

Unlocking barriers to large-scale deployment of individual solar systems



Panel

Leigh Vial World Bank consultant

Timothy Shekarau Rural Electrification Agency

Besnik Hyseni World Bank

Schedule

<u>Unlocking Barriers to Scale</u>	
15	<ul style="list-style-type: none">• Constraints to scale
15	<ul style="list-style-type: none">• Regulatory changes needed?
15	<ul style="list-style-type: none">• Best financial support?
15	<ul style="list-style-type: none">• How to reach harder areas?
<u>Nigeria Electrification Project</u>	
10	<ul style="list-style-type: none">• Overview
15	<ul style="list-style-type: none">• Feedback
<u>Wrap up</u>	

1. What are the significant constraints to rapid scale?

5	<u>List</u> significant issues
10	<u>Discuss</u> and rate issues

2. What regulatory changes are the most important?

5	<u>List</u> proposed changes
10	<u>Discuss</u> and rate issues

3. What are the best ways to apply financial support to reach more people?

5	<u>List</u> best ways
10	<u>Discuss</u> and rate issues

4. What are the best ways to enable solar home system companies to reach challenging areas?

5	<u>List</u> best ways
10	<u>Discuss</u> and rate issues

Schedule

<u>Unlocking Barriers to Scale</u>	
15	<ul style="list-style-type: none">• Constraints to scale
15	<ul style="list-style-type: none">• Regulatory changes needed?
15	<ul style="list-style-type: none">• Best financial support?
15	<ul style="list-style-type: none">• How to reach harder areas?
<u>Nigeria Electrification Project</u>	
10	<ul style="list-style-type: none">• Overview
15	<ul style="list-style-type: none">• Feedback
<u>Wrap up</u>	

Nigerian Electrification Project: SHS Component

SHS Clinic, 7 December, 2017

Leigh Vial, Consultant, World Bank

Aim

- Help millions of Nigerian households and micro enterprises (MSMEs) access Solar Home Systems (SHS) from the private market
- By enabling capable solar provider to reach more consumers faster
- 5 year project
 - 1.5 million SHS (6+ Wp)
 - 1 million single solar lanterns (< 6 Wp)

\$50-80 million: 3 components

Investment	USD m	USD m
1. Financing	75	
a. Output Based Fund		<i>60</i>
b. Market Scale-up Challenge Fund		<i>15</i>
2. Technical Assistance	5	
Total	80	

Financing via 2 Funds

	Output Based Fund	Scale-Up Challenge Fund
Mechanism	Fixed amount of grant paid after sale of each system. Average grant amount likely to begin at 15-20% and reduce over time.	Lump sum grants awarded against business plans and paid as plan progresses.
Company Requirements	Can deliver quality solutions and after sales support	Capable of growing rapidly to deliver massive scale
System requirements	Minimum size: 6Wp, 3 lights Emphasis on SHS (~ 50Wp) International certifications	No Minimum size Emphasis on SHS (~ 50Wp) International certifications
Access to Fund	Pre-qualify to play. Claim after sales made.	Competition.
Claim payment	Full evidence and identification of customer and system required.	Progress against agreed plan.

Output Grant – Pre-Qualification

Company	Regulatory compliance, financial standing.
Customer Tracking	Can identify, track and report customers and SHS locations.
Customer Services	Can provide effective pre- and after- sales service to those customers that are acquired, including easy and practical warranty services.
Operational scale	Ability to achieve the minimum required level of sales (? 200 units per month)
Skills and experience	Relevant experience for consumer facing SHS market scaling
Product	Lighting Global certified, or pass separate technical and capacity evaluation.
Environmental Management	Evidence that environmental and social risks are mitigated. (battery)
Background Checks	Company, associates, & individuals all of good repute.
Declarations	Strong business ethics and processes to ensure compliance..

Applicant must satisfy EVERY section

Output Grant – Amount per system

System Type	Min. Wp	Naira per system	Approx. USD
Level 1	<3	Nil	
Level 2	3	Nil	
Level 3	6	5,760	16
Level 4	15	9,000	25
Level 5	50	18,000	50
Level 6	200	43,200	120

Indicative amounts for the initial level of grants. Mostly around 15-20% of nominal retail cash price of the smallest system in each category. Grant amount per system would reduce during the programme.

Market Scale-up Challenge Fund - Selection

Business Plan	Strategy and business plan at international standard reflecting deep understanding of SHS market, business models, and Nigerian market issues.
Implementation Plan	Tight, detailed, measurable action plan to implement the strategy.
Output targets	Is the ambition big enough to matter? Is the ambition realistic against the strategy, skills, financial resources, and track record?
Financial Plan	5-year financial plan for the business as proposed, and by month for first year.
Funding Plan	Realistic prospects for mobilising the capital needed.
Co-funding	How much commercial funding? Lowest % of grant needed scores highest.
Track Record	Past relevant success?
Risk management	Robust understanding of risks to the plan, and means to mitigate them?

Only the few highest scoring applications would receive grant

Feedback?

End of Clinic

ANNEX

Audit - Escalating levels

Audit Level	Name	When to apply
Audit Level 1	Telephone sample	All grantees on their first claim. Any time the grant amount per unit is being changed, then apply to all grantees in the final claim period before the rate change.
Audit Level 2	Field sample	Apply if during a Level 1 audit, more than 10% of the customer telephone numbers called cannot be contacted.
Audit Level 3	Grantee process / systems audit	Apply if a Level 2 audit fails.
Audit Level 4	Full customer audit	If there is evidence of, or concern about, a significant lack of integrity in the claims data of a grantee.

Minimum system size criteria

SE4ALL		Tier 1		Tier 2	Tier 3
Product Tiers		Level 3	Level 4	Level 5	Level 6
Minimum Capacity	Power (Min Wp)	6	15	50	200
	and Daily Capacity (Min Wh)	24	60	200	1000
	or Services	Min 3 lamps, possible 2,000 lumen hours per day, phone charging	min 3 lamps, phone charging, air circulation possible	Electrical, lighting, air circulation, television, and phone charging are possible	
Minimum Duration	Hours per day (min)	4	4	4	8
	Hours per evening (min)	2	2	2	3