



**NIGERIAN ELECTRICITY REGULATORY COMMISSION  
REGULATIONS FOR MINI-GRIDS 2016**

DRAFT

## PREFACE

This Mini-Grid Regulation is specifically designed to accelerate electrification in areas without any existing distribution grid (“Unserved areas”) and areas with an existing but poorly electrified or non-functional distribution grid (“Underserved areas”), especially but not limited to rural areas. The Regulation shall promote the engagement of the private sector, communities, Non-Governmental Organisations and other stakeholders in achieving nationwide electrification, and it seeks to minimize major risks associated with Mini-Grid investments such as:

- (1) Sudden tariff changes, as tariffs would have been agreed in advance by the relevant parties; and
- (2) Stranded Mini-Grid Operator investments due to the connection of the main grid to Mini-Grid in circumstances where the main grid has been extended to cover the Mini-Grid area. In such cases, a fair compensation mechanism would be applied for Mini-Grid Operators that choose to exit.

The Regulation provides for permit and tariff approval procedures which will ease the administrative burden on the Mini-Grid Operator and ensure the process of obtaining the permit in a timely manner with minimal requirements from NERC. The Distributed Power of the Mini-Grid determines the regulatory procedure to be followed. For Distributed Power of up to 100kW, a permit is optional for the Mini-Grid Operator; while for Distributed Power of over 100kW and installed Generation Capacity of up to 1MW a permit, will be required. Beyond that limit, a full licence is required which is outside of the scope this regulation and is taken care of by other already existing regulations.

To encourage Mini-Grid development, cost reflective retail tariffs will be utilised. The tariffs are expected to be higher than the current Electricity Distribution Company (DisCo) retail tariffs. However, they will be lower than any electricity supply of the same quality generated from conventional sources in these areas.

This regulation is suitable for any business model or technology that Mini-Grid Operators may wish to implement.

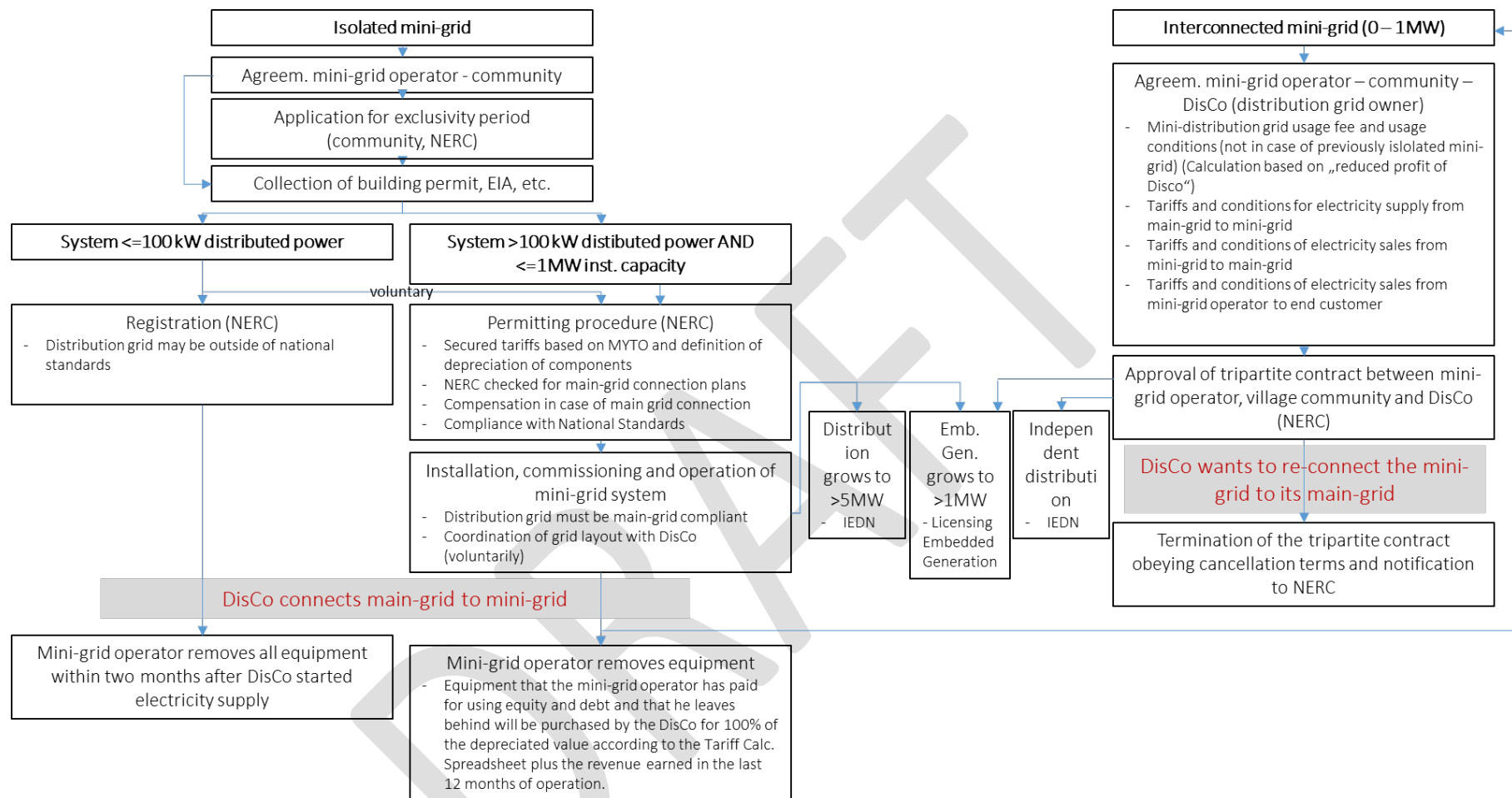
The DisCos stand to benefit from Mini-Grid Operations and some of these benefits include:

- (1) Development of the DisCos licensing areas which are not being exploited at no-cost to the DisCos pending when they are ready to extend their operations to such areas. At such time, demand would have increased to attractive levels for profitable operation, and customers will be used to paying for electricity and complying with the safety requirements.

- (2) Opportunity of turning loss-making assets which have high maintenance and collection costs; and low yielding revenues in Underserved areas into profit making or at least non-loss-making assets by hiring out parts of their distribution network for a usage charge to the Mini-Grid Operators for its operations.
- (3) Mini-Grids would be a bridge technology that can be used by DisCos to accelerate their electrification activities. The distribution infrastructure installed by the Mini-Grid Operator in systems requiring a permit will be compliant with national standards for easy connection to the main grid.

The following flow-chart (see next page) describes the core functions of this regulation.

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**REGULATION NO: XXXX**

**NIGERIAN ELECTRICITY REGULATORY COMMISSION**

In exercise of the powers to make regulations conferred by Sections 96(1) and 70(8) of the Electric Power Sector Reform Act 2005 (Act No.6 of 2005) and all other powers enabling it, the Nigerian Electricity Regulatory Commission makes the following Regulations for Mini-Grids.

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## CHAPTER I GENERAL

### 1. Short Title

These regulations may be cited as the **Nigerian Electricity Regulatory Commission Mini-Grid Regulations, 2016**.

### 2. Commencement

(1) These Regulations shall come into force on the date on which they are approved by a resolution of the Commission.

(2) These Regulations shall be signed by the Chairman of the Commission who shall also cause the seal of the Commission to be affixed thereon.

### 3. Interpretation

(1) In these regulations, unless the context otherwise requires:

**“Act”** means the Electric Power Sector Reform Act, 2005;

**“Business Rules”** mean the Nigerian Electricity Regulatory Commission (Business Rules of the Commission) Regulations, 2006 as amended;

**“Commission”** means the Nigerian Electricity Regulatory Commission (NERC);

**“Community”** means a group of people within the same geographic location organized under a local leadership structure or a legally recognised corporate entity and in both cases capable of entering into contracts and being capable of suing and being sued;

**“Connected Community”** means Community connected to the distribution network of a Distribution Licencee;

**“Connection”** means the electrical equipment and materials that allow the transfer of electricity between the distribution system and an electrical system that is not part of that network and includes any transformers, switchgear, switch or relay at the point of interconnection that are necessary for the transfer, but does not include the lines and switchgear at the connection that form part of the transmission or distribution system;

**“Connection Point”** means an entry or an exit point on a distribution network;



**“Distributed Power”** means the active electric power fed into a Distribution Network on average within any 15 minutes time interval of its operation period;

**“Distribution Code”** means the code and guidelines for the Nigerian electricity distribution system, as approved from time to time by the Commission;

**“Distribution Licencee” or “DisCo”** means a holder of a Distribution Licence who operates a Distribution Network that is connected to the transmission system operated by the system operation Licencee;

**“Distribution Network”** means any connection of cables, service lines and overhead lines, electrical apparatus/equipment and having design voltage of 33kV and below used to transport electric power on a distribution system;

**“Feeder”** means a low voltage or medium voltage line of a distribution network being capable of supplying or absorbing at least 30 kVA of electricity in compliance with the Distribution Code;

**“Generation”** means the production of electricity to be fed into a distribution network or supplied to the consumer directly;

**“Generation Capacity”** means the guaranteed active power that a generation plant can supply to a load or network at any point in time under the given environmental constraints (temperature, humidity, etc.) and a power factor of 0.8 (inductive) for at least one hour under the assumption that the plant is well maintained and fully functional;

**“Independent Electricity Distribution Network” or “IEDN”** means a distribution network not directly connected to a transmission system operated by the system operator. *For the specific purpose of these Regulations, the term IEDN shall exclude Mini-Grids;*

**“Independent Electricity Distribution Network Operator” or “IEDNO”** means an IEDN operator Licenced by the Commission;

**“Interconnected Mini-Grid”** means a Mini-Grid which is connected to a Distribution Licencee’s network;

**“Isolated Mini-Grid”** means a Mini-Grid which is not connected to any Distribution Licencee’s network;

**“Licence”** means a Licence granted by the Commission under the Act;

**“Licencee”** means any Person who holds a Licence issued by the Commission;

**“Metering Code”** means the Nigerian Metering Code approved by the Commission for use in measuring the flow of energy within the transmission and distribution systems in the Nigerian Electricity Supply Industry;

**“Mini-Grid”** means any electricity supply system with its own power Generation Capacity, supplying electricity to more than one customer and which can operate in isolation from or be connected to a Distribution Licencee’s network. Within these Regulations, the term Mini-Grid is used for any Isolated or Interconnected Mini-Grid generating between 0kW and 1MW of Generation Capacity;

**“Mini-Grid Developer”** means any entity legally established under Nigerian law which has applied for Registration or a Permit by the Commission to operate an Isolated Mini-Grid or which is preparing a Tripartite Contract for an Interconnected Mini-Grid;

**“Mini-Grid Operator”** means any entity who operates an Isolated Mini-Grid and is registered or holds a Permit or who operates an Interconnected Mini-Grid under a Tripartite Contract;

**“Mini-Grid Permit Holder”** means a Mini-Grid Operator which holds a Permit issued by the Commission under this regulation;

**“NESIS Regulation”** means the Nigerian Electricity Supply and Installation Standards Regulation 2015;

**“Mini-Grid Permit”** means a permit granted by the Commission to an Isolated Mini-Grid Operator, who applied, for the construction, operation and/or maintenance and where applicable ownership of a Mini-Grid;

**“Person”** includes an individual, a company, partnership or any association of individuals, whether incorporated or not;

**“Registered Mini-Grid Operator”** means a Mini-Grid operator operating one or more system(s) of less than 100 kW of Distributed Power per site who has gone through a Mini-Grid Registration procedure with the Commission successfully.

**“Registration”** means the submission to the Commission of a registration form as shown in Annex 2 by a Mini-Grid Operator for one or more system(s) of up to 100 kW of Distributed Power per site;

**“Technical Codes”** means Grid Code, Distribution Code; Metering Code, Health & Safety Code, NESIS Regulation and other codes approved by the Commission for the technical regulation of the electricity supply industry in Nigeria;

**“Tripartite Contract”** means the contract between an Interconnected Mini-Grid Operator, Distribution Licencee and Connected Community which shall be as agreed between the parties or as provided in the form of the contract template in Annex 11 and approved by the Commission;

**“Underserved Area”** means an area within a Distribution Licencee’s Network with an existing but poorly supplied or non-functional distribution system;

**“Unserved Area”** means an area within a Distribution Licencee’s Network without an existing distribution system otherwise called off-grid.

(2) Unless otherwise specified, in these regulations:

- (a) Words importing any one gender includes the other gender and the singular includes the plural and vice versa;
- (b) Words or expressions used in these Regulations but not defined shall have the same meanings respectively assigned to them in the Act;
- (c) Any reference to a statute or statutory provision includes a reference to that provision as amended, re-enacted or replaced and any regulations or orders made under such provisions from time to time; and
- (d) If the date on which an event is scheduled to occur by these Regulations is a day which is not a business day, then the event shall be deemed to occur on the next business day.

#### **4. Application of the Regulations**

- (1) These regulations shall apply to all Mini-Grids with Generation Capacity of up to 1MW, the owners, operators and users of the Mini-Grids as well as all other private or public stakeholders such as the Distribution Licencees or any federal or state institution or agency as the case may be interacting with Mini-Grid owners, operators and users in Nigeria.

**CHAPTER II**  
**CHARACTERISTICS OF MINI-GRIDS**

**5. Structure/Arrangement**

(1) A Mini-Grid may be any one of the following:

- a. Isolated Mini-Grid
- b. Interconnected Mini-Grid

(2) A Mini-Grid is required to have a generator in its network. The generator may be operated by the Mini-Grid Operator or a third party.

**6. Geographical Delineation of Distribution Systems**

(1) The Commission may on request of a Mini-Grid Developer grant a Permit to construct, own, operate and/or maintain an Isolated Mini-Grid in a designated Unserved Area.

(2) The Commission may on request of a Mini-Grid Developer approve the Tripartite Contract, as agreed with the respective Connected Community and Distribution Licencee, to construct, operate and/or maintain an Interconnected Mini-Grid in an Underserved Area within a geographic location.

(3) A Mini-Grid Developer applying for a Mini-Grid Permit shall submit to the Commission an accurate description of the proposed distribution and generation system, including geographical depiction.

(4) The geographical depiction shall be in the prescribed form as shown in Annex 3.

(5) In case of different Feeders being connected to the same generator, the Commission may define each Feeder a separate Mini-Grid or all feeders together as one Mini-Grid as long as the aggregate power generated and distributed through these feeders does not exceed 1 MW.

**CHAPTER III**  
**REGISTRATION; GRANT OF PERMIT AND MANDATORY CONDITIONS**

## **7. Isolated Mini-Grids larger than 100 kW of Distributed Power and up to 1 MW of Generation Capacity**

- (1) For an Isolated Mini-Grid, the Commission may grant a Permit mentioned in S.6(1) above upon the fulfilment of the following conditions:
  - (a) an application has been received by the Commission for the intended area;
  - (b) confirmation of the Distribution Licencee's expansion plans approved by the Commission through the Commission to ensure that the Mini-Grid activities will not interfere with the expansion plans into the designated Unserved Area;
  - (c) written consent of the Distribution Licencee of the intended area where the operational period of the Mini-Grid Developer will be within the five year expansion plan of the Distribution Licencee;
  - (d) the intended geographic location is an Unserved Area which has not been assigned to an IEDNO or any other Mini-Grid Developer;
  - (e) submission of the executed agreement between the Community and Mini-Grid Developer for approval by the Commission;
  - (f) the Isolated Mini-Grid Developer and Community are in agreement for the installation of the Mini-Grid;
  - (g) all necessary land for construction and installation of all assets has been acquired and all other necessary permits have been granted to the Mini-Grid Developer;
  - (h) the tariff is calculated based on the MYTO methodology and approved by the Commission; and
  - (i) execution of the Health and Safety confirmation form in Annex 6 and submit to the Commission.

## **8. Isolated Mini-Grids up to 100 kW of Distributed Power**

- (1) The Mini-Grid Developer of an Isolated Mini-Grid with a Distributed Power of up to 100kW may select one of the following options:

- (a) An application for a Permit mentioned in S. 6(1) above following all procedures as described in S. 7(1) above with all rights and obligations of a Mini-Grid Permit Holder as described under this regulation;
- (b) A registration using the form in Annex 2.

