



# Reliable Solar Hot Water to West Africa's Fastest- Growing Markets

Patented, German-engineered solar water heaters distributed from Togo into West Africa – reliable hot water, lower electricity bills, strong margins for partners.



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## 1. Problem & Market Drivers

# West Africa's Hot Water Crisis: Unreliable, Unsafe, or Expensive

**The Problem:** No solution delivers Reliability + Safety + Affordability simultaneously. Current options force customers to choose between grid-independence, health risks, or high costs.

### CURRENT BOILER TYPES VS MARKET REQUIREMENTS

Boiler types	Reliability	Safety	Affordability	Upfront Costs
Electricity Boilers	✓	✓	✗	€600 - 1,300
Passive Solar	✗	✗	✗	€450 - 850

### MARKET DRIVERS

- ✓ Energy Poverty: 60% without reliable electricity
- ✓ Grid Instability: Frequent outages, €0.15-0.25/kWh rising
- ✓ Climate Advantage: 3,500+ kWh/m<sup>2</sup>/year ideal for solar
- ✓ Growing Middle Class: Demand +5-7%/year

**But what if there was a solution that checked all boxes?**

## 2. Solution

# German Solar Boiler Technology: 24/7 Hot Water – Safe, Reliable, Affordable

**THE ONLY SOLUTION** that solves all problems simultaneously.  
Technology Partner: fothermo (Germany)

### Hot Water 24/7

Insulated storage

### Safe & Hygienic

Sealed system

### Zero Operating Cost

Solar-powered pump

### Affordable

€323 / 415 End customer retail price



Setup of system:

1 solar panel (500W) for 30l version

2 panels (2\*500W) for 80l version

### 3. Product Features & USPs

# German Engineering. African Conditions. Proven Performance.

Two scalable sizes (30L/80L) battle-tested in Namibia, now ready for West Africa.



## 80L Model

**€415** (end customer retail price)



## 30L Model

**€323** (end customer retail price)

## Five Key Differentiators

- Solar-powered pump & heating
- Sealed system
- High-flow design
- Premium insulation
- German engineering

## Proven in Market

- Proven in Namibia (by fothermo)
- Tested in similar climates
- Trusted by regional utilities & B2B distributors

## 5-Year TCO Comparison

Our Solution: €415/323 (end customer retail price)

