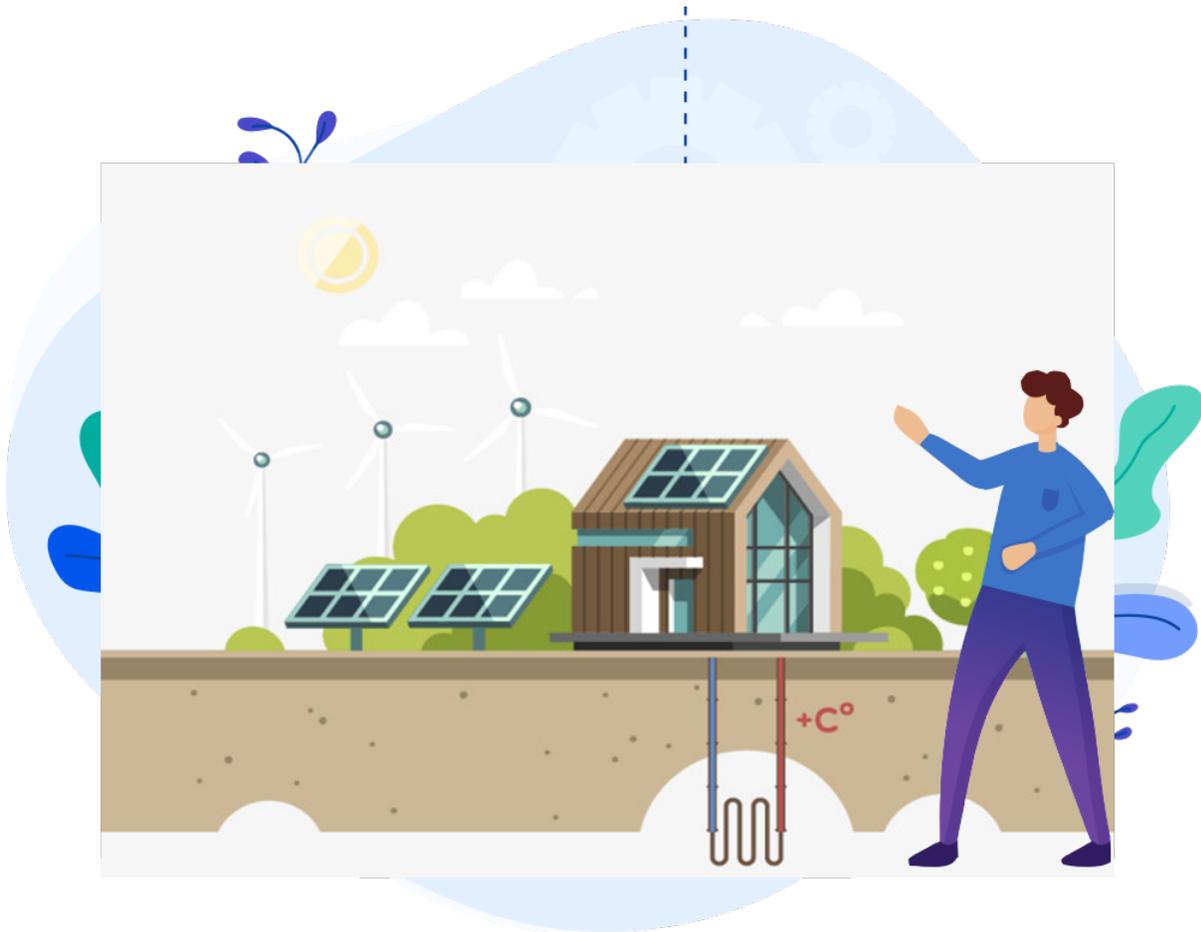


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# GUIDE FOR NEP MINI GRID APPLICATIONS



JANUARY, 2020

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## PREFACE

The Nigerian Electricity Regulatory Commission (“NERC”) in the continued mandate to ensure electrification throughout the Federation and in the exercise of powers to make regulations conferred by sections 96(1) and 62 of the Electric Power Sector Reform Act 2004, passed the Mini-Grid Regulation in 2016 (“Regulations”). These Regulations provide the framework for the development and operation of Mini Grids in Nigeria including the registration and permitting requirements for mini grids.