## **9. Interconnected Mini-Grids**

(1) For an Interconnected Mini-Grid, the Connected Community, the Mini-Grid Developer and the Distribution Licencee have to sign a Tripartite Contract which becomes binding for all parties upon approval by the Commission. The Commission may approve the Tripartite Contract mentioned in S. 6(2) above upon the fulfilment of the following conditions:

- (a) an application has been received by the Commission for the intended area;
- (b) the proposed retail tariff is calculated using the MYTO methodology, agreed by the Mini-Grid Developer, the Distribution Licencee and Connected Community and approved by the Commission;
- (c) the Mini-Grid Developer, the Distribution Licencee and the Connected Community have executed a Tripartite Contract using the template in Annex 11 and which shall contain at the minimum the information below:
  - (i) the usage right for the Distribution Licencee's network infrastructure which shall become an Interconnected Mini-Grid;
  - (ii) the construction and ownership right for additional infrastructure (if applicable);
  - (iii) the tariff for electricity generated by the Mini-Grid and fed into the Distribution Licencee's network (if applicable);
  - (iv) the availability of stable nominal voltage and effective system protection at the Connection Point of the generator with the Licencee's Distribution Network (if applicable);
  - (v) the tariff for the purchase of electricity from the Distribution Licencee's network (as applicable); and
  - (vi) the agreement of the Connected Community to purchase electricity from the Mini-Grid for the tariffs defined.

- (2) Once an area has been identified either by a Connected Community or Mini-Grid Developer, and a notification is made to the Commission for the purpose of considering the development of an Interconnected Mini-Grid, a Mini-Grid Developer can submit a proposal to the Distribution Licencee.

#### **10. Application procedure for a Permit**

- (1) A Permit shall not be granted unless the mandatory conditions provided in S. 7 above are fulfilled.
- (2) The Commission shall issue a Permit pursuant to S. 7 or S. 8 above or approve a Tripartite Contract pursuant to S. 9 above to an applicant within a maximum period of 30 days from the date of receipt of complete documentation. Application proceedings related to S.7, S.8 and S.9 are described in Annex 5. Where Annex 5 deviates from the Regulation, the Regulation shall prevail.
- (3) Pending when a response is received from the Commission, the Mini-Grid Developer of a Mini-Grid of up to 100kW of Distributed Power who has applied for a Permit can commence operations as a Registered Mini-Grid Operator.
- (4) Notwithstanding S.10(3) above, the Registered Mini-Grid Operator who wants to operate as a Mini-Grid Permit Holder shall:
  - a. be required to use the MYTO calculation methodology in determining its tariff;
  - b. have the right to compensation as provided in S.19 (2) (b) only where a Permit has been granted by the Commission.

#### **11. Obligations of the Mini-Grid Permit Holder**

- (1) The Mini-Grid Permit Holder shall construct, operate and/or maintain its Distribution Network in accordance with the relevant Technical Codes and Standards.
- (2) The Mini-Grid Permit Holder shall comply with the Act, terms and conditions of the Permit, the Tripartite Contract, the Agreement with the Community, Customer Contract, the rules and regulations, as well as the decisions, orders and directions of the Commission as applicable.

- (3) The Mini-Grid Permit Holder shall comply with all other regulations unless expressly excluded in this regulation, including the regulations specified by the Commission regarding utilisation of the distribution assets for a business other than distribution of electricity.
- (4) The Mini-Grid Permit Holder shall grant the Commission and its duly authorized representatives access to any information that is relevant to fulfil the tasks assigned to the Commission under the Act and this regulation.

## **12. Accounts of the Mini-Grid Permit Holder**

- (1) The Mini-Grid Permit Holder shall –
  - (a) maintain separate accounting records for the Mini-Grid business, including the business of utilizing the assets of a Distribution Licencee's Network, in such form and containing such particulars as may be specified by the Commission and in accordance with the Companies and Allied Matters Act, 2004 Cap. 20 LFN, or as may be amended from time to time;
  - (b) prepare from such records, accounting statements for each financial year comprising a profit and loss account and a balance sheet; and
  - (c) ensure that the accounting statements prepared in accordance with the foregoing sub-sections are duly certified by an auditor in respect of each financial year, stating whether in the opinion of the auditor, the statement has been properly prepared and giving a true and fair view of the revenue, costs, assets, liabilities and reserves reasonably attributable to the business to which the statement relates.

## **13. Inspection of accounts for the purpose of adjustment of tariffs and ascertaining depreciated value**

- (1) Any Person authorised by the Commission shall be entitled to inspect and verify the accounts of a Mini-Grid Permit Holder at any reasonable time and the Mini-Grid Operator shall be under obligation to render all necessary assistance, including provision of required documents to the Person so authorized to inspect the accounts.
- (2) The Mini-Grid Permit Holder shall provide reports in the form prescribed in Annex 4 to the Commission at least once every two years in accordance with Annex 6; and



- (3) Where the authorized person inspecting the accounts of the Mini-Grid Permit Holder proves that the actual costs incurred or the actual revenue earned by the Mini-Grid Permit Holder deviate from the costs and revenues stated during tariff definition with the Commission at the point of application for the Permit or approval of Tripartite Contract as applicable:
  - (a) the input parameters for tariff calculation using the MYTO methodology shall be adjusted to the actual values; and
  - (b) the tariffs as well as the calculation of the depreciated value may be adjusted and approved by the Commission accordingly.
- (4) The new tariffs as adjusted in S. 13(2) above shall be applied within 30 days after approval by the Commission.
- (5) A Mini-Grid Permit Holder may request an inspection of accounts with the Commission in order to update its tariffs and depreciated value.
- (6) The Community may request an inspection of accounts of the Mini-Grid Permit Holder with the intention to trigger an adjustment of tariffs.
- (7) In case of the Mini-Grid Permit Holder asking for an inspection of accounts with the Commission, the Mini-Grid Permit Holder shall pay a flat fee of 200 NGN per customer connected to its Mini-Grid to the Commission.
- (8) In case of the Community asking for an inspection of accounts with the Commission, the Community shall pay a flat fee of 200 NGN per customer connected to the Mini-Grid operated under a Permit in their Community to the Commission.

#### **CHAPTER IV**

#### **MINI-GRID OPERATION UNDER A PERMIT**

#### **14. Installation and maintenance of the Mini-Grid operated under a Permit**

- (1) The Mini-Grid Permit Holder shall design, construct, commission, operate and/or maintain and de-commission its Distribution Network and related facilities in compliance with the Technical Codes and Standards, terms and conditions of its Permit or Tripartite Contract as applicable and in accordance with any other standards of design, construction, and maintenance as may be prescribed by the Commission from

time to time. Where there is any inconsistency between these Regulations and the Technical Codes and Standards, the provisions of the Technical Codes shall prevail.

- (2) The Registered Mini-Grid Operator is not bound by the Technical Codes and Standards for design, construction, commissioning, operation and maintenance of its distribution systems, but may apply the minimum technical requirements as set out in Annex 7.

## **15. Quality of Service**

- (1) The Mini-Grid Permit Holder shall supply electricity according to the contract signed with the Community or Connected Community as proposed in Annexes 11 and 12 respectively.
- (2) The Registered Mini-Grid Operator shall supply electricity in accordance with the agreement executed with the Community.

## **16. Safety**

- (1) All Mini-Grid Operators shall apply safety guidelines as described in Annex 6 for the design, construction, commissioning, operation and maintenance of their generation and distribution assets.

## **17. Environmental protection**

- (1) All Mini-Grid Operators shall comply with the existing environmental legislation.

## **18. General Provision for Connection to Customers**

- (1) The Mini-Grid Permit Holder shall enter into the standardized connection agreements as proposed in Annex 13 with every customer who accepts to connect to the Mini-Grid operated under a Permit.
- (2) The Metering Code shall be mandatory for all Registered Mini-Grids and Isolated Mini-Grids operated under a Permit and Interconnected Mini-Grids operated under a Tripartite Agreement. The Commission may on request of the Mini-Grid Operator grant a derogation where it deems fit.

- (3) The tariff and billing model of Mini-Grids operated under a Permit shall be described in the standardized contract between the Mini-Grid Operator and the customers in the Community as proposed in Annex 13.

**19. Interconnection of the Distribution Licencee's Network to an Isolated Mini-Grid operated under a Permit and Re-integration of Interconnected Mini-Grid into a Distribution Licencee's Network**

- (1) Each Mini-Grid Permit Holder shall operate in the geographical area specified in its Permit or Tripartite Contract as applicable.
- (2) Where a Distribution Licencee extends its network to an Isolated Mini-Grid operated under a Permit, two options are available to the Mini-Grid Permit Holder:
  - (a) Convert to an Interconnected Mini-Grid Operator; or
  - (b) Transfer all assets the Isolated Mini-Grid Operator does not want to remove from the Mini-Grid system to the Distribution Licencee in return for compensation. Where the Mini-Grid Permit Holder elects to take this transfer option, the compensation mechanics shall be as follows:
    - (i) where the Distribution Licencee extends its Distribution Network within the first 5 years of the commissioning of the Mini-Grid operated under a Permit (**Initial Period**), the Isolated Mini-Grid Operator shall receive a compensation from the Distribution Licensee before handover of assets equal to the remaining depreciated value of assets (including the construction and development cost) as defined during the tariff definition by the Commission plus the revenue the Mini-Grid Operator generated from the Mini-Grid, commencing 12 months prior to the date of connection of the Mini-Grid operated under a Permit to the Distribution Network and document the payment process in Annex 14 and submit the signed document to the Commission;
    - (ii) where the Distribution Licencee extends its Distribution Network after the Initial Period, the Mini-Grid Permit Holder shall receive a compensation from the Distribution Licensee before handover of assets equal to the remaining depreciated value of the assets as defined during the tariff definition by the Commission plus the revenue the Mini-Grid Operator generated from the Mini-Grid commencing 12 months prior to the date of connection of the Mini-

Grid to the Distribution Network and document the payment process in Annex 14 and submit the signed document to the Commission;

(iii) where the system setup has been changed since the latest tariff definition by the Commission, the Mini-Grid Permit Holder shall initiate an inspection of accounts according to S. 13(3) above in order to determine the depreciated value of assets. Pending the outcome of the inspection, the Mini-Grid Permit Holder shall receive immediate compensation based on the latest tariff definition by the Commission. Upon receipt of the outcome of the account inspection, the Mini-Grid Permit Holder shall be paid the difference between the compensation paid and the compensation amount determined following the inspection.

- (3) Pursuant to S. 19(2)(b)(ii) above, where the parties fail to agree to the terms of the compensation, the Commission shall act as an arbiter to determine the compensation to be paid.
- (4) Notwithstanding S. 19(2)(b)(iii), costs and depreciation times fixed with the tariff approval apply. Costs for assets not covered in the tariff approval procedure shall not be refunded to the Mini-Grid Operator.
- (5) The Mini-Grid Permit Holder is obliged to remove and recycle (if possible) or dispose the assets and equipment that are fully depreciated in an environmentally friendly manner in accordance with environmental legislation. The Mini-Grid Operator may follow the guidelines on environmental matters as set out in Annex 6.
- (6) Where a Distribution Licencee extends its Distribution Network to a Mini-Grid of a Registered Mini-Grid Operator, on request of the Distribution Licensee, the Registered Mini-Grid Operator has to de-commission and remove all its assets and equipment within 2 months after the Distribution Licencee has started supplying electricity to the area. The Registered Mini-Grid Operator shall not be entitled to any refund or compensation.
- (7) After the expiry of a Tripartite Contract of an Interconnected Mini-Grid, and where not renewed, a Distribution Licencee may re-integrate an Interconnected Mini-Grid into its network subject to:
  - (a) the written proof of endorsement by the Connected Community; and
  - (b) notification to the Commission.

- (8) The refund procedure described in S. 19(2)(b) would apply in this instance unless otherwise agreed in the Tripartite Contract.

**CHAPTER V**  
**COMMERCIAL ARRANGEMENT**

**20. Determination of Tariffs and Other Charges**

***Licencee Distribution Network Usage Charges***

- (1) The Interconnected Mini-Grid Operator shall pay the Distribution Licencee a usage charge which shall be agreed upon between the Interconnected Mini-Grid Operator and the Distribution Licencee and approved by the Commission.
- (2) Where the Interconnected Mini-Grid Operator and the Distribution Licencee are unable to agree on the usage charges, the methodology described in Annex 8 shall be applied as a guideline.

***Retail Tariffs***

- (3) For Mini-Grid Permit Holders, retail tariffs and other charges are determined using the MYTO methodology included in Annex 15 and approved by the Commission subject to a limitation of
  - (a) distribution losses to a maximum of 10%
  - (b) non-technical losses to a maximum of 10%
- (4) The Registered Mini-Grid Operator may decide to determine retail tariffs and other charges
  - (a) using the MYTO calculation tool in Annex 15; or
  - (b) by an agreement between the Mini-Grid Operator and the Community (being a minimum of electricity customers representing 60% of the electricity output of that same Community); subject to the Commission's right in S.13, to intervene and adjust the tariff that has been agreed with the Community where the rate of return of the Mini-Grid Operator exceeds a usual non-recourse commercial debt interest rate in local currency and with adequate tenure for these kind of projects + 6%.
  - (c) The executed agreements in S. 20(3) above shall be submitted to the Commission for its records.

**CHAPTER VI**  
**MISCELLANEOUS**

**21. Exclusivity Period and Site Reservation for Project Development Purposes**

- (1) The procedure for acquiring/renewing an exclusivity agreement for project development purposes by an Isolated Mini-Grid Developer shall work as follows:
  - (a) A Community may grant an exclusive right to develop an Isolated Mini-Grid project until commissioning at a certain site. The Community may grant to the Mini-Grid Developer an exclusivity period of up to 12 months as shown in Annex 1A.
  - (b) If required, the Isolated Mini-Grid Operator may request the Commission an extension beyond 12 months upon justification as shown in Annex 1A.
  - (c) The Distribution Licencee and the Community may grant an exclusive right to develop an Interconnected Mini-Grid project until commissioning at a certain site as shown in Annex 1B.
- (2) The Community and the Commission or the Distribution Licencee may ask the developer to provide any proof of its commitment (e.g. Letter of Intent (“LOI”) from investor, endorsement letter from the State Government) before signing the exclusivity agreement.
- (3) The Commission shall not grant a Permit or Licence or approve a Tripartite Contract as applicable to a Mini-Grid Developer for a certain site, where an exclusivity agreement has been executed in respect of that site.
- (4) The Commission shall not grant an extension of an Exclusivity Period beyond 12 months where the site is within the 5 year extension plan of a Distribution Licencee. The Mini-Grid Developer is recommended to consult the Commission or the Distribution Licencee before signing the initial exclusivity agreement with the community.
- (5) Notwithstanding the right granted in S. 21(1)(a), the Distribution Licencee reserves the right to integrate the Community to its distribution network.

## **22. Procedure for Securing Compliance with the Permit or Tripartite Contract as applicable**

- (1) Where the Commission, on the basis of material evidence in its possession is satisfied that the Mini-Grid Operator is contravening, or is likely to contravene, the terms and conditions of the Permit or Tripartite Contract as applicable, it shall serve an order to the Mini-Grid Operator to do, or not to do, such things as are specified in the order for the purpose of rectifying or avoiding any contravention or threatened contravention of any term or condition of the Permit or Tripartite Contract as applicable.
- (2) The order shall specify the period within which the Mini-Grid Operator shall rectify or avoid the contravention or threatened contravention of any term or condition of the Permit or Tripartite Contract as applicable.
- (3) Upon expiry of the period specified in the order, if no compliance is achieved, the Commission shall proceed to enforce the order through the enforcement mechanism established by it.

## **23. Proceedings before the Commission**

- (1) All proceedings before the Commission under these regulations shall be governed by the Business Rules of the Commission as may be amended from time to time.

## **24. Complaints Procedure**

- (1) Unless otherwise stated in this regulation, all customer complaints shall be resolved in accordance with the Complaints Procedure Guidelines in Annex 9.

## **25. Dispute Resolution**

- (1) Disputes between parties in connection with this regulation shall be resolved in line with the Dispute Resolution Mechanism in Annex 10.

## **26. Amendment or repeal**

- (1) The Commission may amend or repeal, in whole or in part, the provisions of these Regulations.



**SIGNED BY THE ORDER OF THE COMMISSION**

**ANNEX 1A**  
**AGREEMENT FORM FOR AN EXCLUSIVE PROJECT DEVELOPMENT PERIOD AT A SITE FOR AN**  
**ISOLATED MINI-GRID**

**N.B – This is a template form that can be amended to suit the specific circumstance and peculiarities of the parties**

This Agreement is dated [XXX]

**Between**

[XXXX], a company duly incorporated under the laws of the Federal Republic of Nigeria with registration number [RC Number] and having its registered office at [OFFICE ADDRESS] called the “**Mini-Grid Developer**”.

**And**

[XXXX] a legally authorised representative of [NAME OF COMMUNITY] in its capacity as [Village Head] called the “**Community Representative**”.

**OR**

[XXXX] a Company/Association duly incorporated/registered under the laws of the Federal Republic of Nigeria and having its registered office at [OFFICE ADDRESS] acting as the legally authorised representative of [NAME OF COMMUNITY/CHAIRMAN OF THE LOCAL GOVERNMENT AREA] called the “**Community.**”

(In this Agreement, the Mini-Grid Developer and Community Representative are referred to as “**Parties**” or “**Party**”).

