



RURAL ELECTRIFICATION AGENCY

ENERGY \equiv EMPOWERMENT \equiv EFFICIENCY

NIGERIA ELECTRIFICATION PROJECT

MINI GRID PERFORMANCE- BASED GRANT

April 2019

PRESENTATION AGENDA



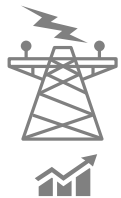
01

NEP Overview

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

- Minimum subsidy tender
- Performance-based grant on rolling-basis

Component 2: Standalone Solar Systems for Homes, Enterprises

- Output Based Grants for SHS installed and verified
- Market scale up challenge fund for rapid market expansion

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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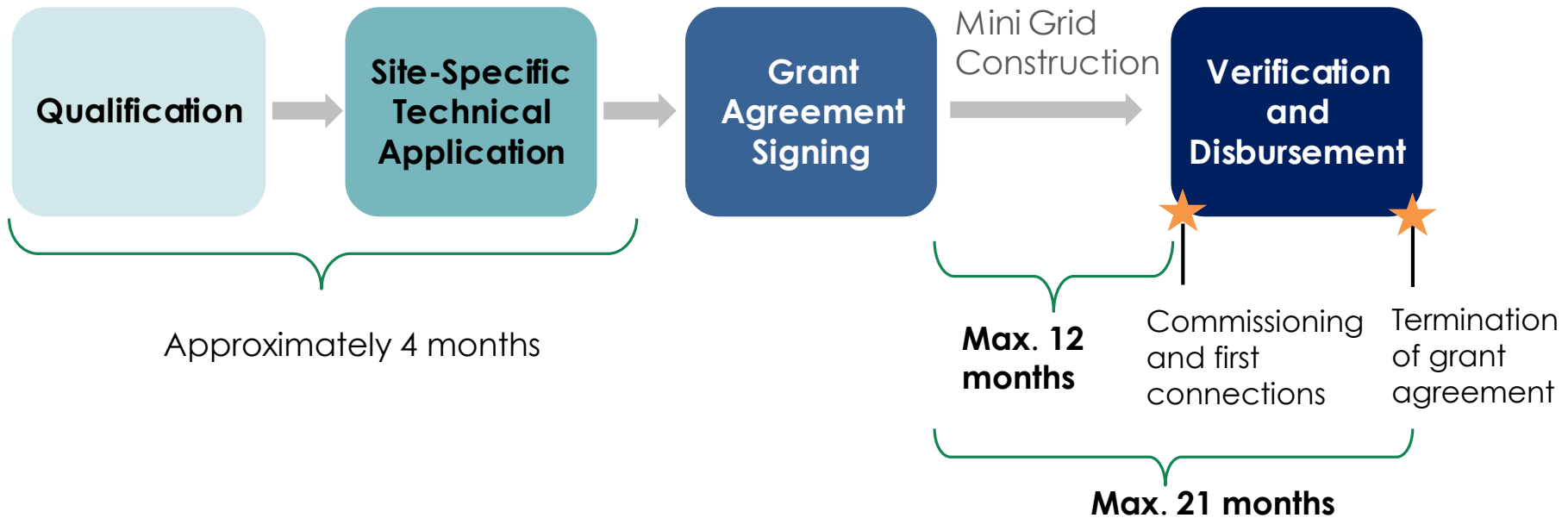
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PBG Design and Process

PROGRAMME DESIGN

- A Performance-Based Grant will be available for eligible projects on a rolling basis.
- Grant will be set at **USD350 per new connection**
- Eligible projects:
 - Solar hybrid mini grids
 - Mini grids in unserved areas
- Grant disbursement once connection is made, on a first-come first-served basis

APPLICATION AND APPROVAL PROCESS



- **Qualification** into the Program is now open
- Applicants should get login credentials on REA's website, in order to get access to the Odyssey platform, at:
<http://rea.gov.ng/rea-nep-performance-based-grant-program-registration/>
- Site-Specific Technical Applications stage will open in **June**
- Requests for clarifications should be made in writing to: nep@rea.gov.ng