Passive Solar: €650

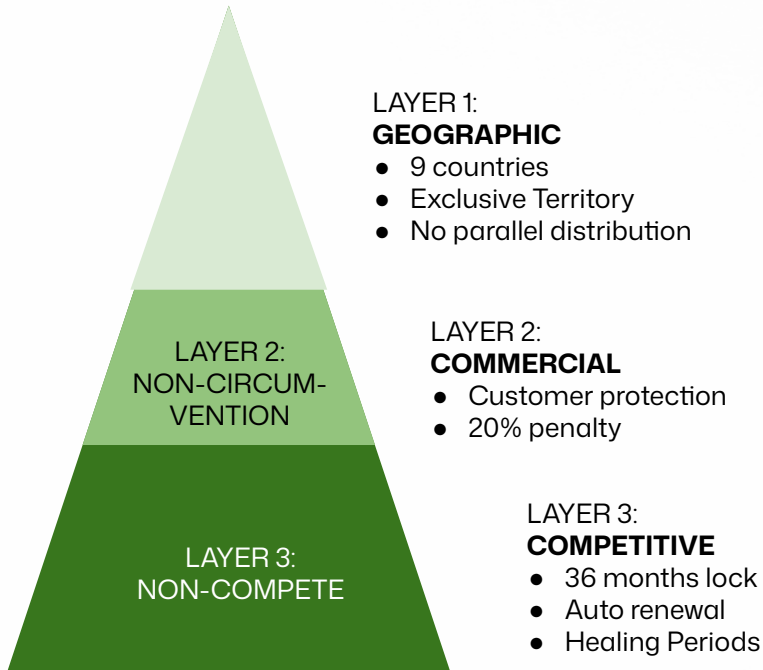
Electric: up to €6K

#### 4. Partnership: Three-Layer Exclusivity

# Defensible Moat: 9-Country Exclusive Rights

Three-layer legal protection makes circumvention expensive and enforceable

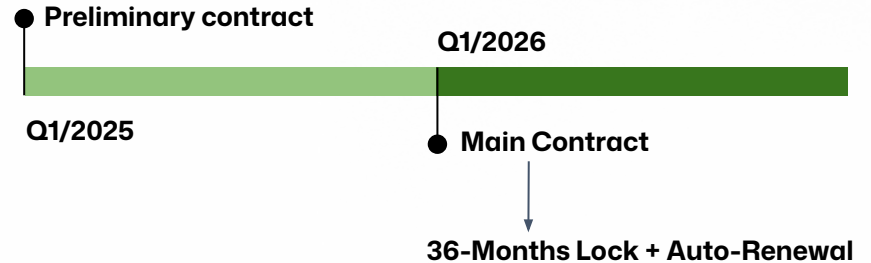
## PARTNERSHIP STRUCTURE: THREE-LAYER EXCLUSIVITY LOCK



## KEY INSIGHTS

- Three-layer protection makes circumvention expensive and legally risky for fothermo.
- Auto-renewal mechanic aligns incentives: strong performance = longer term.
- \$1, \$8, \$9, \$10 Distribution Agreement

## TIMELINE



## 5. Go-to-Market Strategy

# 9-Country Exclusive Territory: 86M Households, 0% Penetration

B2B distributor network model with first-mover advantage

## Exclusive Distribution Territory

**Negotiated with manufacturer.** Sufficient for initial targets; option to expand across African markets post-launch.



### Market size

Country	# households (M)	% of Total
Nigeria	48M	56%
Ghana	8M	9%
Ivory Coast	6M	7%
Cameroon	6M	7%
Niger	5M	6%
Mali	5M	5%
Burkina Faso	4M	5%
Benin	3M	3%
Togo	2M	2%
<b>TOTAL</b>	<b>86M</b>	<b>100%</b>

## Go-to-Market Strategy

- ✓ Distributor Network Model
- ✓ Exclusive Territory Rights
- ✓ First-Mover Advantage

B2B wholesale to country-level distributors  
Defensible market position per country  
Early network effect & brand loyalty

## Addressable Market

# 86.2M

Total Households Within 9 Countries

# 0%

Current Market Penetration.  
No viable solar thermal solutions at scale

# 61,160

Our 36-Month Deployment Target

## Built to Scale Beyond

Plan conservatively. Execute aggressively  
10x-ready infrastructure post-breakeven

## 6. Competition

# Market Entry Strategy: 3 Growth Drivers Across 9 Countries

Solar economics, government subsidies, and fragmented markets create distinct entry opportunities

Country	Market Size	Context	Incumbent Position	Growth Driver
Growth driver: SOLAR ECONOMICS (High Tariffs)				Solar Economics
NIGERIA	237M	70% Electric   Solar emerging	Ariston 60-70%*	High tariffs = solar ROI compelling
GHANA	34M	Best infrastructure   Premium segment	Ariston 60-70%*	Premium buyers willing to pay for quality
Growth driver: GOVERNMENT SUBSIDIES (Policy Tail-winds)				Government Subsidies
BURKINA FASO	24M	Solar 80%+   Gov programs strong	APEES local	ECOWAS 50% subsidy, 92 MWp target
BENIN	14M	Gov rollout (650 units 2025)   Solar 80%+	Premier Energies	650-unit rollout, 12.16% CAGR gov-backed
Growth driver: MARKET FRAGMENTATION (No Incumbent)				Market Fragmentation
TOGO	9M	Low penetration   \$100M World Bank TUWS	No dominant player	YOUR EXCLUSIVE TERRITORY
CAMEROON	28M	Commercial-focused (+7.89% CAGR)	Ariston 50-60%*	Commercial segment underserved
Monitor: Emerging Potential				Market Fragmentation; Gov't policy & solar economics
CÔTE D'IVOIRE	31M	Largest market (USD 140M)   Emerging residential	Ariston 55-65%*	Largest market, nascent residential
MALI & NIGER	25M + 27M	Solar policy targets   Water scarcity	Emerging / Unclear	Government policy + Solar economics