This document serves as a guide to developers of mini grids under the Nigerian Electrification Project (“NEP”) being implemented by the Rural Electrification Agency (“REA”), that are applying to register mini grid(s) or secure mini grid permit(s) from NERC. This document applies to the electronic filing process for securing permits or registrations.

[Version No. 4]

## 1. INTRODUCTION

### 1.1. ABOUT THE NIGERIA ELECTRIFICATION PROJECT

The Federal Government of Nigeria (FGN) launched the Nigeria Electrification Project (NEP) to accelerate the deployment of renewable energy and off-grid solutions particularly mini grids, to deliver electricity to unserved and underserved communities in Nigeria. Although an FGN initiative, the NEP is private sector driven and through the distinct solutions on offer, it seeks to kick start the market and encourage the proliferation of mini grids in the country. The NEP is being implemented by the Rural Electrification Agency (REA) in collaboration with the World Bank and the African Development Bank (AfDB) and aims to be the largest off-grid electrification project in Nigeria.

The NEP is made up of four (4) main components; Solar Hybrid Mini-Grids, Stand-alone Solar Home systems, Energizing Education Programme and Technical Assistance. The Solar Hybrid Mini-Grid Component seeks to support the development of privately financed and operated mini-grids in economically viable rural areas. This includes the electrification of households, local enterprises, and public institutions. This component also comprises of two (2) subcomponents namely a Minimum Subsidy Tender (MST) program, to electrify communities selected by REA that have high economic growth potential by awarding subsidies to mini grid developers who will be selected through a competitive tender; and a Performance-Based Grant (PBG) program, for the development of unsolicited mini grid projects through the award of grants to qualified developers on a rolling basis.

### 1.2. Scope of the Mini Grid Regulations

The Regulations define a Mini Grid as an electricity supply system with its own generation capacity for the supply of electricity to more than one customer and which can operate in isolation from (Isolated Mini Grid) or be connected to a distribution licensee's network (Interconnected Mini Grid).<sup>1</sup> The Regulations however apply only to Mini Grids with generation capacity of up to 1MW.<sup>2</sup>

### 1.3. Types of Authorisations<sup>3</sup>

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<sup>1</sup> Regulation 3(1)

<sup>2</sup> Regulation 4

<sup>3</sup> Regulations 7, 8, 9.

Pursuant to the Regulations, a developer of a Mini Grid (“Developer”) may adopt either of the following options:

- (a) apply to NERC to **register a Mini Grid**, provided it is an Isolated Mini Grid and the distribution capacity of such mini grid does not exceed 100kW; or
- (b) apply to NERC for a **permit** where:
  - a. it is an Isolated Mini Grid and the distribution capacity of such mini grid exceeds 100kW; or
  - b. it is an isolated Mini Grid and the distribution capacity of such mini grid does not exceed 100kW but the Developer nevertheless wishes to obtain a permit for its Mini Grid; or
  - c. it is an Interconnected Mini Grid.

In addition to the foregoing, the Developer of an Interconnected Mini Grid must seek NERC’s approval to the Tripartite Contract to be entered into by the developer, the community and the relevant distribution licensee (“DisCo”). Such approval shall be considered together with the Developer’s permit application.

#### 1.4. **NEP Application Portal**

Notwithstanding Annex 5 of the Regulations, developers seeking to register their mini grid or apply for a permit are required to apply electronically through the portal dedicated for NEP approved projects (“NEP Application Portal”) accessible at [www.nep.nerc.gov.ng](http://www.nep.nerc.gov.ng).

#### 1.5. **Fast-Track Team**

A Fast-Track Team has been constituted and is currently stationed at NERC to expedite the application review process for mini grid registrations and permit applications for NEP applicants.