**RECITAL/ BACKGROUND**

- A. The Mini-Grid Developer is in the business of developing and constructing Mini-Grids.
- B. The Mini-Grid Developer seeks to develop a Mini-Grid to supply electricity to the Community from electricity generated by the Mini-Grid.
- C. The Mini-Grid Developer has identified the Location as suitable for a Mini-Grid in accordance with the Mini-Grid Regulations and seeks to undertake feasibility studies preparatory to developing a Mini-Grid to supply electricity to the Community.

D. In view of the above, the Community Representative has agreed to grant the Mini-Grid Developer an exclusivity period to develop the Mini-Grid under the terms set out in this Agreement.

**NOW THEREFORE, the Parties agree as follows:**

## **1. DEFINITIONS AND INTERPRETATIONS**

1.1 In this Agreement each of the following words and expressions shall have the following meanings:

**“Confidential Information”** shall include but is not limited to technical know-how, information and data, plans, strategies, techniques, processes, operations, formulae, proprietary information and material belonging to any of the Parties in respect of the Mini-Grid Project.

**“Effective Date”** means the date of this Agreement.

**“Exclusivity Period”** means the Initial Exclusivity Period, Supplementary Exclusivity Period and any further extensions of the exclusive period granted pursuant to Clause 4.

**“Location”** Means the area within the distribution network where a Mini-Grid is proposed to be located.

**“NERC”** means the National Electricity Regulatory Commission.

**“Permit”** means a Permit granted by NERC to a Mini-Grid Operator for the construction, operation, maintenance and where applicable ownership of Mini-Grids.

**“Technical Codes”** shall have the same meaning in the Mini-Grid Regulations.

1.2 In this Agreement, except where the context otherwise requires:

1.2.1 any reference to “this Agreement” includes the Schedules and Annexures to it, each of which forms part of this Agreement for all purposes;

1.2.2 if a period of time is specified as **from** a given day, or from the day of an act or event, it shall be calculated exclusive of that day; and

1.2.3 if a period of time is specified as **to** a given day, or to the day of an act or event, it shall be calculated inclusive of that day.

## 2. COMMENCEMENT

This Agreement shall commence on the Effective Date.

## 3. MINI-GRID PROJECT

The Parties agree that the Mini-Grid Developer shall have the right to investigate, develop and commission a Mini-Grid in the Community ("**Mini-Grid Project**").

## 4. EXCLUSIVITY PERIOD

4.1 The Exclusivity Period shall start on the Effective Date and shall end [12 or 24 months] after ("**Initial Exclusivity Period**") unless extended pursuant to this Clause 4 in this Agreement.

4.2 Where the Initial Exclusivity Period is for 12 months, the Community Representative shall have the discretion to extend the Initial Exclusivity Period for up to an additional 12 months after the expiration of the Initial Exclusivity Period ("**Supplementary Exclusivity Period**"), provided that the Mini-Grid Developer has made significant progress to the satisfaction of the Community. ***[NOTE: the Parties can set out specific conditions precedent that needs to be satisfied by the Parties during the exclusivity period.]***

4.3 A Supplementary Exclusivity Period can only be granted by the Community Representative subject to NERC's approval.

4.4 An Initial Exclusivity Period that exceeds 12 months can only be granted with NERC's approval.

4.5 Pursuant to Clause 4.3, NERC's approval for the extensions shall be granted provided that:

4.5.1 the Parties are able to set out progress made and provide a justification to the satisfaction of the Community why an extension is required; and

4.5.2 any delays experienced are due to no fault of the Mini-Grid Developer.

4.6 Where the Initial Exclusivity Period exceeds 12 months, the Mini-Grid Developer and the Community shall in addition to this Agreement, execute Form A in Schedule 1 and thereafter submit to NERC for approval.

4.7 Where a Supplementary Exclusivity Period is required, the Mini-Grid Developer and the Community shall execute Form B in Schedule 1 and thereafter submit to NERC for approval.

4.8 Where an extension is required, the Mini-Grid Developer shall duly notify the Community Representative at least a month before the expiration of the Exclusivity Period using the applicable form in Schedule 1 to this Agreement stating the reasons for the extension.

## **5 DUTIES AND OBLIGATIONS OF THE PARTIES**

5.1 For the duration of the Exclusivity Period, the duties and obligations of the Community Representative shall be as follows:

5.1.1 The Community Representative shall not and shall ensure that the Community does not:

5.1.1.1 directly or indirectly take any action to solicit, initiate, encourage, assist the submission of any proposal, negotiation or offer from any person or entity for the purpose of developing, installing, commissioning and/or operating a Mini-Grid; and

5.1.1.2 act in a manner that will adversely affect the Mini-Grid Project.

5.1.2 Cooperate in good faith and provide the Mini-Grid Developer all such information, documentation and authority required for the Mini-Grid Project.

5.2 For the duration of the Exclusivity Period, the duties and obligations of the Mini-Grid Developer shall be as follows:

5.2.1 undertake the feasibility and investigations required for Mini-Grid Project in a timely manner;

5.2.2 ensure that the Mini-Grid Project is in compliance with the Technical Codes.

## **6 TIME IS OF THE ESSENCE**

The Parties agree that, for the purpose of this Agreement and for the duration of the Exclusivity Period, they will carry out their respective obligations with respect to the Mini-Grid Project in a timely and efficient manner.

## **7 POST EXCLUSIVITY PERIOD**

7.1 At the end of the Exclusivity Period, where the Mini-Grid Developer decides to implement the Mini-Grid Project:

7.1.1 A definitive agreement will be executed between the Parties;

7.1.2 The Mini-Grid Developer shall comply with the Mini-Grid Regulations 2016.

7.2 At the end of the Exclusivity Period, where the Mini-Grid Developer decides not to implement the Mini-Grid Project:

7.2.1 it shall duly notify the other Party stating the reasons for its decision;

7.2.2 make the necessary restorations required following investigative activities undertaken for the Mini-Grid Project; and

7.2.3 Save for Clause 7.2.2, the Mini-Grid Developer shall have no liability.

## **8 TERMINATION**

8.1 This Agreement may terminate by mutual agreement by all Parties.

8.2 This Agreement automatically terminates, where the Parties execute a definitive agreement pursuant to Clause 7.1.1 for the Mini-Grid Project.

8.3 The Community Representative may terminate this Agreement on written notice to the other Parties if:

8.3.1 it decides to expand before the expiration of the Exclusivity Period;

8.3.2 where the Mini-Grid Developer breaches Clause 5.2.1 and Clause 5.2.3.

8.3.3 Mini-Grid Developer abandons the Project for a period of more than 3 consecutive months;

8.4 The Mini-Grid Developer may terminate this Agreement on written notice to the other Parties if:

8.4.1 it decides not to pursue the Mini-Grid Project; or

8.4.2 the Community Representative breaches Clause 5.1

## **9 REMEDIES**

If during the Exclusivity Period, the Community Representative breaches any of its obligations to the Mini-Grid Developer which results to a loss suffered by the Mini-Grid Developer, the Community Representative must reimburse the Mini-Grid Developer all the costs incurred as a result of the loss.

## **10 CONFIDENTIAL INFORMATION**

10.1 A Party shall not intentionally disclose or allow to be disclosed to any third party any Confidential Information concerning the other Parties or any information obtained under this Agreement and in furtherance to the execution of the Mini-Grid Project unless:

10.1.1 the disclosure is expressly assented to in writing by the Party to which the Confidential Information belongs; or

10.1.2 the disclosure is subject to a legal obligation of disclosure.

10.2 Each Party, after consultation with the others, shall adopt reasonable procedures to preserve the Confidential Information of the other Parties.

10.3 No information shall constitute Confidential Information if:

10.3.1 the information is generic in nature, or have at the relevant time become public knowledge or has been in the public domain, other than as a result of disclosure by the Parties or their representative;

10.3.2 the information has at the relevant time become, already in the possession of the Parties free from any obligation of confidentiality to either of the Parties or

any other person and has not been acquired by any person in breach of any obligations of confidentiality;

10.3.3 the information is required to be disclosed by law or order of any court, tribunal or agency of competent jurisdiction or by any governmental body, department or agency having jurisdiction or it or by any equivalent laws or regulations of institutions or other equivalent authorities in jurisdictions outside Nigeria; or

10.3.4 the information is expressly stated in writing to be non-confidential.

## **11 NON-CIRCUMVENTION**

11.1 At any time prior to the expiration of the Exclusivity Period and two years thereafter, it is expressly agreed that the identities of any individual or entity and any other third parties (including, without limitation, suppliers, customers, financial sources, manufacturers and consultants) discussed and made available by the any Party in respect of the Mini-Grid Project and any related business opportunity shall constitute Confidential Information and the recipient or any group company or associated entity or individual shall not (without the prior written consent of the disclosing Party):

11.1.1 directly or indirectly initiate, solicit, negotiate, contract or enter into any business transactions, agreements or undertakings with any such third party identified or introduced by the disclosing Party; or

11.1.2 seek to by-pass, compete, avoid or circumvent the disclosing Party from any business opportunity that relates to the Mini-Grid Project by utilising any Confidential Information or by otherwise exploiting or deriving any benefit from the Confidential Information.

11.2 Except insofar as the Party was engaged in a prior business relationship with the individual or entity or third party.

## **12 ENTIRE AGREEMENT**

The Parties agree that this Agreement including the Schedules and the Forms therein executed for extensions of the Exclusivity Period constitutes the entire Agreement between the parties irrespective of all previous agreements, promises, assurances, warranties, representations and understanding between them, whether written or oral, relating to its subject matter.

***IN WITNESS** whereof this Agreement was executed the day and year first above written.*



For **[MINI-GRID DEVELOPER]**

Signed at ..... on this ..... day of ..... 2016.

By:

Name:

WITNESSES

1. \_\_\_\_\_

2. \_\_\_\_\_

For **[COMMUNITY REPRESENTATIVE]**

Signed at ..... on this ..... day of ..... 2016.

By:

Name:

WITNESSES

1. \_\_\_\_\_

2. \_\_\_\_\_

**SCHEDULE 1**

**FORM A – INITIAL EXCLUSIVITY PERIOD REQUEST FORM**

Company Representative name: \_\_\_\_\_

Company name: \_\_\_\_\_

Company address: \_\_\_\_\_

Company registration number: \_\_\_\_\_

Duly authorised representative of the abovementioned company

and

Community Representative name: \_\_\_\_\_

Position: \_\_\_\_\_

Address: \_\_\_\_\_

Duly authorised representative of the Community of **[Name of Community]**

Pursuant to Clause 4.1, 4.4 and 4.6 of the Exclusivity Agreement dated [ ], I [ NAME ], the Mini-Grid Developer of the Mini-Grid Project, hereby request for an initial exclusivity period for [ ] months (“Initial Exclusivity Period”). The reasons for exclusivity are as follows: **[NOTE: The Parties shall only use Form A for an Initial Exclusivity Period which exceeds 12 months. Where the Initial Exclusivity Period does not exceed 12 months, the Agreement shall be sufficient].**

(Reasons of your request and/or forecasted tasks to be performed):

\_\_\_\_\_  
\_\_\_\_\_

**(Attach the necessary documentation to support the above request)**

I, [NAME OF COMMUNITY REPRESENTATIVE] hereby grant the exclusivity requested under the same terms and conditions of the Agreement. Thus, the exclusivity period expires on **XX** of the month of **XXXXX** of the year **XXXX**.

This exclusivity is subject to approval of National Electricity Regulatory Commission (NERC).

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
Signature: [NERC Representative]

\_\_\_\_\_  
Signature: [Mini-Grid Developer Representative]

\_\_\_\_\_  
Signature: [Community Representative]

**FORM B – SUPPLEMENTARY EXCLUSIVITY PERIOD REQUEST FORM**

Company Representative name: \_\_\_\_\_

Company name: \_\_\_\_\_

Company address: \_\_\_\_\_

Company registration number: \_\_\_\_\_

Duly authorised representative of the abovementioned company  
and

Community Representative name: \_\_\_\_\_

Position: \_\_\_\_\_

Address: \_\_\_\_\_

Duly authorised representative of the Community of **[Name of Community]**

Pursuant to Clause 4.2, 4.3 and 4.7 of the Exclusivity Agreement dated [ ], I [ NAME ], the Mini-Grid Developer of the Mini-Grid Project, hereby request for an extension of an additional [XX] months (“Supplementary Exclusivity Period”) under the same terms and conditions of said Agreement.

(Reasons of your request and/or outstanding tasks to be performed):

\_\_\_\_\_  
\_\_\_\_\_

**(Attach the necessary documentation to support the above request)**

I, [NAME OF COMMUNITY REPRESENTATIVE] hereby grant the extension requested under the same terms and conditions of the Agreement. Thus, the extended exclusivity period expires on **XX** of the month of **XXXXX** of the year **XXXX**.

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature: [NERC Representative]

[NERC

Signature: [Mini-Grid Developer Representative]

[Mini-Grid

Signature: [Community Representative]

[Community

## ANNEX 1B

### AGREEMENT FORM FOR AN EXCLUSIVE PROJECT DEVELOPMENT PERIOD AT A SITE FOR AN INTERCONNECTED MINI-GRID

*N.B – This is a template form agreement that can be amended to suit the specific circumstance and peculiarities of the parties.*

This Agreement is dated [XXX]

#### **Between**

[XXXX], a company duly incorporated under the laws of the Federal Republic of Nigeria and having its registered office at [OFFICE ADDRESS] hereinafter called the “DisCo” which expression shall where the context so admits include its successors-in-title.

#### **And**

[XXXX], a company duly incorporated under the laws of the Federal Republic of Nigeria with registration number [RC Number] and having its registered office at [OFFICE ADDRESS] hereinafter called the “Mini-Grid Developer”.

#### **And**

[XXXX] a legally authorised representative of [NAME OF COMMUNITY] in its capacity as [Village Head] hereinafter called the “Community Representative”.

#### **OR**

[XXXX] a Company/Association duly incorporated/registered under the laws of the Federal Republic of Nigeria and having its registered office at [OFFICE ADDRESS] acting as the legally authorised representative of [NAME OF COMMUNITY/CHAIRMAN OF THE LOCAL GOVERNMENT AREA] hereinafter called the “Community”.

(In this Agreement, the DisCo, Mini-Grid Developer and Community Representative are referred to collectively as “Parties” and individually as “Party”.)

#### **RECITAL/ BACKGROUND**

- A. The Mini-Grid Developer is in the business of constructing and developing Mini-Grids.
- B. Pursuant to Section 67 of the Electric Power Sector Reform Act (“EPSRA”), Nigerian Electricity Regulatory Commission (“NERC”) has issued to the DisCo a distribution Licence to undertake distribution activities and other related businesses within [AREA OR ZONE WHERE THE DISCO CAN OPERATE] which includes the Distribution Network.

- C. The Mini-Grid Developer has identified the Location as suitable for a Mini-Grid in accordance with the Mini-Grid Regulations, 2016 and seeks to undertake feasibility studies preparatory to developing a Mini-Grid to be connected to the DisCo’s distribution network described in Schedule 1 below to supply electricity to the Community.
- D. In view of the above, the Community Representative and the DisCo have agreed to grant the Mini-Grid Developer an exclusive period to develop the Mini-Grid under the terms set out in this Agreement.

**NOW THEREFORE**, in view of the foregoing and in consideration of the mutual benefits to be derived contained herein, and any other good and valuable consideration, the sufficiency of which is hereby acknowledged, and intending to be legally bound, the Parties hereby agree as follows:

**1. DEFINITIONS AND INTERPRETATIONS**

1.1 In this Agreement each of the following words and expressions shall have the following meanings:

- “Confidential Information”** shall include but is not limited to technical know-how, information and data, plans, strategies, techniques, processes, operations, formulae, proprietary information and material belonging to any of the Parties in respect of the Mini-Grid Project.
- “Effective Date”** means the date of this Agreement.
- “Exclusivity Period”** means the Initial Exclusivity Period any further extensions of the exclusive period granted pursuant to Clause 4.
- “Location”** means the area within the distribution network where a Mini-Grid is proposed to be located.
- “Permit”** means a Permit granted by NERC to a Mini-Grid Operator for the construction, operation, maintenance and where applicable ownership of Mini-Grids.
- “Technical Codes”** shall have the same meaning as in the Mini-Grid Regulations
- “Tripartite Contract”** means the contract between an Interconnected Mini-Grid Operator, Distribution Licencee and Connected Community which

shall be as agreed between the Parties

1.2 In this Agreement, except where the context otherwise requires:

- 1.2.1 any reference to “this Agreement” includes the Schedules and Annexures to it, each of which forms part of this Agreement for all purposes;
- 1.2.2 if a period of time is specified as **from** a given day, or from the day of an act or event, it shall be calculated exclusive of that day; and
- 1.2.3 if a period of time is specified as **to** a given day, or to the day of an act or event, it shall be calculated inclusive of that day.

