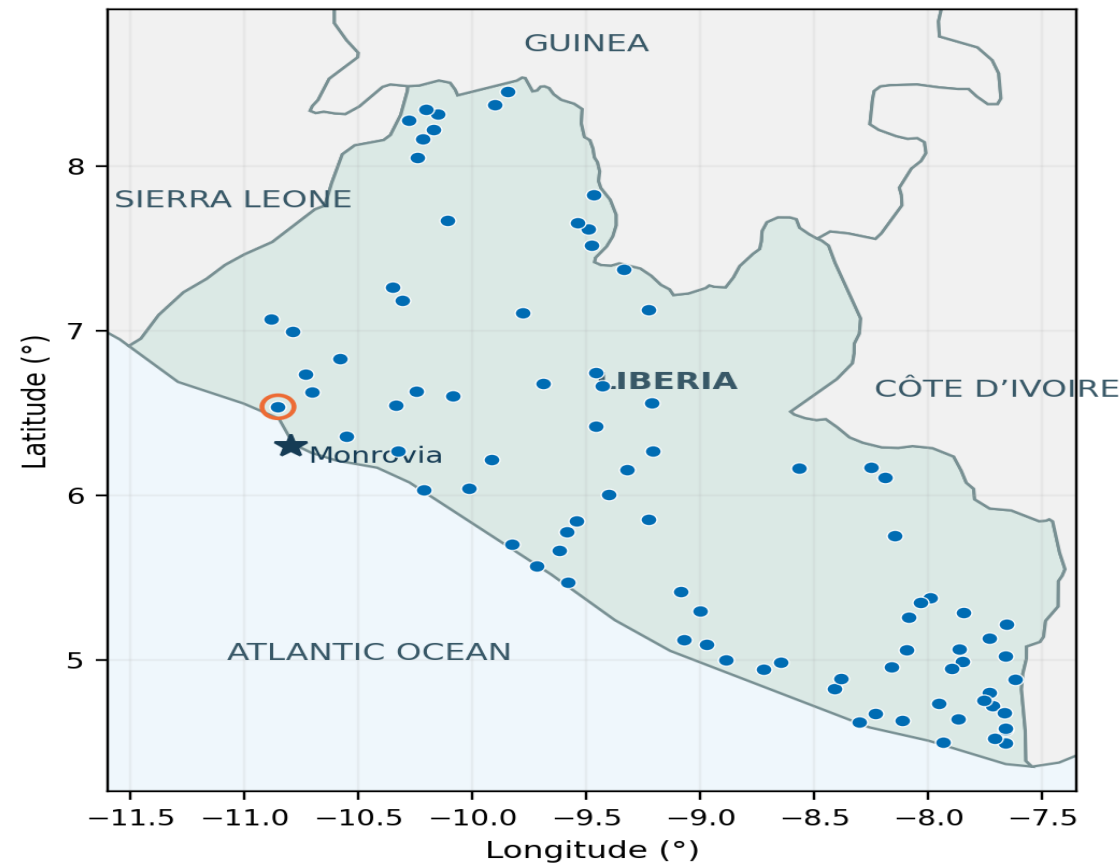
Real-Time Solar Energy Monitoring at Healthcare Facilities via Victron (JENNEH #3 Clinic)





Solar PV Electrification of HealthCare Facilities under LESSAP I

A geospatial visualization of all 90 healthcare facilities electrified under LESSAP I



Blue dots: supplied and installed PV at facility locations



WHAT WAS SERVED

Seven PV system sizes/ types tailored to meet Health facilities' energy needs

Systems 1-8 span 2.2 kWp to 55 kWp across the health-facility intervention.

SYSTEM	PV CAPACITY	Battery Capacity
System 2	3 kWp	10 KWh
System 3	4 kWp	15 KWh
System 4	6 kWp	20 KWh
System 5	10 kWp	30 KWh
System 6	15 kWp	50 KWh
System 7	18 kWp	70 KWh
System 8	55 kWp	100 KWh

SYSTEM RANGE

2.2 - 55 kWp

**8 standardized
system sizes**

Selection was based
on each facility's
assessed energy need.



Rural Solar Streetlighting

468 solar streetlights installed, commissioned and operational

Four beneficiary cities: Barclayville, Karweaken, Zorzor and Harper.

Total coverage: 13.4 km.

Benefits: Improved public safety, nighttime mobility and local economic activity.

Sustainability: Remaining operations and maintenance transferred to LESSAP II.



Barclayville at night



Solar home systems surpassed the access target

95,810 people reached versus a target of 78,000.

19,162

SHS sales reported
Target: 15,600

95,810

people reached
Target: 78,000

Tiered SHS packages extend electricity access to rural households.

CLOSE-OUT PRIORITIES

- Complete final verification and confirm eligible payments.
- Close the remaining claims review.
- Process the final IVA payment.