#### 1.6. **Enquiries**

All enquiries relating to the application process and the NEP Application Portal should be addressed to the Helpdesk by sending an email to [nep@nerc.gov.ng](mailto:nep@nerc.gov.ng).



## 2. PRE-REGISTRATION STEPS

### 2.1. Identify Eligible Area and Usage Terms of Exclusivity

2.1.1. The exclusivity period is used to investigate the feasibility of implementing a mini grid at a location and ensures that no other operator is conducting any feasibility within that area during the investigation period. The exclusivity agreement is executed by the Community and the Mini Grid Operator; please refer to the following provisions of Regulation 21 of the Regulations and [Annex 5 – Application Proceedings](#) for guidance on identifying eligible areas and settling an exclusivity period with respect to the identified area:

- Section 1 (Key Considerations)
- Section 2 (Unserved Areas – Isolated Mini Grids)
- Section 3 (Underserved Areas – Interconnected Mini Grids)

2.1.2. It is important to note that while the entry into an Exclusivity Agreement is optional, Developers are advised to secure Exclusivity Agreements for their projects as these agreements confer on Developers the exclusive right, barring all other interested developers, to develop a Mini Grid from the project feasibility stage until commissioning at a certain site.

2.1.3. Exclusivity Agreements can be secured with communities

- In the case of an **Isolated Mini Grid**, by the developer and the authorized representative of the community to be connected; or
- In the case of an **Interconnected Mini Grid**, by the developer, the distribution licensee (“DisCo”) and the authorized representative of the community.

2.1.4. NERC has developed template Exclusivity Agreements that parties may adopt for their own use.

- For Isolated Mini Grids, see [Annex 1A – Agreement Form for an Exclusive Project Development Period at a Site for an Isolated Mini Grid](#).
- For Interconnected Mini Grids, see [Annex 1B – Agreement Form for an Exclusive Project Development Period at a Site for an Interconnected Mini Grid](#).

- 2.1.5. Exclusivity Agreements that provide for an exclusivity period beyond 12 months in the first instance must be approved by NERC. An application for approval must be made using Form A at Schedule 1 of Annex 1A to the Mini Grid Regulations - Initial Exclusivity Period Request Form.
- 2.1.6. An exclusivity period may be extended for an additional 12 months subject to the approval of NERC. An application for approval must be made using Form B at Schedule 1 of Annex 1A – Supplementary Exclusivity Period Request Form.

## 2.2. Develop Systems Design and Project Framework

- 2.2.1. For mini grids that will be operated under a permit, developers must ensure that the system design complies with the Technical Codes and Standards.<sup>4</sup>
- 2.2.2. Note that registered mini grids are not bound by the Technical Codes and Standards. However, developers of such mini grids may apply the minimum technical requirements as set out in Annex 7 – Technical Requirements for Registered Mini Grid Operators.<sup>5</sup>

## 2.3. Determine Retail Tariffs and Usage Charges

### Retail Tariffs

- 2.3.1. **Permit holders** are required to base their tariffs on the MYTO Methodology subject to a limitation of:
- Technical losses to a maximum of 10%;
  - Non-technical losses to a maximum of 10%<sup>6</sup>
- 2.3.2. Tariffs are to be determined using the MYTO Calculation Tool referenced in Annex 15 of the Regulations and approved by NERC.
- 2.3.3. Registered Mini Grid Operators may decide to determine their retail tariffs either by using the MYTO Calculation Tool or by an agreement between the Registered Mini Grid

<sup>4</sup> Regulation 14(1). “Technical Codes” means Grid Code, Distribution Code; Metering Code, Health & Safety Code, NESIS Regulation and other codes approved by NERC for the technical regulation of the electricity supply industry in Nigeria

<sup>5</sup> Regulation 14(2).

<sup>6</sup> Regulation 20(3).