## 2. COMMENCEMENT

This Agreement shall commence on the Effective Date.

## 3. MINI-GRID PROJECT

The Parties agree that the Mini-Grid Developer shall have the right to investigate, develop and commission a Mini-Grid in the Community (“**Mini-Grid Project**”).

## 4. EXCLUSIVITY PERIOD

- 4.1 The Exclusivity Period shall commence on the Effective Date and shall terminate [12 or 24] months thereafter (“**Initial Exclusivity Period**”).
- 4.2 Where the Initial Exclusivity Period is for 12 months, the DisCo and the Community Representative shall have the discretion to extend the Initial Exclusivity Period for up to an additional 12 months after the expiration of the Initial Exclusivity Period (“**Supplementary Exclusivity Period**”), provided that the Mini-Grid Developer has made appreciable progress to the satisfaction of the DisCo and Community ***[NOTE: the Parties can set out specific conditions precedent that needs to be satisfied by the Parties during the exclusivity period.]***
- 4.3 Where an extension is required, the Mini-Grid Developer shall duly notify the DisCo and the Community Representative at least a month before the expiration of the Exclusivity Period using the applicable form in Schedule 1 to this Agreement stating the reasons for the extension.

## **5 DUTIES AND OBLIGATIONS OF THE PARTIES**

5.1 For the duration of the Exclusivity Period, the duties and obligations of the DisCo and the Community Representative shall be as follows:

5.1.1 The DisCo and the Community Representative shall ensure that the Community does not:

5.1.1.1 directly or indirectly take any action to solicit, initiate, encourage, assist the submission of any proposal, negotiation or offer from any person or entity for the purpose of developing, installing, commissioning and/or operating a Mini-Grid ; and

5.1.1.2 act in a manner that will adversely affect the Mini-Grid Project.

5.1.2 Cooperate in good faith and provide the Mini-Grid Developer all such information, documentation and authority required for the Mini-Grid Project.

5.2 For the duration of the Exclusivity Period, the duties and obligations of the Mini-Grid Developer shall be as follows:

5.2.1 undertake the feasibility and investigations required for the Mini-Grid Project in a timely manner;

5.2.2 ensure that the Mini-Grid Project is in compliance with the Technical Codes.

## **6 TIME IS OF THE ESSENCE**

The Parties agree that, for the purpose of this Agreement and for the duration of the Exclusivity Period they will carry out their respective obligations with respect to the Mini-Grid Project in a timely and efficient manner.

## **7 POST EXCLUSIVITY PERIOD**

7.1 At the end of the Exclusivity Period, where the Mini-Grid Developer decides to implement the Mini-Grid Project, a Tripartite Contract will be executed between the Parties;

7.2 At the end of the Exclusivity Period, where the Mini-Grid Developer decides not to implement the Mini-Grid Project:

7.2.1 it shall duly notify the other Parties stating the reasons for its decision;

7.2.2 make the necessary restorations required following investigative activities undertaken for the Mini-Grid Project; and

7.2.3 Save for Clause 7.2.2, the Mini-Grid Developer shall have no liability.

## **8 TERMINATION**

8.1 This Agreement may terminate by mutual agreement by all Parties.

8.2 This Agreement automatically terminates, where the Parties execute a Tripartite Contract for the Mini-Grid Project or any other definitive agreement.

8.3 The DisCo and/or Community Representative may terminate this Agreement on written notice to the other Parties if:

8.3.1 it decides to expand before the expiration of the Exclusivity Period;

8.3.2 where the Mini-Grid Developer fails to make appreciable progress with the Exclusivity Period and this is as a result of no fault of the Disco or Community; or

8.3.3 where the Mini-Grid Developer breaches Clause 5.2.1 and Clause 5.2.3.

8.4 The Mini-Grid Developer may terminate this Agreement on written notice to the other Parties if:

8.4.1 it decides not to pursue the Mini-Grid Project; or

8.4.2 where the DisCo or the Community Representative breaches Clause 5.1.

## **9 REMEDIES**

If during the Exclusivity Period, the Community Representative and/or the DisCo breaches any of its obligations to the Mini-Grid Developer which results to a loss suffered by the Mini-Grid Developer, the Community Representative and DisCo will be held jointly liable and must reimburse the Mini-Grid Developer all the costs incurred as a result of the loss.



## **10 CONFIDENTIAL INFORMATION**

- 10.1 A Party shall not intentionally disclose or allow to be disclosed to any third party any Confidential Information concerning the other Parties or any information obtained under this Agreement and in furtherance to the execution of the Mini-Grid Project unless:
- 10.1.1 the disclosure is expressly assented to in writing by the Party to which the Confidential Information belongs; or
  - 10.1.2 the disclosure is subject to a legal obligation of disclosure.
- 10.2 Each Party, after consultation with the others, shall adopt reasonable procedures to preserve the Confidential Information of the other Parties.
- 10.3 No information shall constitute Confidential Information if:
- 10.3.1 the information is generic in nature, or have at the relevant time become public knowledge or has been in the public domain, other than as a result of disclosure by the Parties or their representative;
  - 10.3.2 the information has at the relevant time become, already in the possession of the Parties free from any obligation of confidentiality to either of the Parties or any other person and has not been acquired by any person in breach of any obligations of confidentiality;
  - 10.3.3 the information is required to be disclosed by law or order of any court, tribunal or agency of competent jurisdiction or by any governmental body, department or agency having jurisdiction or it or by any equivalent laws or regulations of institutions or other equivalent authorities in jurisdictions outside Nigeria; or
  - 10.3.4 the information is expressly stated in writing to be non-confidential.

## **11 NON-CIRCUMVENTION**

- 11.1 At any time prior to the expiration of the Exclusivity Period and two years thereafter, it is expressly agreed that the identities of any individual or entity and any other third parties (including, without limitation, suppliers, customers, financial sources, manufacturers and consultants) discussed and made available by the any Party in respect of the Mini-Grid Project and any related business opportunity shall constitute

Confidential Information and the recipient or any group company or associated entity or individual shall not (without the prior written consent of the disclosing Party):

11.1.1 directly or indirectly initiate, solicit, negotiate, contract or enter into any business transactions, agreements or undertakings with any such third party identified or introduced by the disclosing Party; or

11.1.2 seek to by-pass, compete, avoid or circumvent the disclosing Party from any business opportunity that relates to the Mini-Grid Project by utilising any Confidential Information or by otherwise exploiting or deriving any benefit from the Confidential Information.

11.2 Except insofar as the Party was engaged in a prior business relationship with the individual or entity or third party.

**12 ENTIRE AGREEMENT**

The Parties agree that this Agreement including the Schedules and the Forms therein executed for extensions of the Exclusivity Period constitutes the entire Agreement between the parties irrespective of all previous agreements, promises, assurances, warranties, representations and understandings between them, whether written or oral, relating to its subject matter.

*IN WITNESS* whereof this Agreement was executed the day and year first above written.

For **[MINI-GRID DEVELOPER]**

Signed at ..... on this ..... day of ..... 2016.

By:

Name:

WITNESSES

1. \_\_\_\_\_

2. \_\_\_\_\_

For **[ELECTRICITY DISTRIBUTION COMPANY]**

Signed at ..... on this ..... day of ..... 2016.

By:

Name:

WITNESSES

1. \_\_\_\_\_

2. \_\_\_\_\_

For **[COMMUNITY/COMMUNITY REPRESENTATIVE]**

Signed at ..... on this ..... day of ..... 2016.

By:

Name:

WITNESSES

1. \_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

**ANNEX 2**

**REGISTRATION FORM FOR MINI-GRIDS BELOW 100 KW**

**(Pursuant to S. 8 (1) (b) of the NERC Regulations for Mini-Grids, 2016)**

**IMPORTANT NOTES**     **Your Registration is incomplete unless all required documents are submitted.**

**NERC reserves the right to verify the accuracy of this information.**

In compliance with the NERC Mini-Grid Regulations, 2016 I am herewith certifying that I [NAME], \_\_\_\_\_ have commissioned a Mini-Grid system of up to 100 kW of Distributed Power on \_\_\_\_\_ (date)

I hereby apply to register my project as a Mini-Grid below 100 kW.

**1.0 PARTICULARS OF APPLICANT AND CONTACT PERSON**

Name of Applicant: \_\_\_\_\_

Physical address: \_\_\_\_\_

Postal address: \_\_\_\_\_

Tel: \_\_\_\_\_

Fax: \_\_\_\_\_

Mobile Phone: \_\_\_\_\_

E-mail: \_\_\_\_\_

Website Address: \_\_\_\_\_

Name of Contact Person: \_\_\_\_\_

Mobile Phone of Contact Person: \_\_\_\_\_

E-mail for Contact Person: \_\_\_\_\_

**2.0 LEGAL STATUS OF APPLICANT**

2.1 Indicate legal status of Applicant (Tick relevant option)

A. Sole Proprietorship

- B. Partnership
- C. Public Limited Liability Company
- D. Private Limited Liability Company
- E. Cooperative Society
- F. Incorporated Trustee
- G. Other (please specify)

**(Attach Certificate of Registration, Certificate of Incorporation, Memorandum and Articles of Association, Deed of Partnership, Deed of Trust, as applicable)**

**3.0 NATURE OF APPLICATION**

3.1 State whether Application is a fresh Application or Renewal

---

3.2 Existing Permits/Licences/Tripartite Contracts

Does the Applicant have an existing Permit or Licence and/or Tripartite Contract issued by the Commission for other systems?

---

If yes, state the nature of the Permit/Licence/Tripartite Contract, date issued and the Permit/Licence/Tripartite Contract number.

---

3.3 Refusal, Suspension or Cancellation of Permit/Licence/Tripartite Contract

Has the Applicant ever been refused a Permit/Licence/Tripartite Contract or had its Permit/Licence/Tripartite Contract suspended and/or cancelled by the Commission?

---

If yes, give details of the refusal, suspension, and/or cancellation.

---

**4.0 MAIN BUSINESS ACTIVITIES OF APPLICANT**

Please indicate the main business activities the Applicant is currently engaged in.

---

---

## 5.0 DESCRIPTION OF PROJECT

5.1 Site of the Mini-Grid (State, Local Government Area, Ward, Village)

---

(Attach title document to the land, relevant maps and drawings)

5.2 Generation

	Type of system	Size in kW
<b>Generation</b>	<input type="checkbox"/> Solar	_____ kW
	<input type="checkbox"/> Wind	_____ kW
	<input type="checkbox"/> Biomass	_____ kW
	<input type="checkbox"/> Hydro	_____ kW
	<input type="checkbox"/> Diesel	_____ kW
		Total : _____ kW
<b>Storage</b>	_____	_____ kW
<b>Inverters</b>	_____	_____ kW

Location of the Power Plant (geographical coordinates):

---

Is the Power Plant new? If no, please state number of years the plant has been in operation

---

5.3 Distribution

	Type of system	Size of system
<b>Lines</b>	<input checked="" type="checkbox"/> Single phase MV	_____ metres
	<input type="checkbox"/> Three-phase MV	_____ metres
	<input type="checkbox"/> Single phase LV	_____ metres
	<input checked="" type="checkbox"/> Three-phase LV	_____ metres
		Total : _____ metres
<b>Type of Lines</b>	<input type="checkbox"/> Overhead <input type="checkbox"/> Underground	
<b>Poles</b>	<input type="checkbox"/> Cement	_____ poles
	<input type="checkbox"/> Wood	_____ poles

	<input type="checkbox"/> Other	_____ poles Total : _____ poles
<b>Transformers</b>	_____	_____ kW

Length of distribution network (indicate geographical coordinates of four reference points)

---

#### 5.4 Customers

Number of customers:

- Residential: \_\_\_\_\_
- Commercial: \_\_\_\_\_
- Industrial: \_\_\_\_\_
- Special: \_\_\_\_\_

#### 5.5 Revenue and Sources of Funding

Expected electricity sales [kWh/year]: \_\_\_\_\_

Electricity tariff [NGN/kWh or flat rate per W]: \_\_\_\_\_

Share Capital contribution (specify foreign or local): \_\_\_\_\_

Loan capital (specify source and provide evidence): \_\_\_\_\_

Others (specify): \_\_\_\_\_

#### DECLARATION BY THE APPLICANT

The project is not unlawful or contrary to the interest of the Federal Republic of Nigeria, provisions of the Electric Power Sector Reform Act and relevant NERC Regulations. I/we hereby declare that the details stated above are, to the best of my/our knowledge, true and correct.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

THE COMMON SEAL OF THE WITHIN NAMED APPLICANT

(Name of Applicant)

Has hereunto been affixed in the presence of:

Sign: _____	Sign: _____
-------------	-------------

Name:	Name:
Designation:	Designation:

Sworn to this \_\_\_\_\_ day of \_\_\_\_\_ 200\_\_\_\_\_ at \_\_\_\_\_  
BEFORE ME

\_\_\_\_\_

**NOTARY PUBLIC/COMMISSIONER OF OATHS**



**ANNEX 3**

**APPLICATION FORM FOR MINI-GRID PERMIT**

**(Pursuant to S.7 and S. 8 (1) (a) of the NERC Regulations for Mini-Grids, 2016)**

**IMPORTANT NOTE: Your Application is incomplete unless all required documents are submitted and the application is accompanied by the appropriate processing fee.**

In compliance with the NERC Mini-Grid Regulations, 2016, I am herewith certifying that I [NAME]\_\_\_\_\_, hereby apply for a Permit pursuant S. 7 or S. 8 (1) (a) of the Mini-Grid Regulations.

**1.0 PARTICULARS OF APPLICANT AND CONTACT PERSON**

Name:\_\_\_\_\_

Physical address:\_\_\_\_\_

Postal address:\_\_\_\_\_

Tel:\_\_\_\_\_

Fax:\_\_\_\_\_

Mobile Phone:\_\_\_\_\_

E-mail:\_\_\_\_\_

Website Address:\_\_\_\_\_

Name of Contact Person:\_\_\_\_\_

Mobile Phone of Contact Person:\_\_\_\_\_

E-mail of Contact Person:\_\_\_\_\_

**2.0 LEGAL STATUS OF APPLICANT**

2.1 Indicate legal status of Applicant (Tick relevant option)

- H. Sole Proprietorship
- I. Partnership
- J. Public Limited Liability Company
- K. Private Limited Liability Company
- L. Cooperative Society
- M. Incorporated Trustee
- N. Other (please specify)

**(Attach Certificate of Incorporation, Memorandum and Articles of Association, Deed of Partnership, Deed of Trust, as applicable)**

**3.0 NATURE OF APPLICATION**

3.1 State whether Application is a fresh Application or Renewal

---

3.2 Existing Permit/Licences/Tripartite Contract

Does the Applicant have an existing Permit/Licence/Tripartite Contract issued by the Commission for other systems?

---

If yes, state the nature of the Permit/Licence/Tripartite Contract, date issued and the Permit/Licence/Tripartite Contract number

---

3.3 Refusal, Suspension or Cancellation of Permit/Licence/Tripartite Contract

Has the Applicant ever been refused a Permit/Licence/Tripartite Contract or had its Permit/Licence/Tripartite Contract suspended and/or cancelled by the Commission?

---

(b) If yes, give details of the refusal, suspension, and/or cancellation.

---

**4.0 MAIN BUSINESS ACTIVITIES OF APPLICANT**

Please indicate the main business activities the Applicant is currently engaged in.

---

---

**5.0 DESCRIPTION OF PROJECT**

Detailed description of the project:

---

---

---

5.1 Site of the Mini-Grid (State, Local Government Area, Ward, Village)

---

**(Attach title document to the land, relevant maps and drawings)**

5.2 Generation

	Type of system	Size in kW
<b>Generation</b>	<input type="checkbox"/> Solar	_____ kW
	<input type="checkbox"/> Wind	_____ kW
	<input type="checkbox"/> Biomass	_____ kW
	<input type="checkbox"/> Hydro	_____ kW
	<input type="checkbox"/> Diesel	_____ kW
		Total : _____ kW
<b>Storage</b>	_____	_____ kW
<b>Inverters</b>	_____	_____ kW

Location of the Power Plant (geographical coordinates):

---

Is the Power Plant new? If no, please state number of years the plant has been in operation.

