



**RURAL ELECTRIFICATION AGENCY**

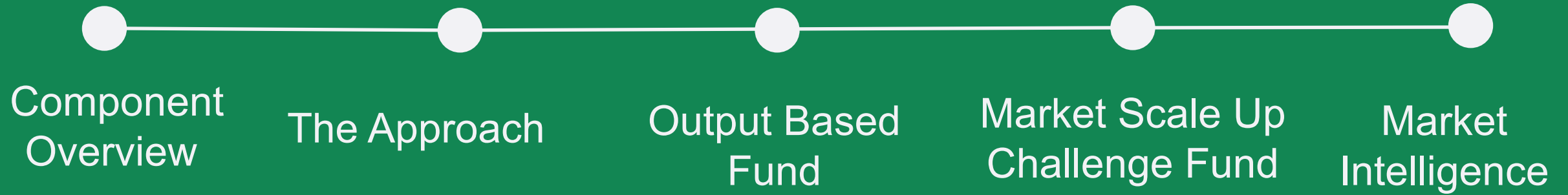
ENERGY ≡ EMPOWERMENT ≡ EFFICIENCY

**Nigerian Electrification Project- Stand-alone  
Solar Home System (SHS) Component)**

**15 April 2019**

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# Presentation Agenda



# NEP OVERVIEW

**Objective:** Increase access to electricity services for households, public educational institutions, and micro, small and medium enterprises throughout Nigeria

**US\$350 million** facility with 4 components



## **Component 1: Solar Hybrid Mini Grids for Rural Economic Development**

Provide subsidies and performance-based grants for mini-grid developers to build solar hybrid mini-grids in rural areas.



## **Component 2: Standalone Solar Systems for Homes, and Enterprises**

Provide market-based incentives to standalone solar system providers to install solar home systems (SHS)



## **Component 3: The Energizing Education Programme (EEP)**

Support the construction and operation of solar hybrid mini grids for federal universities and adjoining teaching hospitals under Phase II of the Programme.



## **Component 4: Technical Assistance**

Support project implementation, broad-based capacity building, and help develop a framework for scaling up rural electrification.

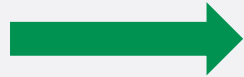
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# Component Overview

## Current Uses



## Displacers



## Introduction

- Millions of Nigerians do not have access to grid electricity, instead rely heavily on polluting lighting sources such as kerosene lanterns, candles, better-pass-my-neighbor generators.
- Solar Home Systems (SHS) are stand-alone photovoltaic systems that offer a safer, cost-effective mode of supplying power for lighting and appliances.
  - Can be used to meet a household's energy demand to fulfill basic electric needs



# Objective

Component aims to enable millions of underserved Nigerian households and micro enterprises (MSMEs) access better energy services at lower average cost, by supporting the private sector-led market development for stand-alone solar systems.

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# The Approach

# Grant Design Principles



## Adequate

The grant amounts available must be large enough to entice capable solar companies and their investors to bother taking part at all; to accelerate their expansion in the market; to risk investing more money in the market.

## Flexible

Capable solar companies must be allowed maximum flexibility to design and run their business in the way that is most effective and viable for them.

## Transparent

The processes for selecting grantees and for approving and paying grant amounts must be entirely transparent: in both practice and perception.

## Organic Market Growth

Avoid giveaways or subsidised end user prices to encourage natural market growth. Private companies cannot compete and so do not invest in developing the market.