Operator and the community (being a minimum of electricity customers representing 60% of the electricity output of that community), subject to NERC's right to intervene and adjust the tariff if the tariff exceeds the threshold specified in Regulation 20(4)(b) of the Mini Grid Regulations. This agreement must be submitted to NERC for its records.<sup>7</sup>

### Usage Charges

- 2.3.4. A usage charge is the charge to be paid by an Interconnected Mini Grid Operator to the DisCo for use of the DisCo's facilities. The usage charge is to be agreed by the parties and approved by NERC as part of the permit application process. If the parties are unable to agree on a usage charge, then the methodology prescribed in Annex 8 – Recommendations for Calculation of Usage Charges by the Distribution Licensee in Interconnected Mini-Grids may be utilised.<sup>8</sup>
- 2.3.5. Developers with a portfolio of several mini grid projects may decide to base their tariff calculation on their entire portfolio or a portion thereof.

## 2.4. Execute Relevant Substantive Agreements

<b>Isolated Mini Grid</b>	<p><b>Commercial Agreement</b> between the developer and the community.</p> <p>Please note that NERC has developed a template Tripartite Agreement that parties may adopt for their own use.</p> <p>See <u>Annex 12 – Contract Template between Isolated Mini Grid Operator and the Community</u>.</p>
<b>Interconnected Mini Grid</b>	<p><b>Tripartite Agreement</b> to be executed by the developer, the DisCo and the Connected Community.</p> <p>Tripartite Agreement should at a minimum contain requirements specified in Regulation 9(1)(c).</p> <p>Please note that NERC has developed a template Tripartite Agreement that parties may adopt for their own use.</p>

<sup>7</sup> Regulation 20(4).

<sup>8</sup> Regulation 20(1), 20(2).

	See <u>Annex 11 – Tripartite Contract between Interconnected Mini Grid Operator, Distribution Licensee and Connected Community.</u>
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## 2.5. **Obtaining Other Necessary approvals**

- 2.5.1. Developers must secure title/rights to the project site and all relevant permits including a Building Permit issued by the relevant authority where the Mini Grid will be located and written consent of DisCo of the intended area on where the proposed operational area of the mini grid will be within the five year expansion plan of the DisCo.

## 2.6. **Register on the NEP Mini Grid Application Portal**

- 2.6.1. Following the execution of a grant agreement between NEP/REA and the Developer, the Developer must apply for to be pre-registered on the NEP Application Portal.
- 2.6.2. Upon pre-registration, each Developer shall receive an activation email for user registration and be required to activate the account to become operational.
- 2.6.3. Enquiries relating to user registration should be addressed to the Helpdesk.

### 3. MINI GRID REGISTRATION PROCESS

#### 3.1. Eligibility for Registration

- 3.1.1. Mini Grid must be an Isolated Mini Grid in an unserved area with less than 1MW generating capacity and no more than 100kW distribution capacity.

#### 3.2. Completing and Submitting an Application

- 3.2.1. Log into the NEP Application Portal and select the option to apply for Mini Grid Registration from the dashboard.
- 3.2.2. Complete the application form by providing all the required information as indicated below. Note that the application form is in three sections.

Section	Information Required
<b>Section 1: Particulars of Applicant</b>	<ul style="list-style-type: none"> <li>• Provide name and address of applicant (company name)</li> <li>• Provide details of applicant's contact person</li> </ul>
<b>Section 2: Nature of Application</b>	<ul style="list-style-type: none"> <li>• Indicate whether application is for a fresh registration or renewal of an existing registration.</li> <li>• Indicate whether applicant holds other mini grid registrations or permits or other NERC permits or licences and provide details, if any.</li> <li>• Indicate whether applicant has ever had a refusal, suspension or cancellation of a permit or licence issued by NERC and provide details, if any.</li> </ul>
<b>Section 3: Description of Project</b>	<p><b>Site of Mini Grid</b></p> <ul style="list-style-type: none"> <li>• Select the State and Local Government Area where project site is situated</li> </ul> <p><b>Power Plant</b></p> <ul style="list-style-type: none"> <li>• Indicate the type(s) of power generation system (i.e., whether solar, wind, biomass, hydro, diesel, gas or any</li> </ul>