---

5.3 Distribution

	Type of system	Size of system
<b>Lines</b>	<input type="checkbox"/> Single phase MV	_____ metres
	<input type="checkbox"/> Three-phase MV	_____ metres
	<input type="checkbox"/> Single phase LV	_____ metres
	<input type="checkbox"/> Three-phase LV	_____ metres
		Total : _____ metres
<b>Type of Lines</b>	<input type="checkbox"/> Overhead <input type="checkbox"/> Underground	
<b>Poles</b>	<input type="checkbox"/> Cement	_____ poles
	<input type="checkbox"/> Wood	_____ poles
	<input type="checkbox"/> Other	_____ poles

		Total : _____ poles
<b>Transformers</b>	_____	_____ kW

Length of distribution network (indicate geographical coordinates of four reference points)

---

#### 5.4 Customers

Number of customers:

- Residential: \_\_\_\_\_
- Commercial: \_\_\_\_\_
- Industrial: \_\_\_\_\_
- Special: \_\_\_\_\_

#### 5.5 Revenue and Sources of Funding

Expected electricity sales [kWh/year]: \_\_\_\_\_

Electricity tariff [NGN/kWh or flat rate per W]: \_\_\_\_\_

Share Capital contribution (specify foreign or local): \_\_\_\_\_

Loan capital (specify source and provide evidence): \_\_\_\_\_

Others (specify): \_\_\_\_\_

#### 6.0 DECLARATION BY THE APPLICANT

The project is not unlawful or contrary to the interest of the Federal Republic of Nigeria. I/we hereby declare that the details stated above are, to the best of my/our knowledge, true and correct.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

THE COMMON SEAL OF THE WITHIN NAMED APPLICANT

(Name of Applicant)

Has hereunto been affixed in the presence of:

Sign:

Sign:

Name:

Name:

Sworn to this \_\_\_\_\_ day of \_\_\_\_\_ 200\_\_\_\_\_ at \_\_\_\_\_

BEFORE ME

\_\_\_\_\_

**NOTARY PUBLIC/COMMISSIONER OF OATHS**

## **ACCOMPANYING DOCUMENTATION**

**PLEASE REMEMBER TO SUBMIT 2 HARD COPIES AND A SOFT COPY OF ALL SUPPORTING DOCUMENTS**

1. Contract between the Community Representative and Mini-Grid Operator, where applicable
2. Power station layout drawings
3. Map with position of power station and distribution network marked using indicators to distinguish single phase and three phase as well as medium voltage networks
4. Certified copy of Certificate of Incorporation, Memorandum and Articles of Association, Deed of Partnership or Deed of Trust, as applicable
5. Certified copy of Certificate of Occupancy or Lease Agreement for Project Site
6. Certified copy of building permit
7. Filled Standardized Spreadsheets for Tariff Calculation

**ANNEX 4**

**REPORTING FORM**

In compliance with the NERC Mini-Grid Regulations, 2016 S. 13, I [NAME], \_\_\_\_\_ am presenting the report on the following Mini-Grid.

**1.0 PARTICULARS OF COMPANY; CONTACT PERSON AND MINI-GRID**

Company Name: \_\_\_\_\_

Physical address: \_\_\_\_\_

Postal address: \_\_\_\_\_

Tel: \_\_\_\_\_

Fax: \_\_\_\_\_

Mobile Phone: \_\_\_\_\_

E-mail: \_\_\_\_\_

Website Address: \_\_\_\_\_

Name of Contact Person: \_\_\_\_\_

Mobile Phone of Contact Person: \_\_\_\_\_

E-mail for Contact Person: \_\_\_\_\_

Name of Mini-Grid site: \_\_\_\_\_

Geographical coordinates of the Mini-Grid: \_\_\_\_\_

**2.0 SYSTEM SIZE; COST AND REVENUE REPORTING**

<b>Year</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Number of customers</b>				
<b>Size of generation plant per component</b>				

<b>Revenue from electr. sales</b>				
<b>Other revenue</b>				
<b>Fuel Cost</b>				
<b>O&amp;M Cost</b>				
<b>Replacement Cost</b>				
<b>Other cost (Please specify)</b>				
<b>Profit/Loss</b>				

**3.0 INCIDENCES AND ACCIDENTS**

Description of incident 1:

Date and time of incident:

Description of incident 2:

Date and time of incident 2:

Description of incident 3:

Date and time of incident 3:

**4.0 SIGNATURE**

I herewith confirm that the above information is true according to the best of my knowledge.

Name, Date,



Signature

**ANNEX 5**  
**APPLICATION PROCEEDINGS FOR REGISTRATION, PERMIT OR TRIPARTITE CONTRACT**

These proceedings for a Permit/Tripartite Contract shall guide the Mini-Grid Developers to make use of the NERC Mini-Grid Regulations, 2016. It shall not replace the regulation itself. In case of any conflict between the regulations and this document, the regulations shall prevail.

**1. KEY CONSIDERATIONS**

In order to apply for a Permit or the approval of a Tripartite Contract, the process differs if the main grid is already present in the area where the project will be developed or the site is off-grid.

Where an area has no existing distribution grid, the area is considered as unserved and may receive an Isolated Mini-Grid.

Where the grid is present but the area is poorly electrified or has a non-functional distribution-grid, it is considered as underserved and is eligible for an Interconnected Mini-Grid.

**2. UNSERVED AREAS – ISOLATED MINI-GRIDS**

The entire application process for unserved areas is summarised in the figure 1 (left part) and 2 located at the end of this document. In these figures, the steps are described from the point of view of the Mini-Grid Developer.

**STEP 1: IDENTIFICATION OF THE ELIGIBILITY OF UNSERVED AREA**

In order to be eligible, the area selected must meet the following conditions:

- The area is being unserved.
- The area must not have been assigned to an IEDNO (Independent Electricity Distribution Network Operator) or any other Mini-Grid Developer.
- The area is not part of an already existing expansion plan (5-year plan) of a DisCo. Where it is identified that the area is part of an expansion plan of a DisCo, the Mini-Grid Developer needs the consent of the DisCo before the area identified becomes eligible.

If the area identified fulfils all the requirements listed above, the process can continue and the contact with the Community can be established.

As a repository of the expansion plans of the DisCos and applications from IEDNOs and other Mini-Grid developers, NERC may also assist Mini-Grid developers in identifying a suitable area that fulfils the above mentioned criteria. Federal and State authorities responsible for electrification should also be consulted.

## **STEP 2: CONTACT WITH THE COMMUNITY AND SETTLEMENT OF AN EXCLUSIVITY PERIOD**

Now, that the area located can potentially receive an Isolated Mini-Grid, the Community concerned should be contacted in order to know whether the local population is interested in benefitting from the services provided by the Mini-Grid Operator.

Both, the Community or the Mini-Grid Developer can approach the other party to start negotiations.

At that stage, the Community and the Mini-Grid Developer can decide to set an exclusivity period.

This exclusivity period is used to investigate the feasibility of implementing a Mini-Grid at the location and ensures that no other operator is conducting any other feasibility during the investigation period.

The exclusivity period is an agreement only between the Community and the Mini-Grid Operator is only valid up to 12 months. This period could then be extended once and only for a further 12 months subject to the approval of the Commission.

If at the inception, the Mini-Grid Operator needs an exclusivity period of more than 12 months, it can also enter into an exclusivity agreement. However, this would need to be justified, submitted to the Commission and the agreement approved by the Commission.

The Annex 1A of the NERC Mini-Grid Regulations, 2016 (called “Agreement for exclusivity period”) provides a form that shall be used to draft the exclusivity agreement.

## **STEP 3: SIZE OF THE SYSTEM AND REGISTRATION**

If the power distributed by the isolated Mini-Grid is larger than 100 kW, the Mini-Grid Developer will need to apply for a mandatory Permit. If the Generation Capacity of the power station installed is larger than 1 MW the plant is not a Mini-Grid under this regulation and other regulations apply. Generation Capacity is defined as the guaranteed active power that a generation plant can supply to a load or network at any point in time under the given environmental constraints (temperature, humidity, etc.) and a power factor of 0.8 (inductive) for at least one hour under the assumption that the plant is well maintained and fully functional;

If the power distributed by the isolated Mini-Grid is below 100 kW, the Mini-Grid Developer can voluntarily apply for a Permit following the same procedure as for the mandatory permit.

A distribution network distributes a power up to 100 kW if the average active power fed into the distribution network in each 15 min interval of its operation period is below or equal to 100 kW.

In case it is granted with the Permit by the Commission, the Mini-Grid Operator will be entitled to receive a compensation before the Mini-Grid can be connected to the main distribution grid

and will enjoy any other protection given to the Mini-Grid Operator under the Mini-Grid Regulations, 2016.

The Mini-Grid Operator that has been granted a Permit will need to establish an agreement with the beneficiary community. The Mini-Grid Operators may decide to use the template included in Annex 12.

In case the Mini-Grid Developer decides not to apply for a Permit, it shall register by submitting the registration form called “Registration form for Mini-Grids smaller 100 kW” (Annex 2 of the NERC Mini-Grid Regulations, 2016).

### **3. UNDERSERVED AREAS – INTERCONNECTED MINI-GRIDS**

The entire application process for underserved areas is summarised in the figure 1 (right part) and 3 located at the end of this document. In these figures, the steps are described from the point of view of the Mini-Grid Developer/Operator.

#### **STEP 1: IDENTIFICATION OF THE ELIGIBILITY OF AN UNDERSERVED AREA**

In order to be eligible, the Community concerned should be first contacted in order to know whether the local population is interested in benefitting from the services provided by the Mini-Grid Operator. The Community selected should meet the following criteria:

- The Community is being underserved. The main grid is present in that area, but does not provide a sufficient level of service to meet the Community’s electricity demand.
- The Community is ready to pay higher tariffs than the main grid tariff in order to improve the reliability of electricity supply.

#### **STEP 2: CONTRACT WITH THE DISTRIBUTION LICENCEE AND SETTLEMENT OF AN EXCLUSIVITY PERIOD**

Once it has been established that the area located can potentially receive an Interconnected Mini-Grid, the Distribution Licencee should be contacted to know if it would be willing to enter in a Tripartite Contract (refer to Annex 11 for a proposed template).

At that stage, the Community, the Mini-Grid Developer and the Distribution Licencee can decide to set an exclusivity period.

This exclusivity period is used to investigate the feasibility of implementing a Mini-Grid at the location and ensures that no other operator is conducting any other feasibility study during the investigation period.

The exclusivity period is an agreement between the Community, the Mini-Grid Developer and the Distribution Licencee valid for up to 12 months. However, this period can be extended once and only for a further 12 months subject to the approval of the Commission (refer to Annex 1B).

If at the inception, the Mini-Grid Developer needs an exclusivity period of more than 12 months, it can also enter into an exclusivity agreement. However, this would need to be justified to the Commission and the agreement approved by the Commission.

The Annex 1B of the NERC Mini-Grid Regulations, 2016 (called “Agreement for exclusivity period for Interconnected Mini-Grid”) is the document to use in order to set an exclusivity period.

### **STEP 3: TRIPARTITE CONTRACT AND REGISTRATION**

An agreement between the Connected Community, the Mini-Grid Operator and the Distribution Licencee must be found and a Tripartite Contract (Annex 11 of the NERC Mini-Grid Regulations, 2016) must be established.

The contract is then submitted to NERC for approval.

**APPLICATION PROCESS FOR A PERMIT OR TRIPARTITE CONTRACT PURSUANT TO  
S.7, S.8 AND S.9**

**1. Form of Application**

- a. In case of a Permit, the application shall be in the form specified in Annex 3 below and shall contain the information specified therein. In case of a Tripartite, the Mini-Grid Developer shall submit the Tripartite Contract, as agreed with the DisCo and the Beneficiary Community, for approval.
- b. The application shall be addressed to the Secretary of the Commission, and delivered by hand or sent by regular mail or courier to the Commission's headquarters.
- c. The application shall be signed and dated by the applicant or authorized representative of the applicant.
- d. The application shall be submitted in three paper copies and an electronic version in Microsoft Office software format.
- e. The applications for the Permit or Tripartite Contract must contain all the information specified in the Application form or the Contract respectively.

**2. Acknowledgement of the Application**

On receipt of the Application, the Commission shall note thereon the date of its receipt, and shall send to the Applicant an acknowledgement stating the date of receipt.

### **3. Approval or Refusal of Permit/Tripartite Contract**

- a. After due consideration of the Application, the Commission shall issue or refuse to issuance of the Permit/Tripartite Contract.
- b. The period between the acknowledgement of receipt of the Application as specified in Paragraph 2, and the date on which the Commission notifies the Applicant of its decision or proposed decision to approve or refuse the Permit/Tripartite Contract as the case may be, shall not exceed thirty (30) days.
- c. Where the Commission has approved a Permit/Tripartite Contract, the Commission shall inform the Applicant of such approval and the conditions to be satisfied before the grant of the Permit/Tripartite Contract.
- d. If the Commission intends to refuse the issuance of a Permit or approval of a Tripartite Contract, it shall notify the Applicant in writing of its intention stating the reasons for the decision.
- e. The Applicant shall have the opportunity to make adequate representations to the Commission within thirty (30) days of the Applicant's receipt of the notification from the Commission of the refusal of a Permit/Tripartite Contract.
- f. The Commission shall consider the representation made by the Applicant and shall, if the representation is unsuccessful, or no representation was made, duly notify the Applicant in writing that the Application for a Permit/Tripartite Contract has been refused.
- g. The reasons for refusing the Permit shall be clearly stated in writing by the Commission to the Applicant.