# Funding Amounts

The \$75million SHS Component will be accomplished via two sub-components:



## Output Based Fund (\$60M)

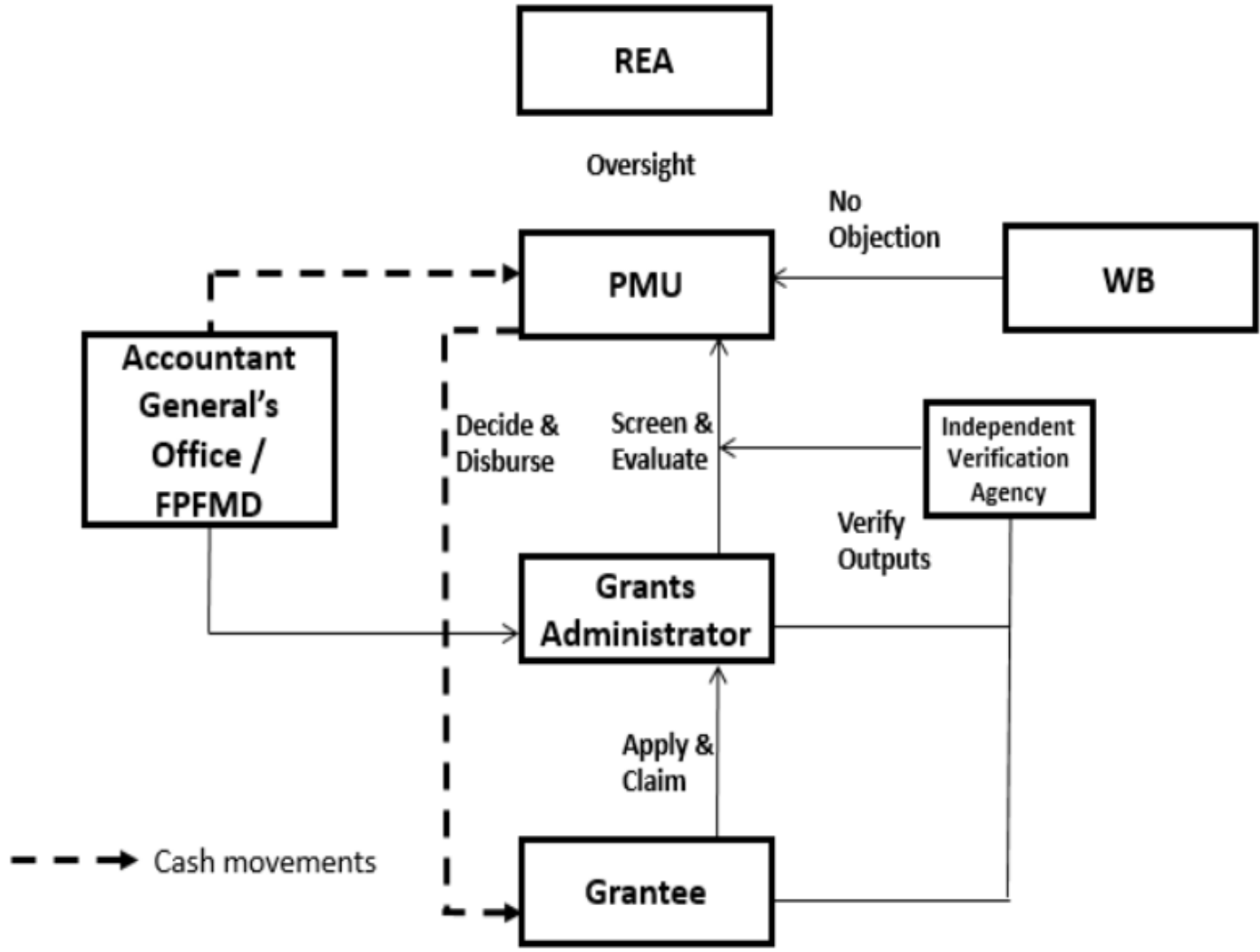
providing fixed incentive payment per system installed



## Market Scale Up Challenge Fund (\$15M)

providing lump sum grants against strongest business plans and other investor co-funding

# Implementation Arrangements



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# Output Based Fund

# OBF Overview

## Mechanism

Average grant at 20% of system cost and reduced over time. Fixed amount of grant paid after the installation of each system is verified

## System Requirements

Minimum SHS size: 6Wp (quality verified)

## Access to Fund

Must pre-qualify both company and product to claim grant as often as once a month. Claims are submitted online then installations of systems are verified by the IVA.