	<p>combination of the foregoing) and state the capacity of each type in kW.</p> <ul style="list-style-type: none"> <li>• State the storage capacity in kWh</li> <li>• State the size of the inverters used in kW</li> <li>• State the geographical coordinates (in decimals) of the location of the power plant</li> <li>• Indicate whether the power plant is new or old</li> <li>• If the power plant is old, state the number of years that the power plant has been in operation</li> </ul> <p><b>Customer Classes</b></p> <ul style="list-style-type: none"> <li>• State the number of customers applicant will serve in each class (i.e., residential, industrial, commercial and special). If applicant has no customer in a particular class, 'zero' should be stated</li> </ul> <p><b>Distribution Facilities</b></p> <ul style="list-style-type: none"> <li>• Indicate the type of distribution lines (whether three-phase MV, single phase LV or three-phase LV) and state the length of each type in metres</li> <li>• Indicate whether the lines will be overhead and/or underground</li> <li>• Indicate the type of poles to be used (whether cement, wood or other) and state the number of each type</li> <li>• State the number of distribution transformers and rating in KVA</li> </ul> <p><b>Tariff structure</b></p> <ul style="list-style-type: none"> <li>• Indicate the type of tariff structure (i.e., whether it will be on a per kWh basis or on a per day basis or both)</li> <li>• State the minimum and maximum tariffs</li> </ul> <p><b>Source of Funding</b></p> <ul style="list-style-type: none"> <li>• State whether the source of share capital (i.e. equity contribution) is foreign and/or local and specify the amount(s)</li> <li>• State the amount and source of any loan capital</li> <li>• State the amount and source of any other source of capital (e.g. grant)</li> </ul>
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- 3.2.3. Upon completion of the form, download and print the completed application form for signature and notarization by a notary public or Commissioner for Oaths. **Note that the**

Health and Safety Declaration (Annex 6) will be annexed to the application form and must also be completed and signed.

- 3.2.4. Upload scanned copies of all documents specified in the document checklist below.

#### Document Checklist for Mini Grid Registration

- (a) Completed Application Form (Annex 2; signed and notarized)
- (b) Health and Safety Declaration (Annex 6; signed)
- (c) Commercial Agreement (Annex 12; Contract template)

- 3.2.5. On submission of the application, applicant will receive an auto-generated email confirming submission of the application. Applicants should contact the helpdesk if this confirmation email is not received.

### 3.3. Application Review

- 3.3.1. A determination shall determine whether the application is complete and whether the applicant's project is eligible for registration. If the application is complete and the project is eligible for registration, the applicant shall receive a **Notice of Registration**. If the application is incomplete or the project is ineligible for registration, NERC shall issue a **Notice of Incomplete Application/Ineligibility for Registration**

***Note:** A project shall be ineligible for registration if it is not a mini grid as defined in the Regulations or its distribution capacity exceeds 100kW.*

## 4. MINI GRID PERMIT APPLICATION PROCESS

### 4.1. Eligibility for Mini Grid Permit

- 4.1.1. The proposed Mini Grid may be an Isolated Mini Grid in an unserved area or an Interconnected Mini Grid in an underserved area.
- 4.1.2. Note developers of Isolated Mini Grids of up to 100kW distribution capacity may opt to apply for a Mini Grid Permit.

### 4.2. Completing and Submitting an Application

- 4.2.1. Log into the NEP Application Portal and select “Apply for Mini Grid Permit” from the dashboard
- 4.2.2. Complete the application form by providing all the required information as indicated below. Note that the application form is in three sections.