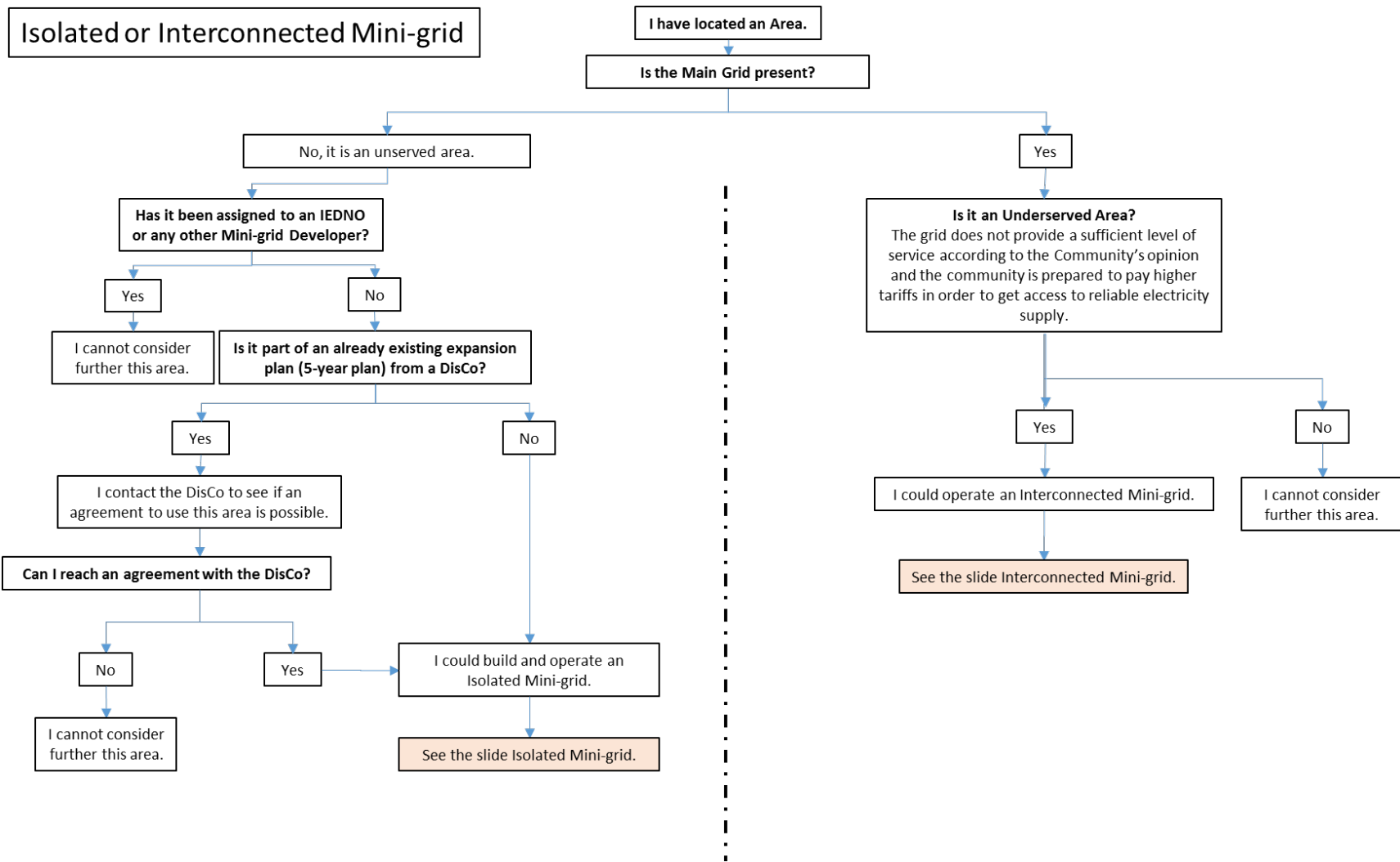


Figure 1: Isolated or Interconnected Mini-Grid



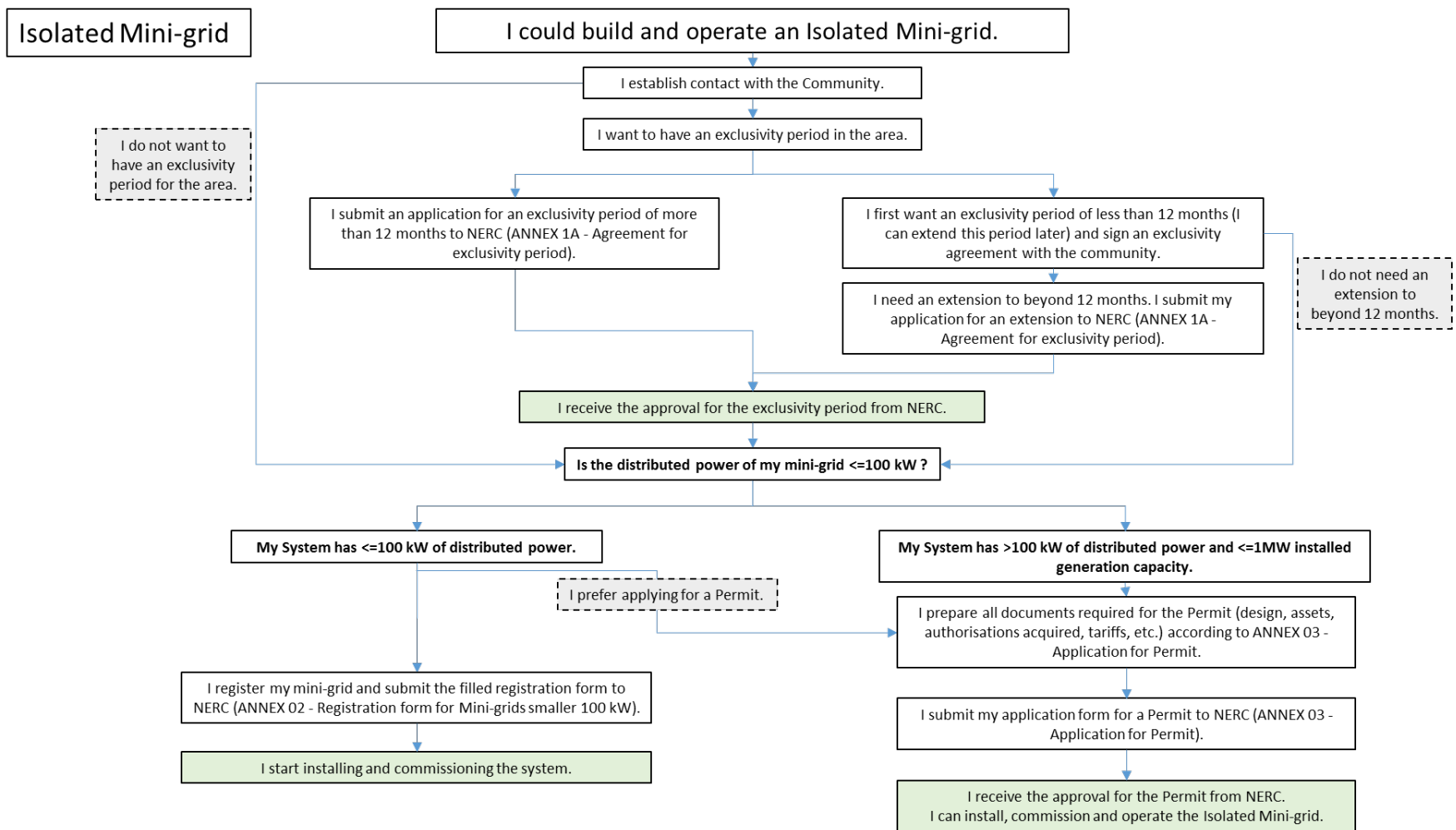


Figure 2: Isolated Mini-Grid

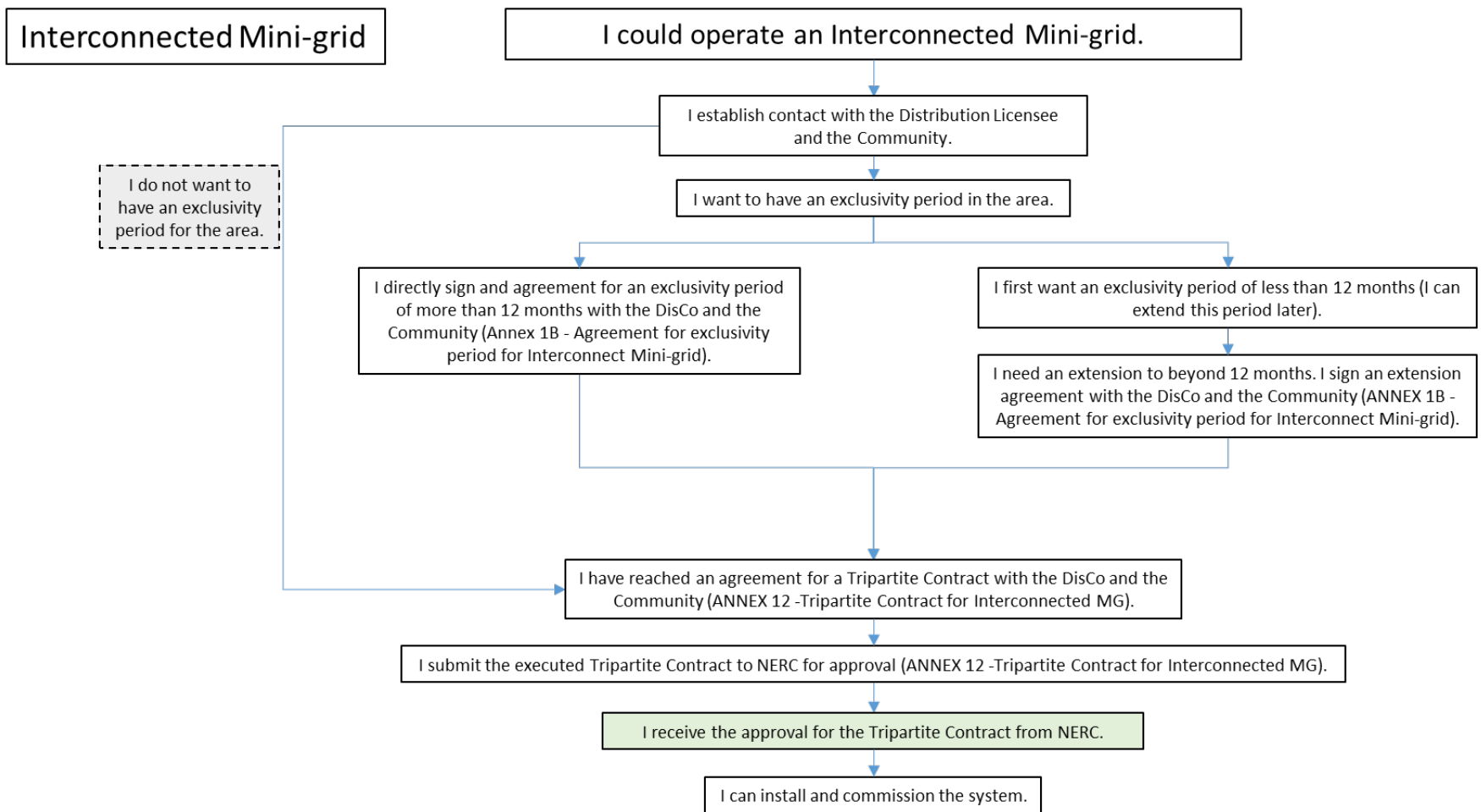


Figure 3: Interconnected Mini-Grid

## ANNEX 6

### **HEALTH AND SAFETY GUIDELINES (INCLUDING RECOMMENDATIONS ON ENVIRONMENTAL PROTECTION)**

#### **1. GENERAL GUIDELINES AND REQUIREMENTS**

##### **1.1 ENVIRONMENTAL PROTECTION RECOMMENDATIONS**

Set out below are general requirements to be adhered to by the Mini-Grid Operator to mitigate any adverse effect and impact of its operations and activities on the environment.

For every Mini-Grid Project, prior consideration and all efforts shall be made, at an early stage, to identify the environmental effect and impact of the proposed project.

Where the proposed project is likely to affect the environment because of its extent, nature or the location, an Environmental Impact Assessment (EIA) shall be undertaken as applicable.

##### **1.2 HEALTH AND SAFETY GUIDELINES**

Set out below are general requirements to be adhered to by the Mini-Grid Operator in order to mitigate any adverse effect and impact of its operations and activities on the health and safety of staff members, customers and other individuals.

The Mini-Grid Operator may decide, during the validity of the Permit, to maintain the usual insurance policies recommended for Mini-Grid operations. Not having the right insurance policies in place involves considerable risks for the operations of Mini-Grids.

## 2. SPECIFIC GUIDELINES AND REQUIREMENTS FOR TYPES OF EQUIPMENT

The table below provides specific requirements regarding the different types of equipment that are components in Mini-Grids

TYPE OF EQUIPMENT	PHASE IN THE PROJECT	RECOMMENDED LINK TO ENVIRONMENTAL PROTECTION	HEALTH AND SAFETY
Battery VRLA	Transport & Storage		- Wear protection gear: shoes, helm, goggles and gloves.
	Installation		- Must only be installed by professional electricians.
	Operation	<ul style="list-style-type: none"> <li>- Keep battery cells clean and clean with dry cloth.</li> <li>- Do not overcharge the batteries to avoid explosive hydrogen production.</li> <li>- Must be a safe working environment.</li> <li>- A comprehensive occupational safety program, including training and site orientation.</li> <li>- Competent persons to effectively respond to emergency events.</li> <li>- Keep a record of all occupational injuries and illnesses and divulge these records to NERC or body on demand for examination and analysis.</li> <li>- Functional risk management process.</li> <li>- Should have comprehensive insurance policy to adequately cover facilities, employees and third parties.</li> </ul>	
	Decommissioning & Disposal		<ul style="list-style-type: none"> <li>- See installation and commissioning.</li> <li>- Batteries must be collected at state government. Collection point after end of lifetime.</li> </ul>
Battery Lead-Acid Vented	Transport & Storage		- Wear protection gear: shoes, helm, goggles and gloves.
	Installation	- Transport battery in upright position and/or transport acid in separate containers.	<ul style="list-style-type: none"> <li>- Must only be installed by professional electricians.</li> <li>- Wear acid-proof protection apron.</li> <li>- During the filling, follow the manufacturers'</li> </ul>

TYPE OF EQUIPMENT	PHASE IN THE PROJECT	RECOMMENDED LINK TO ENVIRONMENTAL PROTECTION	HEALTH AND SAFETY
		<ul style="list-style-type: none"> <li>- Acid is a hazardous product: follow the transportation rules for hazardous products.</li> </ul>	<ul style="list-style-type: none"> <li>recommendations.</li> <li>- Install only in rooms with adequate ventilation.</li> <li>- Avoid any electronics or electric equipment that can generate sparks in the same room.</li> </ul>
	Operation	<ul style="list-style-type: none"> <li>- Keep battery cells clean.</li> <li>- Do not overcharge the batteries to avoid explosive hydrogen production.</li> <li>- Must be a safe working environment.</li> <li>- A comprehensive occupational safety program, including training and site orientation.</li> <li>- Competent persons to effectively respond to emergency events.</li> <li>- Keep a record of all occupational injuries and illnesses and divulge these records to NERC or body on demand for examination and analysis.</li> <li>- Functional risk management process.</li> </ul>	
	Decommissioning & Disposal		<ul style="list-style-type: none"> <li>- See installation and commissioning.</li> <li>- Batteries must be collected at state government collection point after end of lifetime.</li> <li>- Collect acid separately in appropriate canisters prepared for storage and transport</li> </ul>
Lithium Battery	Installation & Operations		<ul style="list-style-type: none"> <li>- Do not discharge completely and do not overcharge (risk of explosion).</li> <li>- Keep away from solar radiation.</li> </ul>
Diesel Generator	Transport & Storage		<ul style="list-style-type: none"> <li>- Use lifting equipment.</li> <li>- Fuel transport is dangerous and should follow the applicable transport Regulation.</li> </ul>
	Installation		<ul style="list-style-type: none"> <li>- Must only be installed by professional electricians.</li> </ul>
	Operation	<ul style="list-style-type: none"> <li>- Used oil and oil filters shall be collected and disposed of in an environmental</li> </ul>	<ul style="list-style-type: none"> <li>- Must only be operated by trained electricians.</li> <li>- Must be a safe working environment.</li> </ul>

TYPE OF EQUIPMENT	PHASE IN THE PROJECT	RECOMMENDED LINK TO ENVIRONMENTAL PROTECTION	HEALTH AND SAFETY
		<p>friendly way.</p> <ul style="list-style-type: none"> <li>- Select site to meet the following requirements: Noise Emission should be limited to an extent acceptable by the neighbours.</li> </ul>	<ul style="list-style-type: none"> <li>- A comprehensive occupational safety program, including training and site orientation.</li> <li>- Testing and monitoring of air quality is strictly carried out where employees may be exposed to harmful substances, including worker respiratory protection and an emergency response plan.</li> <li>- Competent persons to effectively respond to emergency events.</li> <li>- Keep a record of all occupational injuries and illnesses and divulge these records to NERC or body on demand for examination and analysis.</li> <li>- Functional risk management process. Should have comprehensive insurance policy to adequately cover facilities, employees and third parties.</li> </ul>
	Decommissioning & Disposal	<ul style="list-style-type: none"> <li>- Used oil and oil filters shall be collected and disposed of in an environmental friendly way.</li> </ul>	
Solar PV	Operation		<ul style="list-style-type: none"> <li>- Wear safety gear.</li> <li>- Must be a safe working environment.</li> <li>- A comprehensive occupational safety program, including training and site orientation.</li> <li>- Competent persons to effectively respond to emergency events.</li> <li>- Keep a record of all occupational injuries and illnesses and divulge these records to NERC or body on demand for examination and analysis.</li> </ul>

TYPE OF EQUIPMENT	PHASE IN THE PROJECT	RECOMMENDED LINK TO ENVIRONMENTAL PROTECTION	HEALTH AND SAFETY
			<ul style="list-style-type: none"> <li>- Functional risk management process.</li> <li>- Should have comprehensive insurance policy to adequately cover facilities, employees and third parties.</li> </ul>
	Decommissioning & Disposal	<ul style="list-style-type: none"> <li>- For CdTe modules: Hazardous Waste must be collected and brought to a recycling centre.</li> <li>- Consult manufacturer's guidelines or where necessary the manufacturer</li> </ul>	
Wind Turbine < 50 kW	Transport & Storage		<ul style="list-style-type: none"> <li>- Due to the weight of equipment, use appropriate lifting and installation equipment (e.g. crane).</li> </ul>
	Installation	<p>Select site to meet the following requirements:</p> <ul style="list-style-type: none"> <li>- Noise Emission should not be limited to an extent acceptable by the neighbours.</li> </ul> <p>Shading shall not be more than acceptable by the neighbours</p>	<ul style="list-style-type: none"> <li>- Due to the weight of equipment, use appropriate lifting and installation equipment (e.g. crane).</li> <li>- By selecting the site, take into consideration the ground characteristics for integrity of the turbine</li> </ul>
	Operation	<ul style="list-style-type: none"> <li>- Switch off wind turbine during main flying hours of bats.</li> <li>- Used oil and oil filters shall be collected and disposed of in an environmental friendly way.</li> </ul>	<ul style="list-style-type: none"> <li>- Maintain moving parts regularly according to the requirements of the manufacturers.</li> <li>- Must be a safe working environment.</li> <li>- A comprehensive occupational safety program, including training and site orientation.</li> <li>- Competent persons to effectively respond to emergency events.</li> <li>- Keep a record of all occupational injuries and</li> </ul>