# Application Structure

## Company

Skills, experience of key people, governance structures, Confirm regulatory compliance. Financial standing.

## Customer Tracking

Evidence of the ability to meet the requirement to identify, track and report customers and SHS.

## Customer Service

Evidence of ability to effectively provide pre- and after-sales service to those customers that are acquired, including easy and practical warranty service.



## Operational scale

Evidence of ability to achieve the minimum required level of sales (>150 systems/month)

## Product

Products must pass the NEP quality verification process or the Lighting Global standard.

## Environmental Management

Evidence that environmental and social risks are mitigated.

# Quality Verification Framework

<b>System size range</b>	<b>Applicable steps</b>
6-15Wp plug & play	Lighting Global specification sheet and verification letter required
15-350Wp	<p>Lighting Global specification sheet and verification letter required for plug &amp; play systems in this range.</p> <p>For systems in this capacity range that are sold on a component-basis or are otherwise not “plug-and-play”, the quality verification framework applies.</p>
Larger than 350Wp	Must pass quality verification framework for component based systems

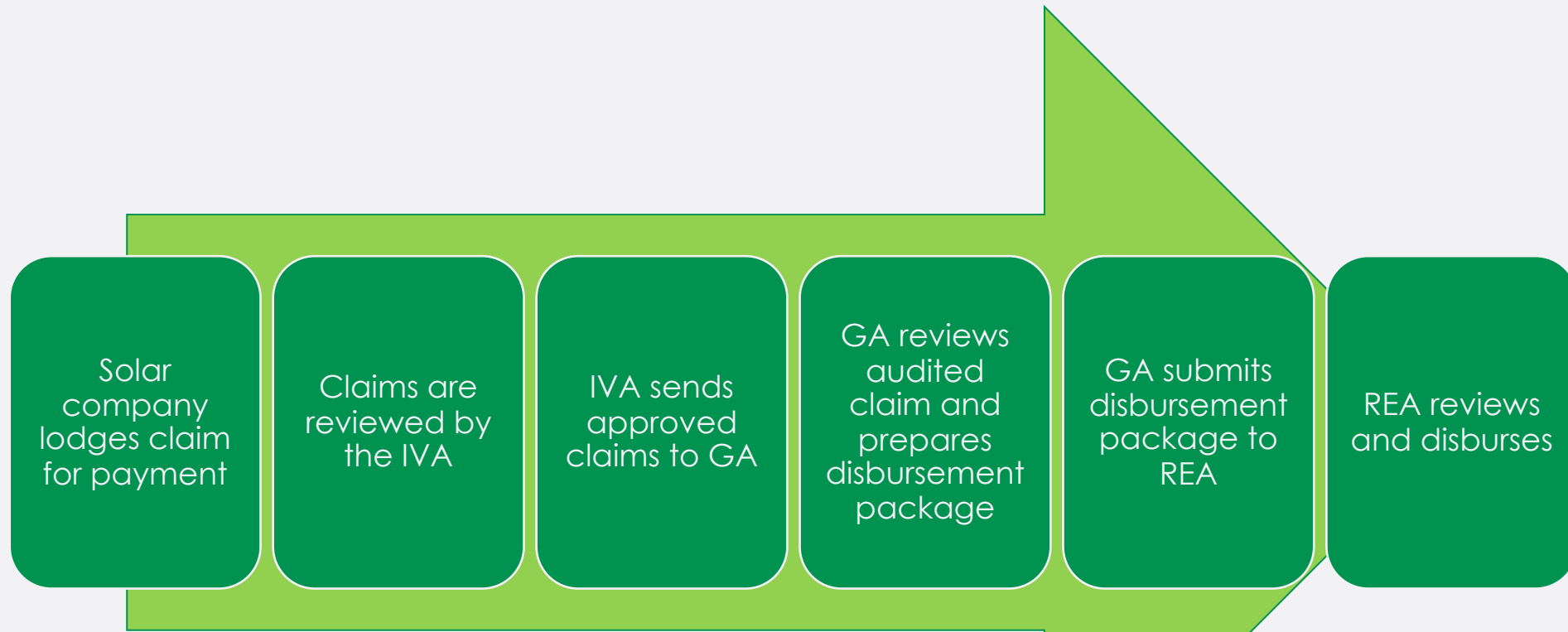
SE4ALL`		Tier 1		Tier 2	Tier 3	Tier 4	Tier 5
Product Tiers		Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Nominal Capacity (minimum)	Wp	6	15	50	200	800	2000
Daily Capacity	Wh	24	60	200	1000	3400	8200
Minimum Service		Min 3 lamps, possible 2,000 lumen hours per day, phone charging	Min 3 lamps, phone charging, air circulation possible	Electrical, lighting, air circulation, television, and phone charging are possible			
Availability (day)	hrs	4	4	4	8	16	23
Availability (evening)	hrs	2	2	2	3	4	4
Nominal Retail Price	USD	80	125	250	800	3,200	7,000
Grant	%	20%	20%	20%	15%	10%	7%
Grant Amount	USD	16	25	50	120	320	490