Section	Information Required
<b>Section 1: Particulars of Applicant</b>	<ul style="list-style-type: none"> <li>• Provide name and address of applicant (company name)</li> <li>• Provide details of applicant’s contact person</li> </ul>
<b>Section 2: Nature of Application</b>	<ul style="list-style-type: none"> <li>• Indicate whether mini grid is (a) isolated mini grid of up to 100kW distribution capacity; (b) isolated mini grid above 100kW distribution capacity; or (c) interconnected mini grid.</li> <li>• Indicate whether application is for a fresh permit or renewal of an existing permit.</li> <li>• Indicate whether applicant holds other mini grid registrations or permits or other NERC permits or licences and provide details, if any.</li> <li>• Indicate whether applicant has ever had a refusal, suspension or cancellation of a permit or licence issued by NERC and provide details, if any.</li> </ul>

<p><b>Section 3: Description of Project</b></p>	<p><b>Site of Mini Grid</b></p> <ul style="list-style-type: none"> <li>• Select the State and Local Government Area where project site is situated</li> </ul> <p><b>Power Plant</b></p> <ul style="list-style-type: none"> <li>• Indicate the type(s) of power generation system (i.e., whether solar, wind, biomass, hydro, diesel, gas or any combination of the foregoing) and state the capacity of each type in kW.</li> <li>• State the storage capacity in kWh</li> <li>• State the size of the inverters used in kW</li> <li>• State the geographical coordinates (in decimals) of the location of the power plant</li> <li>• Indicate whether the power plant is new or old</li> <li>• If the power plant is old, state the number of years that the power plant has been in operation</li> </ul> <p><b>Customer Classes</b></p> <ul style="list-style-type: none"> <li>• State the number of customers applicant will serve in each class (i.e., residential, industrial, commercial and special). If applicant has no customer in a particular class, 'zero' should be stated</li> </ul> <p><b>Distribution Facilities</b></p> <ul style="list-style-type: none"> <li>• Indicate the type of distribution lines (whether three-phase MV, single phase LV or three-phase LV) and state the length of each type in metres</li> <li>• Indicate whether the lines will be overhead and/or underground</li> <li>• Indicate the type of poles to be used (whether cement, wood or other) and state the number of each type</li> <li>• State the number of distribution transformers and rating in KVA</li> </ul> <p><b>Tariff structure</b></p> <ul style="list-style-type: none"> <li>• Indicate the type of tariff structure (i.e., whether it will be on a <i>per kWh basis</i> or on a <i>per day basis</i> or both)</li> <li>• State the minimum and maximum tariffs</li> </ul> <p><b>Source of Funding</b></p> <ul style="list-style-type: none"> <li>• State whether the source of share capital (i.e. equity contribution) is foreign and/or local and specifying the amount(s)</li> </ul>
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	<ul style="list-style-type: none"> <li>• State the amount and source of any loan capital</li> <li>• State the amount and source of any other source of capital (e.g. grant)</li> </ul>
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## 4.2.3. Input tariff data

4.2.4. Upon completion of form, download and print the completed application form for signature and notarization by a notary public or Commissioner for Oaths. **Note that** the Health and Safety Declaration (Annex 6) will be annexed to the application form and must also be completed and signed.

4.2.5. Pay prescribed application processing fee (see Schedule of Fees) to NERC via the Remita platform ([www.remita.net](http://www.remita.net) ) and generate a Remita Retrieval Reference Number (“RRR”). Payment details are as follows:

Name of MDA: Nigerian Electricity Regulatory Commission (NERC)

Name of Service/Purpose: Permit Processing Fees

4.2.6. Upload scanned copies of all documents specified in the document checklist below.

<b>Document Checklist for Mini Grid Permit</b>		
	Isolated Mini Grid	Interconnected Mini Grid
(a) Completed Application Form (signed and notarized) <b>and</b> Health and Safety Declaration (signed)	✓	✓
(b) Certificate of Incorporation	✓	✓
(c) Memorandum and Articles of Association	✓	✓
(d) Forms CAC 2 (Particulars of Shareholding) and CAC 7 (Particulars of Directors)	✓	✓
(e) Signed Exclusivity Agreement (where one exists)	Exclusivity Agreement between Developer and Community	Exclusivity Agreement among Developer, DisCo and Community