TYPE OF EQUIPMENT	PHASE IN THE PROJECT	RECOMMENDED LINK TO ENVIRONMENTAL PROTECTION	HEALTH AND SAFETY
			<p>illnesses and divulge these records to NERC or body on demand for examination and analysis.</p> <ul style="list-style-type: none"> <li>- Functional risk management process.</li> <li>- Should have comprehensive insurance policy to adequately cover facilities, employees and third parties.</li> </ul>
	Decommissioning & Disposal	-	<ul style="list-style-type: none"> <li>- Due to the weight of equipment, use appropriate lifting and installation equipment (e.g. crane).</li> </ul>
Hydro < 50 kW	Transport & Storage		<ul style="list-style-type: none"> <li>- Due to the weight of equipment, use appropriate lifting and installation equipment (e.g. crane).</li> </ul>
	Installation	<ul style="list-style-type: none"> <li>- Comply with the water rights and related legislation.</li> </ul>	<ul style="list-style-type: none"> <li>- Moving parts of machinery must be designed and constructed in such a way as to prevent risks of contact which could lead to accidents or must, where risks persist, be fitted with guards or protective devices</li> </ul>
	Decommissioning & Disposal	<ul style="list-style-type: none"> <li>- Comply with the water rights and related legislation.</li> <li>- Used oil and oil filters shall be collected and disposed off in an environmental friendly way.</li> </ul>	See Transport & Storage
Biomass	Transport & Storage	<ul style="list-style-type: none"> <li>- Sewage from biomass shall be kept from entering the ground water</li> <li>- Biogas shall be stored in a way to minimize losses to the atmosphere (reduce greenhouse gas emission)</li> </ul>	<ul style="list-style-type: none"> <li>- Depending on the type of biomass, the biomass may carry the risk of fire. Therefore, it shall be stored in a safe fire protected place</li> </ul>



TYPE OF EQUIPMENT	PHASE IN THE PROJECT	RECOMMENDED LINK TO ENVIRONMENTAL PROTECTION	HEALTH AND SAFETY
	Installation		<ul style="list-style-type: none"> <li>- Due to the weight of equipment, use appropriate lifting and installation equipment (e.g. crane).</li> </ul>
	Operation	<ul style="list-style-type: none"> <li>- Use appropriate Fire protection.</li> <li>- Must be a safe working environment.</li> <li>- A comprehensive occupational safety program, including training and site orientation.</li> <li>- Competent persons to effectively respond to emergency events.</li> <li>- Keep a record of all occupational injuries and illnesses and divulge these records to NERC or body on demand for examination and analysis.</li> <li>- Functional risk management process.</li> <li>- Should have comprehensive insurance policy to adequately cover facilities, employees and third parties.</li> </ul>	
	Decommissioning & Disposal	<ul style="list-style-type: none"> <li>- Any lubrication oil needs to be disposed off in an environmentally friendly manner</li> <li>- The flow of river as it has been before installation of the equipment has to be re-established</li> </ul>	<p>Due to the weight of equipment, use appropriate lifting and installation equipment (e.g. crane).</p>
Inverters, charge controller and other electronic equipment	Installation		<p>Must only be installed by professional electricians.</p>
	Operation		<ul style="list-style-type: none"> <li>- Must be a safe working environment.</li> <li>- A comprehensive occupational safety program, including training and site orientation.</li> <li>- Competent persons to effectively respond to emergency events.</li> <li>- Keep a record of all occupational injuries and illnesses and divulge these records to NERC or body on demand for examination and analysis.</li> </ul>

TYPE OF EQUIPMENT	PHASE IN THE PROJECT	RECOMMENDED LINK TO ENVIRONMENTAL PROTECTION	HEALTH AND SAFETY
			<ul style="list-style-type: none"> <li>- Functional risk management process.</li> <li>- Should have comprehensive insurance policy to adequately cover facilities, employees and third parties.</li> </ul>
	Decommissioning & Disposal	<ul style="list-style-type: none"> <li>- Must be disposed in an environmental friendly way. Waste must be collected and brought to a recycling centre.</li> </ul>	
Switch Gear and Distribution Box Conductors Transformers	Transport & Storage		<ul style="list-style-type: none"> <li>- Due to the weight of equipment, use appropriate lifting and installation equipment (e.g. crane).</li> </ul>
	Installation	<ul style="list-style-type: none"> <li>- Select a site where the risk of flooding is low.</li> <li>- Use fire proved material.</li> </ul>	<ul style="list-style-type: none"> <li>- Installation only by an electrician</li> <li>- Wear all applicable safety gear like safety shoes, safety gloves</li> <li>- Comply with the NERC Distribution Code.</li> </ul>
	Operation		<ul style="list-style-type: none"> <li>- Must be a safe working environment.</li> <li>- Wear appropriate safety gear</li> <li>- Must only be operated by trained electricians.</li> <li>- Comply with the NERC Distribution Code.</li> <li>- A comprehensive occupational safety program, including training and site orientation.</li> <li>- Competent persons to effectively respond to emergency events.</li> <li>- Keep a record of all occupational injuries and illnesses and divulge these records to NERC or body on demand for examination and analysis.</li> <li>- Functional risk management process.</li> </ul>

TYPE OF EQUIPMENT	PHASE IN THE PROJECT	RECOMMENDED LINK TO ENVIRONMENTAL PROTECTION	HEALTH AND SAFETY
			<ul style="list-style-type: none"> <li>- Should have comprehensive insurance policy to adequately cover facilities, employees and third parties.</li> </ul>
	Decommissioning & Disposal	<ul style="list-style-type: none"> <li>- The foundations must be removed and the place recover its original status.</li> <li>- Transformer may contain hazardous and polluting material which has to be brought to a collection point where it can be treated.</li> </ul>	<ul style="list-style-type: none"> <li>- Due to the weight of equipment, use appropriate lifting and installation equipment (e.g. crane).</li> </ul>

I, \_\_\_\_\_ (name), representative of

Mini-Grid Developer/Operator name: \_\_\_\_\_

Mini-Grid Developer/Operator address: \_\_\_\_\_

Company registration number: \_\_\_\_\_

am applying for a Permit and therefore warrant that I will comply with the above-mentioned environmental, health and safety guidelines.

In the event of any failure to comply with these guidelines, I am conscious that the competent authorities can impose fines according to the gravity of the infraction.

**Date:** \_\_\_\_\_

\_\_\_\_\_

**COMPANY REPRESENTATIVE**

## ANNEX 7

### TECHNICAL REQUIREMENTS FOR REGISTERED MINI-GRIDS

While Mini-Grids of up to 100 kW are excluded from regulation, it has been observed that for such type of systems mistakes in sizing and design of technical components have caused accidents and poor performance of systems. This applies particularly to developers and operators of small Mini-Grids, as these are often not aware of the existence of or cannot access technical standards and guidelines. They also often lack or cannot access the necessary practical experience/training. Affordability of systems also generally represents a reason for the non-compliance of small Mini-Grids to basic technical standards. Therefore, this Annex 7 summarizes some basic design criteria in terms of “rules of thumb” that should be used by small Mini-Grid Developers and Registered Mini-Grid Operators with low voltage mini-grids wherever the national and international technical standards are not at hand or cannot be understood, in order to improve the safety and reliability of their systems.

In all cases, NERC requires the application of the relevant technical standards and guidelines as set; for example in NERC’s Distribution Code as well as the respective manufacturers’ rules. Where this is not possible, the following requirements may be applied. As these requirements are scientifically not 100% correct, but are just an indication, NERC does not assume any liability for failures or accidents resulting from the application of the rules mentioned below.

#### **1 DIMENSIONING OF CABLES**

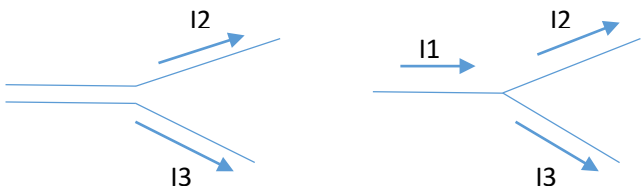
There are three design criteria for cable and conductor dimensioning:

- The heat that is produced by the current flowing through the resistance of the cable must be dissipated without melting the insulation and without causing fire.
- The voltage drops along the cable must result in a voltage at the last customer which is high enough for appliances to work. For most appliances this is the case for +-10% of the nominal grid voltage.
- The resistance of the cable must be low enough to allow for a short circuit current at all customer connections allowing circuit breakers or fuses to trip reliably. This, together with aspect 1 protects from fire and electrocution from blank cables with molten insulation.

In small Mini-Grid systems, distribution of electricity is sometimes done on a house-to-house wiring basis. The use of such type of distribution system is not recommended for safety reasons. However, where Distribution Code compliant distribution grids are not financially viable and house-to-house wiring or similar approaches are required for financial feasibility, the following dimensioning of cables can be used for alternating current (AC) and direct current

(DC) electricity supplies together with circuit breakers of B10 characteristic (see chapter “Circuit breakers and fuses” below) typical for a household or shop at the end customer connection. The max current values are meant to be continuous currents for 30 minutes or more on a specific line. In three phase systems, the current indicates the current over one of the line-conductors in the three phase system.

In radial distribution systems, currents of lines which split into more lines to connect more customers are larger than the currents in the split lines. In order to design the cross sections of lines that split



Assume that line 2 and line 3 are connected to the source individually and identify the right cross-section of line 2 and line 3 from the tables below.

Then add the cross-sections of line 2 and line 3 to calculate the proposed cross-section for line 1.

**Cross-sections of conductors in copper cables**

The following table indicates required conductor cross-sections for certain currents and cable lengths of a copper cable assuming a B10 circuit breaker at the last customer’s connection and a maximum of 10% voltage drop at the customer’s connection. Below 0.75 mm<sup>2</sup> of conductor cross-section, the mechanical strength of the cable is rather low and the cable may break easily causing the risk of electrocution and fire. Therefore, it is not recommended to use these low diameters. As in very small Mini-Grid systems, these small cross sections are sometimes the only economically feasible option, they are indicated in the table below anyway but marked red. Special attention should be given to safe installation of these thin cables.

Max continuous current (for 30 min or more)	Up to 100 m distance between source and load	Up to 200 m distance between source and load	Up to 300 m distance between source and load	Up to 400 m distance between source and load
<1.5 A rms	0.15 mm <sup>2</sup>	0.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>
<5 A rms	0.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>

<10 A rms	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>	6 mm <sup>2</sup>
<16 A rms	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>	6 mm <sup>2</sup>	10 mm <sup>2</sup>
<25 A rms	4 mm <sup>2</sup>	6 mm <sup>2</sup>	10 mm <sup>2</sup>	16 mm <sup>2</sup>
<40 A rms	6 mm <sup>2</sup>	10 mm <sup>2</sup>	16 mm <sup>2</sup>	25 mm <sup>2</sup>
<60 A rms	10 mm <sup>2</sup>	16 mm <sup>2</sup>	25 mm <sup>2</sup>	35 mm <sup>2</sup>
<100 A rms	16 mm <sup>2</sup>	25 mm <sup>2</sup>	35 mm <sup>2</sup>	50 mm <sup>2</sup>

It is a requirement to attach cables to guy wires where cables are connected from one house to the other and no fixed attachment to walls can be made. Where cables are moved during operation, flexible cables are required.

### ***Cross sections of conductors in aluminium cables***

The following table indicates required conductor cross-sections for certain currents and cable lengths of a copper cable assuming a B10 circuit breaker at the last customer's connection and a maximum of 10% voltage drop at the customer's connection.

Max continuous current (for 30 min or more)	Up to 100 m distance between source and load	Up to 200 m distance between source and load	Up to 300 m distance between source and load	Up to 400 m distance between source and load
<1.5 A rms	4 mm <sup>2</sup>	6 mm <sup>2</sup>	10 mm <sup>2</sup>	16 mm <sup>2</sup>
<5 A rms	6 mm <sup>2</sup>	10 mm <sup>2</sup>	16 mm <sup>2</sup>	25 mm <sup>2</sup>
<10 A rms	10 mm <sup>2</sup>	16 mm <sup>2</sup>	25 mm <sup>2</sup>	35 mm <sup>2</sup>
<16 A rms	16 mm <sup>2</sup>	25 mm <sup>2</sup>	35 mm <sup>2</sup>	50 mm <sup>2</sup>
<25 A rms	25 mm <sup>2</sup>	35 mm <sup>2</sup>	50 mm <sup>2</sup>	70 mm <sup>2</sup>
<40 A rms	35 mm <sup>2</sup>	50 mm <sup>2</sup>	70 mm <sup>2</sup>	95 mm <sup>2</sup>
<60 A rms	50 mm <sup>2</sup>	70 mm <sup>2</sup>	95 mm <sup>2</sup>	120 mm <sup>2</sup>
<100 A rms	70 mm <sup>2</sup>	95 mm <sup>2</sup>	120 mm <sup>2</sup>	150 mm <sup>2</sup>

Aluminium cables with the dimensions mentioned above may be used without a guy wire carrying the cable. Distance of poles carrying the cables from each other should not be more than 50 m.

## **1 CIRCUIT BREAKERS AND FUSES**

Circuit breakers switch off short circuits and overloads. They protect the lines from getting too hot and therefore prevent fire or electrocution from blank cables with molten insulation.

Circuit breakers have got a rated current and an instantaneous tripping current. If the actual current is larger than the rated current, the circuit breaker will trip with a delay. If the actual

current is larger than the instantaneous tripping current, the circuit breaker will trip immediately within 100 milliseconds.

There are circuit breakers with preferred rated currents of 6A \ 10A \ 13A \ 16A \ 20A \ 25A \ 32A \ 40A \ 50A \ 63A \ 80A \ 100A available on the market. The immediate tripping current is determined by the letter in front of the number indicating the rated current. Breakers can have B characteristic (immediate tripping at 3 to 5 times the rated current) for usual household and shop loads, C characteristic (immediate tripping at 5 to 10 times the rated current) for machines and a larger number of lamps and D characteristic (immediate tripping at 10 to 20 times the rated current) for heavy machines and transformers.

Each connection to the distribution grid should be protected using the smallest circuit breaker possible. Households in rural villages typically need B6, B10 or sometimes B16 circuit breakers single phase. Mills, wood, metal and welding workshops may require three phase C20 or similar.

The line dimensioning in the tables above was prepared for B10 circuit breakers. If the rated current of the circuit breakers is higher or the characteristic of the circuit breaker is C or D cross-sections of cables need to be larger. Please consult an electrician in this case.

Fuses are available in the ratings of 3A \ 5A \ 10A \ 15A \ 20A \ 25A \ 30A \ 45A \ 60A \ 80A \ 100A. The fuse is a slow disconnecter. If the actual current is higher than the rated current for a certain time, the fuse trips. The fuse rating should be the same as the maximum continuous current used for line dimensioning.

## **2 GROUNDING**

Mini-Grids for village electrification are typically TN-C-Systems or TN-C-S-Systems. This means that there needs to be grounding of the PE and N conductor or the combined PEN conductor in order to operate the system safely. Grounding takes place at the generator, in the distribution grid, at the end of each line of the distribution grid and at the customers' buildings.

Depending on the conditions of the ground and the ground water level, different methods of grounding can be applied. In predominantly wet soil, grounding can be performed through ground rods that are driven into the ground. In dry areas, a conductor with a large surface needs to be dug in. After installation of the grounding equipment contact between the conductor and the soil can be established by pouring large amounts of water on the surface to be soaked up by the soil around the grounding material.

The ground resistance should preferably be smaller than 2 Ohm but in any case smaller than 10 Ohm. To measure this resistance value, special measuring equipment is required.



### **3 PROTECTION CLASS**

For protection from electrocution, all electric equipment exposed to a voltage should be covered by a box with adequate protection class. IP 42 or higher numbers should be printed on the boxes containing electrical equipment which are installed outside of buildings and only exposed to rain but no water from below the box. In some cases higher IP classes are required to cater for adequate protection.

### **4 ROTATING MACHINES**

Moving parts of machinery must be designed and constructed in such a way as to prevent risks of contact which could lead to accidents or must, where risks persist, be fitted with guards or protective devices. All necessary steps must be taken to prevent accidental blockage of moving parts involved in the work. In cases where, despite the precautions taken, a blockage is likely to occur, the necessary specific protective devices and tools must, when appropriate, be provided to enable the equipment to be safely unblocked. The instructions and, where possible, a sign on the machinery shall identify these specific protective devices and how they are to be used.

### **5 FREQUENCY AND VOLTAGE**

For quality and safety reasons, the generator should be operated to maintain a stable voltage and frequency at the electricity consumer. The voltage shall not deviate more than  $\pm 10\%$  from its nominal value at the consumer's site. The grid frequency shall not vary more than 20% from its nominal value.

## **ANNEX 8**

### **RECOMMENDATIONS FOR CALCULATION OF USAGE CHARGE OF INTERCONNECTED MINI-GRIDS**

The Distribution Licencee and the Mini-Grid Developer or Operator are free to define any usage charge for distribution grids of the Licencee as they deem adequate. This document provides some guidance in finding an agreement which is fair and acceptable for both parties.

Interconnected Mini-Grids are meant to be installed where the Licencee cannot supply reliable electricity to customers for economic or technical reasons.

From a Licencee's perspective, often, the operation of some parts of the Distribution Licencee's network is unprofitable or has got a very low profitability to the Distribution Licencee under the given regulatory constraints. This is because some distribution network areas, particularly those located in sparsely populated rural remote areas, require high efforts related to collection of money from customers and reduction of non-technical losses. Good personal relationships with the community and each electricity customer may solve this problem. However, the cost for such an engagement outweighs the revenue collected from the same area.