## OBF Grant Unit Rate

SHS is categorised into several Tiers based on capacity and service. Within each Tier of SHS a single unit rate of Output Based Grant will be paid against all systems.

# Output Based Grant Payments

Once pre-qualified, the payment process for the OBF is as follows :



\*Only systems sold after the grant agreement is signed will be considered



# Application Process



Output Based Fund application becomes live on the REA website April 15<sup>th</sup>, 2019 and will remain open thereafter for applying on a rolling basis.



The first batch of decisions will not be communicated before end- June 2019 regardless of the application date.



Thereafter, it will take approximately 4 weeks from the time of application to receive the decision on your application

# Market Scale Up Challenge Fund

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# Overview

## Mechanism

Lump sum grants paid in quarterly tranches awarded against strongest and ambitious business plans capable of delivering at scale.

Grant amount depends on business needs and capability/performance of firm but no more than 20-30% of total funding plan (financial leverage requirement).

## Pre-qualification

In order to be considered for an invitation to apply for the MSCF, your OBF application must first be successful

## Claim Payment

Meeting agreed upon milestones and defined KPIs. Evaluated quarterly to unlock the next payment tranche

# Application Structure

## Business Plan ●

Strategy and business plan at international standard reflecting deep understanding of SHS market, business models and Nigerian market issues

## Implementation Plan ●

Concise, detailed, measurable action plan to implement strategy

## Output targets ●

Ambitious but realistic plan including strategy, skills, financial resources and track record



## Financial Plan ●

4-year financial plan for the business as proposed, and by disaggregation by month for the first year

## Funding Plan ●

Complementary capital mobilized (equity or debt) or realistic prospects for mobilizing the capital needed

## Track Record ●

Substantial customer base and proof of successfully delivering quality products and services.

# Verification and Monitoring

Recipients of the Market Scale-Up challenge grant shall submit the following at the end of each quarter to unlock tranche-based payments:

## Milestone Report

Provides actual performance versus forecast for a number of pre-determined milestones and indicators agreed during the application stage and monitored by the Grants Administrator.

## Grant Expenditure Report

Describes the actual expenditure of grant funds by expense item amount and period. Grantees are to submit Grant Expenditure reports until they have completely exhausted the disbursed grant.



## Supporting Documents

Grantees submit evidentiary documents to support the milestone and the grant expenditure reports. These can include customer details, purchase, purchase orders for stock, receipts for expenses etc.

## Action Plan

Describes actual progress against the time bound action plan monitored by the Grants Administrator

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# Market Intelligence

# Data available to enable Market growth



REA data collection of sites to be analyzed for SHS viability



World Bank- Multi Tier Framework

Assessed 7 Northern states to segment customers according to energy demand and willingness to pay. Plan to expand to rest of country



NOMAP

Shell foundation funded program -- identified 300 economic clusters viable for SHS solutions. It is available on REA website.

「thank you」