\* Market share  
Incumbent Strength:  
Green = Weak  
Orange = Medium  
Red = Strong

## Entry Strategies by Driver

### Solar Economy (Nigeria / Ghana)

- 1-2 yr payback
- Premium position
- Direct distribution

### Government Subsidies (Burkina / Benin)

- Gov't tenders
- Subsidy align
- 650 unit part

### Fragment (Togo / Cameroon)

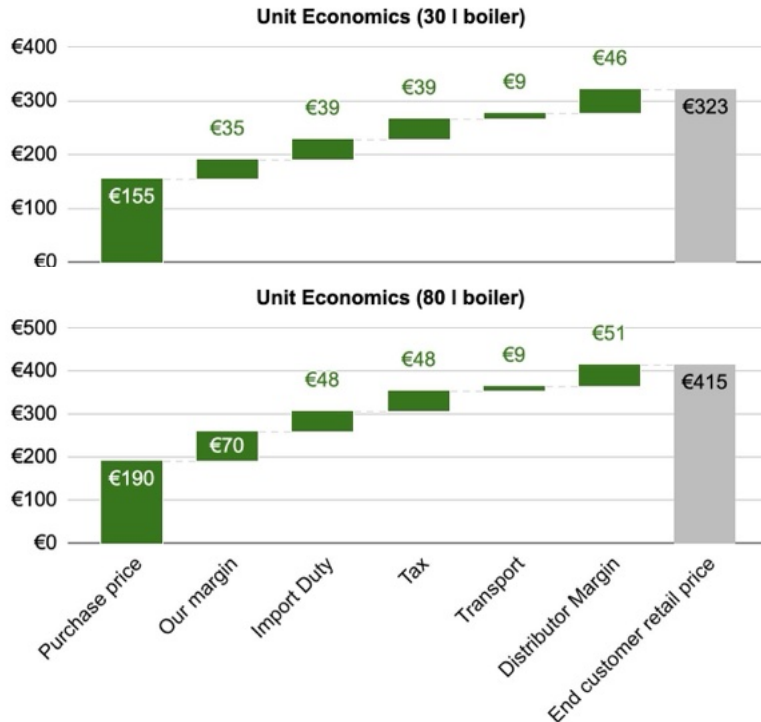
- Territory development
- B2B focus
- Direct networking

### (Monitor) (Ivoire / Mali / Niger)

- Monitor policy dev't
- Build stakeh. relationships
- Later market entry

# B2B Wholesale with Escrow-Backed Minimum Commitments

## UNIT ECONOMICS (30L & 80L Models)



## KEY METRICS & MARKET POSITIONINGS

- 27%/18% Unit Margin
- €1.3M Gross Profit
- Payment Upfront (50%) and At Delivery (50%)
- Blended Margin Across Product Mix
- Transparent Unit economics

## UNIT ECONOMICS STRENGTH

- 80L: €260 | €70 GP (27%)
- 30L: €190 | €35 GP (18%)
- Resilient Margins Across Price Points