E&S REQUIREMENTS

Admission into the Program:

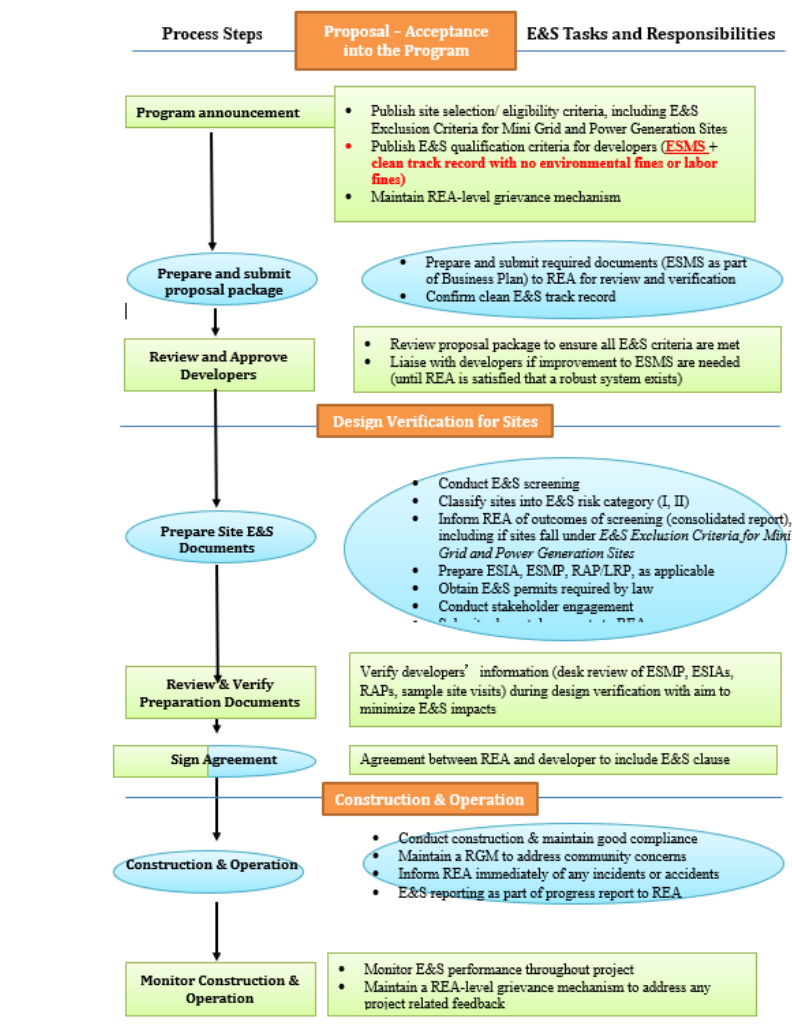
- Developer submits ESMS along with its business plan as part of its application for acceptance into the program
- REA reviews ESMS and ensures that all E&S criteria are met

Design Verification of Sites

- Along with site-specific technical applications, developer conducts E&S screening, prepares ESMP or ESIA, as applicable, and obtains required E&S permits
- REA reviews developer's information and enters into Grant Agreement with successful applicants

Construction & Operation

- Developer maintains E&S compliance and conducts E&S reporting while REA monitors for continued compliance