TIER 1-2 OFFGRID LIGHTING PRODUCT DISTRIBUTED WITH
MULTIPLE LIGHTING POINTS AND CHARGING OF APPLIANCES

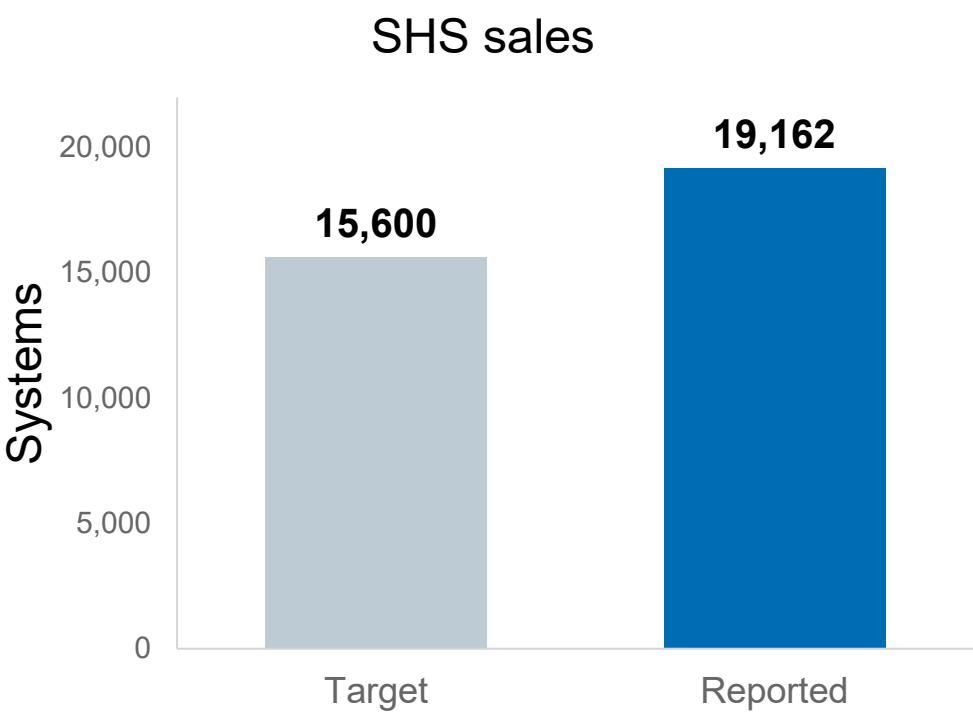
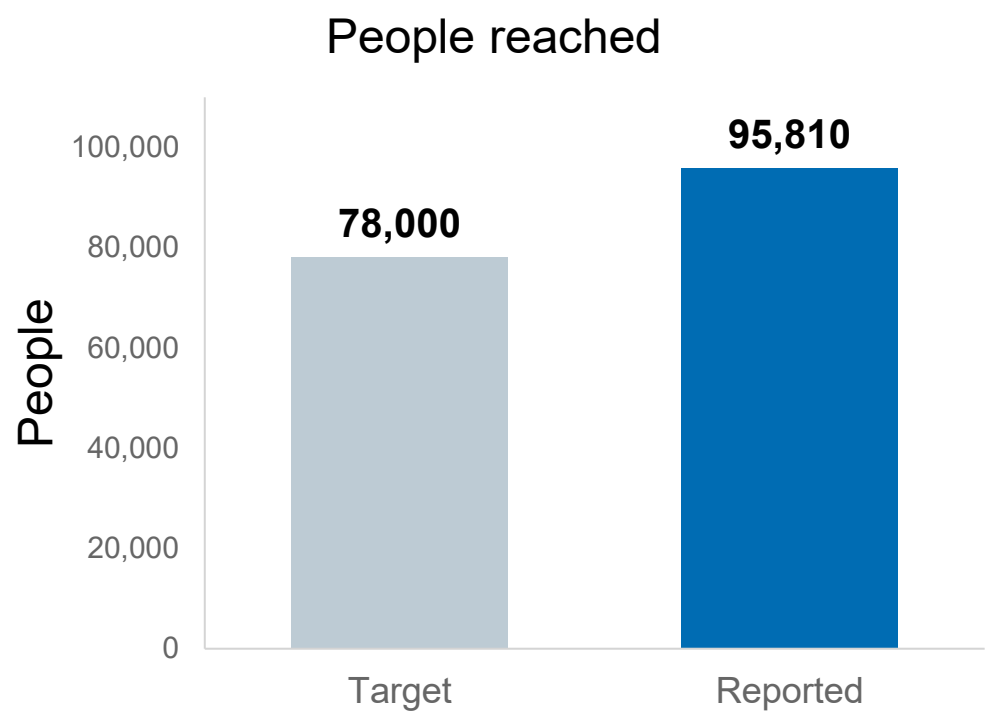


*SHS System installed in a home in
Gbarpulo County*



Solar home systems: target and reported results

Reported sales and people reached each exceeded the target by 22.8%





Implementation lessons for discussion

01- O&M Sustainability

1. Current O&M arrangement and fundings are for two (2) years.
2. Secure continued O&M funding.

02 - Remote-Site Delivery

1. Plan around seasonal access constraints.
2. Adapt supervision to remote locations during dry season or when accessible
3. Apply climate-resilient designs.

03 - RBF Performance

1. Link payments to verified functionality.
2. Adapt targets to provider capacity.
3. Local market supply-side actors have limited technical & financial capacities.



Implementation Challenges and Mitigation — Component 2

Challenge	Proposed Mitigation
Remote access and seasonal rains	Schedule deliveries before the rainy season and strengthen local supervision.
Limited household affordability under SHS RBF	Coordinate targeted subsidies and flexible payment options.
Uneven SHS RBF companies' capacity	Set realistic delivery targets and provide focused support to underperforming firms.
Long-term O&M sustainability	Establish an effective lifecycle O&M framework for health facility solar systems, with clear responsibilities, sustained funding, preventive maintenance, timely repairs and component replacement.



Maintain the systems, strengthen local response capacity and verify service performance.

“No child will be born in the dark by 2030.”

Thank you



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