## 36-MONTH DEPLOYMENT (60,160 Units)

- 61,160 Units - 70/30 Mix (30 L / 80 L boilers):
- Your Total Revenue: €13.3M

## CASH FLOW ADVANTAGE

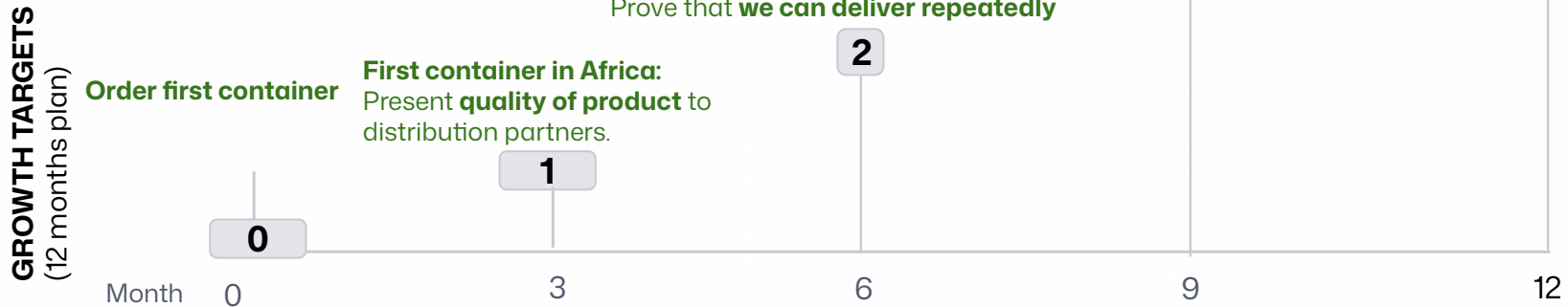
- Payment: 50% upfront; 50% upon arrival of the bill of lading
- Escrow-Backed Minimum
  - Purchase guarantees
  - Zero distributor default risk
  - **RESULT: Highly Predictable, Low-Risk Cash Flow**

# Contractual minimums + 20-year regional network de-risk revenue ramp

## ACTUAL TRACTION (as of 02/2026):

- 2 pre-contracts in negotiation (LOIs)
- Regulatory & import approvals: In progress
- Manufacturing partnerships: Confirmed

5+ Exclusive Distributors  
Scale up phase



## KEY DE-RISKING FACTORS:

- ✓ Contractual Minimums & Escrow-Backed Commitments
- ✓ 20+ Years Regional Trading Expertise
- ✓ Pre-Qualified Distributor Pipeline
- ✓ Confirmed Logistics & Supply Partnerships

## 9. Impact & SDGs

**At 26.4k systems sold per year, our installed base avoids ~49 million tonnes of CO<sub>2</sub> over its 20-year lifetime**

### Your Investment (36 months)

**5,723**

Metric Tonnes CO<sub>2</sub> Avoided

**€921K**

Customer Savings

**61k**

Systems Deployed

### Per 80L System (Over 20-Year Lifetime)

**28.44**

Metric Tonnes CO<sub>2</sub> Avoided

**€4.7k**

Customers Cost Savings

**20 years**

Systems Design Lifespan

**SDG 7** (Affordable & Clean Energy) & **SDG 12** (Responsible Consumption & Production)

## 10. Team

# Why This Team Executes: Complementary Expertise + Aligned Incentives



## Jens Langguth

### Market & Execution (Togo)

- 20+ years West Africa trader
- Owns warehouse + customs/logistics network (9 countries)
- Deep distributor relationships & merchant expertise



## Markus Pohl

### Capital & Governance (Germany)

- €8M+ deployed (Microsoft, WFP, BMZ, GIZ, BCG, MFA)
- Co-founded multiple companies (health tech, consulting)
- Proven capital access & donor partnerships



## Celine Langguth

### Ops & Legitimacy (Togo)

- Togo native, deep institutional relationships (government, customs, logistics)
- Leads ops, brand building & compliance
- Tax incentive eligible (young entrepreneur status)