03

Qualification Stage

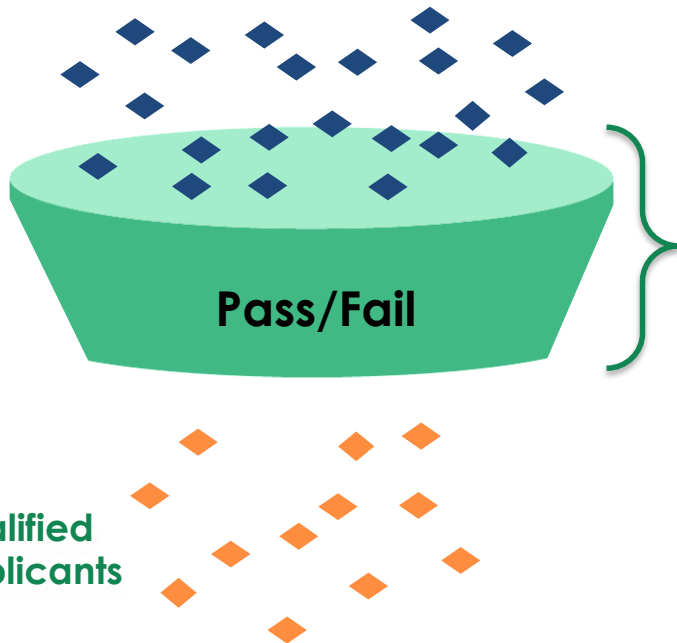
Qualification Requirements

Qualification Criteria Categories

1. **Eligibility:** World Bank eligibility and absence of conflicts of interest
2. **E&S compliance:** requirement to show compliance with World Bank and REA safeguards
3. **Technical capacity:** relating to the experience of the Applicant in developing and operating mini grids
4. **Financial capacity:** relating to the Applicant's capacity to secure financing (equity and debt)
5. **Business plan:** Applicants will have to submit a business plan that complies in form and substance with the template.



Qualification on Pass/Fail Basis



Pass/fail Criteria

Technical

- ✓ **Developed \geq 1 mini grid** of more than 10kW since 2014
- ✓ **Operated \geq 1 mini grid** of more than 10kW since 2014

Financial

- ✓ Total assets exceed total liabilities
- ✓ Ability to secure equity
- ✓ Ability to secure debt

Other

- ✓ Eligibility
- ✓ E&S compliance
- ✓ Business plan

Application on Odyssey Platform

NEP PERFORMANCE-BASED GRANTS APPLICATION

Tip: You may want to work on these questions offline and paste them into the form when complete. You can download a Word version of this application form in the Documents tab and work on it offline if you like.

Business Plan File Uploads

Contact Details	Executive Summary	Mission & Vision	Target Market	Opportunity	Execution	Company and Management	Corporate Financial Plan
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Market Segmentation

What market segment(s) are you addressing? *

Target Market Strategy

For each market segment, please describe:

- Customer needs
- Market trends
- Growth opportunities for the market segment
- Key customers

Future Markets

Please describe:

- What markets you plan to expand to?
- Your pipeline of projects.

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Site-Specific Technical Application Stage

Site-Specific Technical Application - Requirements

Information Required

- ✓ Site location and targeted number of connections in 21 months
- ✓ Generation Design
- ✓ Distribution Design
- ✓ Evidence of compliance with minimum technical requirements
- ✓ Evidence of regulatory compliance
- ✓ Proof of compliance with E&S and other program requirements



Site-Specific Technical Application – Site Specifications

Project Overview


Site

Project Files

Site Details

Map

Satellite



Map data ©2019 Google Imagery ©2019, CNES / Airbus, DigitalGlobe | 100 m | Terms of Use | Report a map error

Project Name

Sample Project

Executive Summary

B I U

This is a sample project

P

24 / 2000 Characters

Project Type

Minigrid

Country

Nigeria

State/Province

Federal Capital Territory

Program

NEP Performance-Based Grant Program

City

Abuja

Tariff Currency

Nigerian Naira

Exchange Rate

[View Rates](#)

360

Commercial Operation Date (COD)