(f) Signed Commercial/Tripartite Agreement	Commercial Agreement between Developer and Community	Tripartite Agreement among Developer, DisCo and Community (with technical documents listed below attached)
(g) Technical Documents	<ul style="list-style-type: none"> <li>i. Power station layout drawings</li> <li>ii. Map showing position of power plant and distribution network marked using indicators to distinguish single-phase and three-phase as well as medium voltage networks.</li> </ul>	<ul style="list-style-type: none"> <li>i. Map of Interconnected Network</li> <li>v. List of Deficiencies in Distribution Grid</li> <li>v. Distribution Network Infrastructure Installed by the Mini Grid Operator;</li> <li>vi. Map of Plot for Power Generation Assets)</li> </ul>
(h) Proof of title to/possession of proposed project site	✓	✓
(i) Building Permit	✓	✓
(j) Letter of Award from NEP/REA	✓	✓
(k) Evidence of loan capital (applicable if applicant indicates loan capital as a source of finance)	✓	✓
(l) Evidence of payment of application processing fee (Remita receipt)	✓	✓
(m) Tariff calculation based on MYTO Methodology	✓	✓

4.2.7. On submission of the application, applicant will receive an auto-generated email confirming submission of the application. Applicants should contact the helpdesk if this confirmation email is not received.

### 4.3. Verification of Complete Application

- 4.3.1. NERC shall verify whether the application documents are complete;
- If the application is complete, the applicant shall receive an **Acknowledgment of Receipt** by email confirming the receipt of complete application documents and noting the date of receipt.
  - If the application is incomplete, the applicant shall be notified by email outlining the outstanding information/documents and directing applicant to upload outstanding document on the portal within a given timeframe. Note that NERC shall not commence the review of an application that is not complete.

### 4.4. Application Review

- 4.4.1. Upon review of submitted applications, NERC shall notify an applicant of its decision to either approve or refuse the application. (Refer to the conditions of grant of permit for Isolated Mini Grids and Interconnected Mini Grids outlined in Regulations 7 and 9 respectively)

#### **Approval**

- 4.4.2. If the application is approved, NERC shall issue a **Notice of Approval** to applicant by email. The Notice of Approval will specify the conditions, if any, to be satisfied before the grant of the Permit.
- 4.4.3. The Notice of Approval will require Applicant to pay the prescribed authorization fee prior to the issuance of a permit certificate and the Permit fee is payable through Remita.
- 4.4.4. On payment of the prescribed authorization fee and fulfilment of the conditions specified in the Notice of Approval, NERC shall issue a Mini Grid Permit to an applicant.

#### **Refusal**

- 4.4.5. If Prior to refusing an application, NERC shall issue a **Notice of Intention to Refuse** to applicant by email notifying applicant of its intention to refuse the application and stating reasons. Applicant shall have the opportunity to make adequate representations to NERC within thirty (30) days of its receipt of the notice.
- 4.4.6. If NERC is satisfied with applicant's representations, it shall issue a **Notice of Approval** to the applicant by email and paragraphs 4.4.2 – 4.4.4 shall apply.
- 4.4.7. If NERC is not satisfied with applicant's representations, or applicant fails to submit representations within the prescribed time, NERC shall issue a **Notice of Refusal** to applicant stating reasons for the refusal.

An applicant whose application has been refused may submit a new application.

#### 4.5. **Duration of a Permit**

- 4.5.1. A Mini Grid Permit shall be valid for a period of 5 years.

## 5. SCHEDULE OF FEES

S/N	Type of Mini Grid	Application Processing Fee	Authorization Fee	Renewal Fee
<b>Registration</b>				
1.	Mini Grid $\leq$ 100kW	NIL	NIL	N/A
<b>Permit</b>				
2	Mini Grid $\leq$ 100kW	N50,000	N100,000	
3.	Mini Grid >100 kW	N150,000	N250,000	

**\*All fees are non-refundable**

**\*\*50% of the applicable fees shall be payable for amendment and 100% payable for renewal of Permit.**