### THE THESIS:

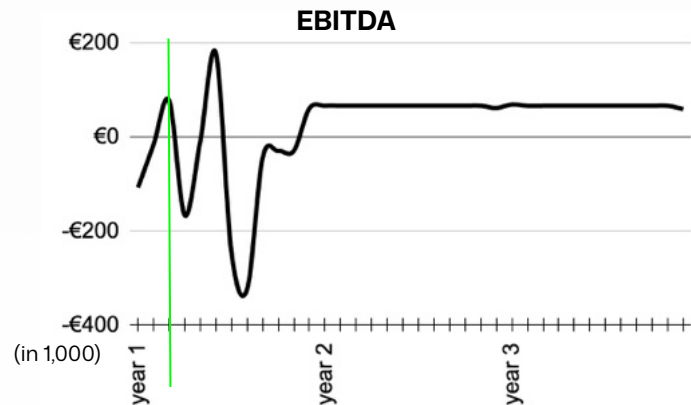
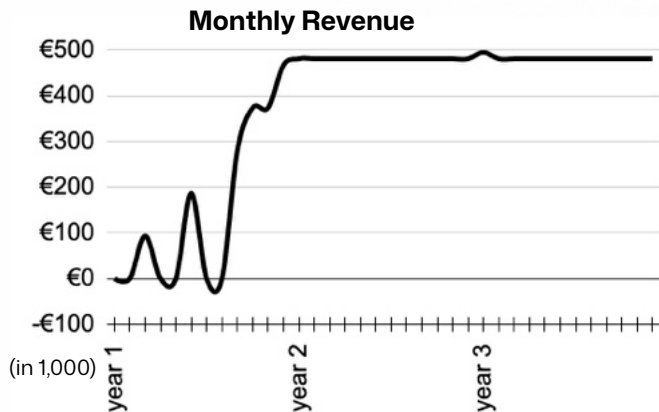
Market access + capital expertise + local legitimacy  
= defensible execution moat

### GOVERNANCE ASSURANCES:

- Clear role separation (Finance/Operations)
- Board seat for lender + KPI-based reporting
- Conservative leverage (DSCR covenant, equity skin-in-game)

## 11. Financial Summary

**Monthly break-even by Month 3. €61k Monthly EBITDA by Month 12, ~€66K/Month avg. in Year 2+. Loan fully repaid by Month 31**



Positive monthly cash flow from month 3.  
€61K+ monthly EBITDA by month 12.

**Month 12**

### Monthly Revenue (M12)

€467,000

Steady-state run-rate by month 12

**Month 12+**

### Monthly EBITDA (M12+)

€61k at M12 | €66k avg. Year 2+

Debt service coverage (EBITDA / scheduled debt service): ~3.0x in month 12 (post-ramp)..

**Month 36**

### Closing Cash Balance (M36)

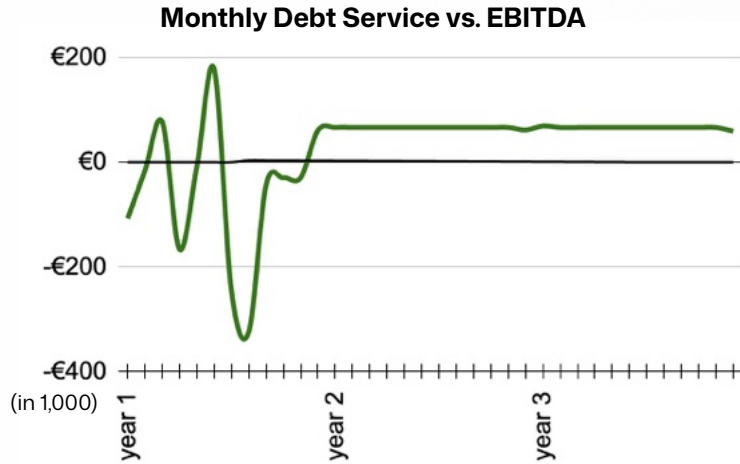
€1,259,000

After full debt repayment

Includes €50k RCF (available from month 4; 10% p.a. interest; 0.5% p.a. undrawn fee).