03/25/2019

Status

Site Surveyed

Latitude

9.074

Longitude

7.41

Save

Cancel

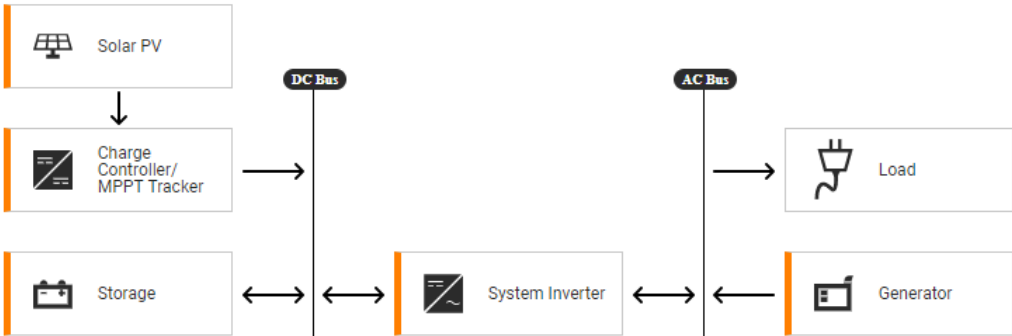
System Design

Sample Generation System

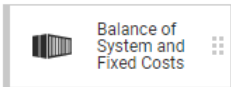
AC-Coupled System **DC-Coupled System**

DC-Coupled System Components

Drag and Drop components into your custom generation design.



Other Components



Distribution Design

Have lots of data? Use our Excel templates to quickly upload your data or contact support@odysseyenergysolutions.com for help. [View Templates](#)

[Upload Excel](#) [Download Template](#)

Distribution Network [What should I add here?](#) \$195/connection \$17,750

Type	Details	Quantity	Unit Cost	Unit	Total Cost
<input type="checkbox"/> Distribution Design	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="checkbox"/> Cabling	Cabling & Poles: 50 kVA	1500	\$10.00	meter	\$15000.00
<input type="checkbox"/> Cabling	Cabling & Poles: 100 kVA	100	\$15.00	meter	\$1500.00
<input type="checkbox"/> Cabling	Cabling & Poles: 150 kVA	50	\$25.00	meter	\$1250.00

[Delete](#) [Add](#)

Site-Specific Technical Application - Requirements

Evidence of Regulatory and Program Compliance at Site-Specific Technical Application

- ✓ Confirmation that the Applicant has applied for **NERC registration or permit**
- ✓ Proof of adequate **insurance** of project assets
- ✓ Proof of E&S compliance:
 - Completed Environmental and Social **site screening checklist**
 - **For category I sites:** Environmental and Social Impact Assessment (ESIA), as well as RAPs and Livelihood Restoration Plans (LRPs), if applicable
 - **For category II sites:** Proof of payment from Ministry of Environment as evidence that the Applicant has submitted its Environmental and Social Management Plan to the Ministry of Environment for approval

Applicants are allowed to submit one ESMP per state

Evidence to provide before signing Grant Agreement

- ✓ NERC registration or permit
- ✓ For category II sites: certificate of approval of ESMP by Ministry of Environment

Site-Specific Technical Application –Technical Requirements

Service Standards

- ✓ Power quality
- ✓ Power reliability
- ✓ Power availability

Minimum Technical Requirements

- ✓ PV modules
- ✓ PV mounting
- ✓ Battery/Energy storage devices
- ✓ Electronics and Balance of the system
- ✓ Diesel generator
- ✓ Metering and distribution. **Prepaid meters and distribution grid compliant with distribution code**

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05

Grant Agreement, Verification and Disbursement

Grant Agreement

Characteristics of the Grant Agreement

- ✓ Standardized and non-negotiable
- ✓ Grant period: **21 months**
- ✓ Grant will terminate after if **12 months** the Grantee has not commissioned the mini grid or has not connected any customers
- ✓ Grant agreement will contain clauses on enforcement of program requirements (service standards, minimum technical specifications, and E&S requirements), and on reporting requirements

Enforcement of Program Requirements

Enforcement of service, technical, and E&S requirements

- ✓ At commissioning:
 - REA will conduct commissioning test
 - NEMSA verification
- ✓ REA will conduct spot checks for E&S requirements
- ✓ Any issue arising on service quality will be addressed through the Grievance Redress Mechanism
- ✓ Grantees that fail to comply with remedial action will:
 - See the contract terminated
 - Be barred from the NEP

Reporting Requirements

- ✓ E&S reporting: progress on ESMS implementation
- ✓ Reporting for Monitoring and Evaluation purposes

Verification and Disbursement

Connection Submission and Verification

- ✓ Once a connection is made, Grantee must submit metering data for the first three months of consumption
- ✓ Connections to be submitted no more than once per month
- ✓ Connections verified by Independent Verification Agent

Disbursement

- ✓ Disbursement upon verification of connections



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