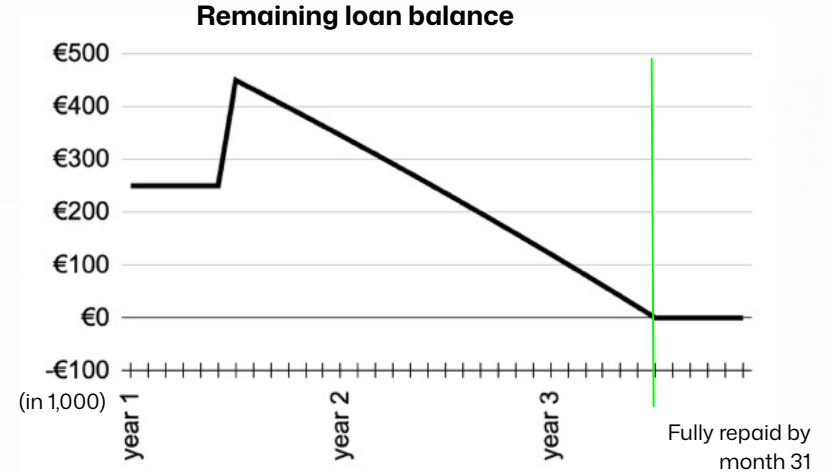
## 12. Debt Service & De-Risking

### €450k Loan Fully Repaid by Month 31 – Exceptional Coverage Ratio



#### Debt Service Coverage Ratio

Debt Service Coverage Ratio (EBITDA / scheduled debt service):  
~3.0x at month 12; coverage improves further as operations scale



Graph shows EBITDA significantly exceeding debt service requirements after the initial ramp-up period. €30k minimum cash reserve maintained at all times, supported by €50k RCF from Month 4.

#### Liquidity Buffer

€30k Minimum Cash Reserve at All Times

- €50k RCF available from Month 4
- Never drawn below €30k cash on hand
- Protects against timing mismatches

### 13. Funding Need & Structure

# We're raising €450k (€250k in M1 + €200k in M7) to finance inventory and launch distribution across 9 markets

Loan fully repaid by month 31 (24-month amortising schedule; repayments start month 8) at 10% interest.

"Liquidity Management: €50k RCF (revolving), available from Month 4. €30k minimum cash reserve maintained at all times to protect against timing mismatches. Pricing: 10% p.a. interest + 0.5% p.a. undrawn commitment fee"

## Initial Capital Deployment (Month 1)

Initial Inventory (Boilers, Panels, Accessories): €277k

Logistics & Warehouse:  
€12k

Team & Operations  
€7k

Working Capital €154k

**Total initial raise: €450k**

All funds deployed in month 1 to launch operations across 9 markets  
Loan repayment begins month 8 (24-month amortising schedule; fully repaid by month 31).

## Capital Deployment Details

- DFI Loan: €450k @ 10% p.a.
- Tenor: 24-month amortising schedule (repayments start month 8; fully repaid by month 31 in model)
- Security: Inventory & receivables from exclusive distributors
- Preferred: Debt
- Liquidity Buffer: €30k minimum cash reserve

## Financing Terms

Structure DFI Loan	Tenor 2 Years	Repayment from year 1
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#### 14. Our Ask & Next Steps

# DFI Loan: €450k @ 10% p.a. | Fully Repaid Month 31 61,000 Systems Deployed | 305,000 Lives Impacted | €13.3M Revenue

## YOUR INVESTMENT DELIVERS

- Month 12: Cash positive
- Month 31: Full repayment (13.5% Target IRR)
- 36 months: 61k units | 305k lives | €13.3M revenue

## TIME TO DEPLOYMENT

- Week 1-2: Due diligence & data room access
- Week 3-4: Financial audit & legal review
- Week 5-6: Term sheet negotiation
- Week 7-8: Final approvals & closing
- Month 3: First disbursement → Container ships Q1/2026

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**Let's accelerate sustainable energy access together.**