In contrast to Distribution Licencees, Mini-Grid Operators supplying electricity to a smaller number of customers (due to the limitation in size of Mini-Grids) typically have got closer relationships with their customers and therefore have got the opportunity to run more community oriented customer management and demand development approaches than Distribution Licencees. This enables the Mini-Grid Operator to run the Mini-Grid profitably if the tariffs are high enough to cover its additional cost. This right for higher tariffs is provided in the Mini-Grid Regulation, 2016 under the condition that the community and the Commission approve the tariff requested by the Mini-Grid Operator.

For the Distribution Licencee, cooperation with an Interconnected Mini-Grid Operator provides the opportunity to fulfil its mandate and provide access to reliable electricity within its Licencee area without suffering financial losses. The Interconnected Mini-Grid provides the opportunity for Distribution Licencees to bridge a certain duration of time until electricity from the main grid can be supplied to the area reliably. Within this period of time, the distribution network infrastructure is maintained by the Interconnected Mini-Grid Operator. Alternatively, it can be maintained by the Distribution Licencee while the costs for the maintenance of the distribution network infrastructure are covered by the usage charge to be paid by the Mini-Grid Operator. Ideally, the Distribution Licencee takes over electricity supply after the period handled by the Mini-Grid Operator has expired with the distribution network in a good technical condition and with customers who are used to pay for electricity.

From a Mini-Grid Operator's perspective, underserved areas already covered by distribution networks often enable Mini-Grid Operators to increase electricity sales faster than in areas

which are completely off-grid. Therefore, Interconnected Mini-Grids may become profitable more quickly than Isolated Mini-Grids. By having the opportunity to establish Interconnected Mini-Grids, the Interconnected Mini-Grid Operator may select areas with good demand potential and well organized communities.

From a community's perspective, unreliable electricity supply hinders economic uptake of an area and therefore is not acceptable to the community in the long run. In most cases, even a considerably higher electricity tariff combined with reliable electricity supply is better for the local economy than a low tariff with unreliable electricity. However, from a community's perspective, the usage charge for the distribution network to be paid by the Mini-Grid Operator to the Distribution Licencee shall be low enough to provide sufficient incentive to the Distribution Licencee to re-connect the Mini-Grid to the distribution network after the contract with the Mini-Grid Operator has expired.

Therefore, the usage charge for the distribution network shall cater for both, the reduction of financial losses on the Distribution Licencee's side on the one hand and the requirement for low cost distribution grids in high electricity demand areas of Mini-Grid Operators on the other hand. Accordingly, the basis for the calculation shall be the lost profit of the Distribution Licencee from electricity sales within the part of the distribution network hired out to the Mini-Grid Operator. The usage charge shall be calculated based on the average profit generated by the Distribution Licencee within the last 12 months plus any operation and maintenance costs that are not transferred from the Distribution Licencee to the Mini-grid Operator. As mentioned before, in the Tripartite Agreement, the Distribution Licencee, the Mini-Grid Operator and the community are free to define any usage charge they can agree on considering or not considering the above mentioned clause. In case the Distribution Licencee's assets to be hired out to the Mini-Grid Operator are loss-making, the parties shall consider a hiring arrangement without any compensation at least for a certain period of time (e.g. 5 years).

**ANNEX 9**  
**COMPLAINTS PROCEDURE GUIDELINES**

Pursuant to Section 24 of the NERC Mini-Grid Regulations, set out below are the Complaints Procedure Guidelines for all Customer complaints.

**1. Definitions**

**“Community”** means a group of people within the same geographic location organized under a local leadership structure or a legally recognized corporate entity and in both cases capable of entering into contracts and can sue and be sued.

**“Community Power Committee”** means a committee established by a Community to coordinate all electricity customers, to address enquiries and Complaints.

**“Complainant”** means:

- (i) A customer; or
- (ii) One or more customers where there are numerous customers having the same interest; or in the case of a dead customer, his or her legal heirs or representatives making or continuing a Complaint. Provided that the contract with the customer also includes his or her legal heirs and representatives

**“Complaint”** means any allegation in writing made by a Complainant against a Mini-Grid Operator or a Registered Mini-Grid Operator.

**“Customer Complaints Unit”** means the dispute resolution body to be set up by a Mini-Grid Operator.

**“Distribution Licencee”** means the holder of a Distribution Licence who operates a Distribution Network that is connected to the transmission system operated by the system operation Licencee.

**“Forum”** means the forum for customer Complaints established by the Commission under the NERC Customer Complaints Handling Standards and Procedures.

**“Government”** means the Federal, State or Local Government of Nigeria.

**“Mini-Grid Operator”** means any entity who operates an Isolated Mini-Grid and is registered or holds a Permit or who operates an Interconnected Mini-Grid under a Tripartite Contract;

## **2. Customer Complaints Units**

- 2.1 Every Mini-Grid Operator shall establish a Customer Complaints Unit within its business premises. A Registered Mini-Grid Operator may also establish a Customer Complaints Unit. The Units shall have the responsibility of receiving and resolving Complaints.
- 2.2 Whilst every Mini-Grid Operator is required to establish at least one Customer Complaints Unit, it may choose to establish more than one based in different locations within its operational area.
- 2.3 Each Customer Complaints Unit shall be headed by a senior officer of the Mini-Grid Operator designated as the Customer Complaints Officer and staffed by employees of the Mini-Grid Operator. Overall responsibility for ensuring that Complaints are satisfactorily resolved and that lessons learnt from these Complaints are incorporated into the operational procedures of the Mini-Grid Operator, however, rests with the Mini-Grid Operator's Chief Executive Officer.

## **3. Procedure for Filing a Complaint at the Customer Complaints Unit**

- 3.1 All Complaints must be lodged firstly, in writing, with the Customer Complaints Unit of the Mini-Grid Operator.
- 3.2 A Complaint may also be lodged via e-mail to the nearest Customer Complaint Unit's email address, which shall be published on the Mini-Grid Operator's website.
- 3.3 For non-literate Complainants, the Complaint shall be made to the Customer Complaints Officer who shall record it and insert a statement indicating that the Complaint was recorded by him and that it was understood by such Complaint. The Complainant would be required to sign or apply a thumb print to such a statement to confirm his or her understanding.
- 3.4 Complaints may also be lodged via a Community Power Committee which shall be directed to the Customer Complaints Unit of the Mini-Grid Operator.

#### **4. Resolution of a Complaint**

- 4.1 All Complaints shall be resolved, and the customer notified expeditiously, but in any case within 15 working days of the written Complaints being received by the Customer Complaints Unit. Where additional time is required, the customer must be notified within 15 working days of receipt of the Complaint of the action(s) being taken and every 7 working days until the Complaint is resolved.
- 4.2 Any Complainant who is dissatisfied with the outcome of the handling of his or her Complaint(s) by the Customer Complaints Unit or who encounters delay/failure in the handling of such Complaint(s) may refer his Complaint(s) to the Forum.
- 4.3 Where the Mini-Grid Operator and the Complainant are unable to agree on a resolution to a Complaint, either party may refer the Complaint to the Forum.

#### **5. Procedure for Filing Complaints to the Forum**

- 5.1 Every Complaint must be filed in writing by the Complainant and addressed to the Chairperson of the Forum.
- 5.2 A Complaint may also be lodged by e-mail to the Forum's email address (which shall be published) or may also be forwarded in writing.

#### **6. Jurisdiction of the Forum**

- 6.1 The Forum shall have jurisdiction to entertain Complaints within the entire operational area of the Mini-Grid Operator.

#### **7. Duty of the Mini-Grid Operator to Notify**

Each Mini-Grid Operator shall notify and bring to the notice of its customers by public notice, the existence and details of the Customer Complaints Unit and the Forum for hearing customers' Complaints.

## **8. Procedure for Handling Complaints by the Forum**

- 8.1 On receipt of a Complaint, the Secretary of the Forum shall endorse the Complaint and date it. Each Complaint received shall be registered and serially numbered.
- 8.2 The secretary of the Forum shall send an acknowledgement to the Complaint within 3 working days of receipt of the Complaint.
- 8.3 Where a registered consumer files a Complaint on behalf of a customer, it shall provide the customer's written authority to act on his or her behalf.
- 8.4 On receipt of a Complaint, the Forum may hear or reject a Complaint.
- 8.5 The admissibility of a Complaint for hearing shall be decided within ten working days from the date on which the Complaint was received.
- 8.6 Where a Complaint is rejected, the Complainant shall be informed in writing within 5 working days of the decision to reject the Complaint giving reasons why the Complaint was rejected and providing the Complainant a further opportunity to explain his or her case. The Complainant shall also be advised of his or her right to appeal the decision of the Forum to the Commission.
- 8.7 Every Complaint shall be heard as expeditiously as possible and a decision shall be made within a maximum period of one month from the date of receipt of a Complaint by the Forum.
- 8.8 No adjustment of hearing shall be granted by the Forum unless sufficient cause is shown and the reasons for granting the adjournment have been recorded by the Forum;
- 8.9 In the event that a Complaint is not concluded within the maximum period specified above, the Complainant shall be informed in writing of the reasons for the delay; and
- 8.10 Every proceeding shall be conducted by the Chairperson of the Forum and the members sitting together; provided that where a member, for any reason, is unable to

be present at the entire proceeding, the Chairperson and the other members shall conclude such a proceeding bearing in mind the requirement for a quorum.

## **9. Decisions of the Forum**

- 9.1 All decisions of the Forum shall be taken by a majority of the members present and in the event of a tie, the Chairperson shall have the casting vote.
- 9.2 All decisions made by the Forum shall be in writing and signed by its Chairperson and the members that conducted the proceedings.
- 9.3 The proceedings and decisions of the Forum along with the time stipulated for compliance shall be recorded and communicated to the Complainant and the Mini-Grid Operator.
- 9.4 The Mini-Grid Operator shall implement the decisions of the Forum within the time specified in the directives of the Forum. The Mini-Grid Operator shall also report its compliance with the directives of the Forum, or the reasons for any delay in complying with the directives of the Forum, to the Forum within five working days from the date of such directives.

## **10. Appeal**

- 10.1A Complainant, Mini-Grid Operator aggrieved by a decision made by the Forum may seek an appeal against such a decision to the Commission within a period of ten working days from the date of the decision, in such form and manner as may be directed by the Commission.
- 10.2The Commission may entertain an appeal after the expiry of the said period of ten working days if it is satisfied that there was sufficient cause for not filing the appeal within that period.
- 10.3The Commission shall not entertain an appeal by a Complainant who, in terms of a decision by a Forum, is required to pay an amount to the Mini-Grid Operator unless that amount has been paid.



## **ANNEX 10**

### **DISPUTE RESOLUTION MECHANISM**

Pursuant to Section 25 of the NERC Mini-Grid Regulations, set out below is the Dispute Resolution Mechanism for all disputes arising from or in connection with a Mini-Grid.

#### **1. Definitions**

**“Act”** means the Electric Power Sector Reform Act, 2005

**“Commission”** means the Nigerian Electricity Regulatory Commission.

**“Community”** means a group of people within the same geographic location organized under a local leadership structure or a legally recognised corporate entity and in both cases capable of entering into contracts and can sue and be sued.

**“Connected Community”** means a Community connected to the distribution network of a Distribution Licencee.

**“Dispute Resolution Counsellor”** or **“DRC”** means the individual appointed by the Commission to that office pursuant to section 3 of this Annex.

**“Dispute Resolution Panel”** or **“DRP”** means the panel established by the Commission pursuant to section 6 of this Annex.

**“Distribution Licencee”** means the holder of a Distribution Licence who operates a Distribution Network that is connected to the transmission system operated by the system operation Licencee.

**“Government”** means the Federal, State or Local Government of Nigeria.

**“Mini-Grid Operator”** means the operator of an Isolated or Interconnected Mini-Grid in form of any entity legally established under Nigerian law including but not limited to private companies, cooperatives, non-governmental organizations and government institutions.

#### **2. Purpose**

Disputes arising between a Mini-Grid Operator; a Distribution Licencee; a Community; or Connected Community, as applicable in connection with a Mini-Grid that are not resolved by the Parties and have been referred by any of the Parties to the Commission, shall be resolved in line with the dispute resolution mechanism provided below in this Annex.

#### **3. The Dispute Resolution Counsellor**

3.1 The Commission shall appoint a Dispute Resolution Counsellor (“DRC”) who shall have the following powers and duties:

- (a) administering and ensuring effective operation of the dispute resolution provisions of this Regulation;
- (b) specifying the format for notices of dispute and the response thereto;
- (c) nomination of members of the Dispute Resolution Panel who shall be appointed by the Commission;
- (d) assigning members of the Dispute Resolution Panel to mediate, conciliate, arbitrate or otherwise resolve Disputes; and
- (e) facilitating the resolution of disputes.

#### **4. Qualification of Dispute Resolution Counsellor**

4.1 No person shall be appointed by the Commission as the DRC unless that person:

4.1.1 has experience or professional qualifications as described in section 34 of the Act;

4.1.2 has a detailed understanding and experience of dispute resolution practice and procedures beyond civil litigation before the courts, including mediation and arbitration;

4.1.3 has an understanding of the Nigerian electricity industry

4.1.4 or his spouse or relative is not a director, officer, employee or agent of a Distribution Licencee, a Mini-Grid Operator;

4.1.5 or his spouse or relative has no direct or indirect legal or beneficial interest in, or commercial affiliation with:

- i. a Distribution Licencee or an affiliate of a Distribution Licencee;
- ii. a Mini-Grid Operator or an affiliate of a Mini-Grid Operator;
- iii. a Community or an affiliate of a Community; or
- iv. a Connected Community or an affiliate of a Connected Community.

4.1.6 is not an employee of the Government of Nigeria; or

4.1.7 is not or has not been a member of the Commission.

#### **5. Resolution of disputes by the Dispute Resolution Counsellor**

5.1 All matters arising between a Mini Grid Operator/; a Distribution Licencee; a Community; or Connected Community, as applicable, connected with a Mini-Grid which are not resolved by the parties or under the Complaints Procedure Guidelines in Annex 9 of the Mini-Grid Regulations, shall be directed to the Commission, after which the Commission shall assign the matter to the DRC who shall take all reasonable and necessary steps to resolve the matter within a period of 21 days.

5.2 The DRC shall act impartially and shall not favour any party to a dispute directly or indirectly; and the outcome of the resolution by the DRC shall be legally binding on the parties.

5.3 Where the parties are unable to resolve a matter through the DRC, the DRC may refer all or part of the issues arising for determination in a proceeding by the Dispute Resolution Panel (“DRP”).

## **6. The Dispute Resolution Panel**

6.1 The Commission shall constitute the DRP which shall be responsible for arbitrating or otherwise resolving disputes between Mini-Grid Operator(s); Distribution Licencees; a Community; or Connected Community, and where the DRC is unable to resolve such disputes.

6.2 Each member of the DRP shall act impartially and shall not favor any party to a dispute directly or indirectly.

## **7. Membership of the Dispute Resolution Panel**

7.1 The DRP will consist of at least three (3) members with the same qualifications as a Dispute Resolution Counsellor in section [4] above.

7.2 No person shall be appointed by the Commission as a member of the DRP unless that person:

7.2.1 has a detailed understanding and experience of dispute resolution practice and procedures beyond civil litigation before the courts, including mediation and arbitration;

7.2.2 has an understanding of the Nigerian electricity industry;

7.2.3 is not, and does not have a spouse or relative that is, a director, officer, employee or agent of:

- i. a Distribution Licencee or an affiliate of a Distribution Licencee;
- ii. a Mini-Grid Operator or an affiliate of a Mini-Grid Operator;
- iii. a Community or an affiliate of a Community; or
- iv. a Connected Community or an affiliate of a Connected Community.

## **8. Resolution of disputes by the Dispute Resolution Panel**

8.1 The DRP shall resolve disputes in accordance with the following procedure, which shall be construed liberally to secure the most expeditious, just and least expensive determination on its merits, of every proceeding conducted:

8.1.1 The DRP shall examine and acquaint itself with the details of the dispute and procure such other information it may require for the purpose of settling the dispute.

8.1.2 The Parties may appear in person before the DRP and/or may have legal representation.

8.1.3 After the DRP has examined the dispute and heard the parties, it shall submit its terms of settlement to the parties.

8.1.4 The DRP may, on the recommendation of any member resolving a dispute, impose such penalties, make such other order or issue such directives as may be deemed appropriate.

8.2 The decisions of the DRP shall be legally binding on the parties.

## **9. Remuneration of members of Dispute Resolution Panel**

9.1 The members of the DRP shall be entitled to a fee for any arbitration or dispute resolution procedure conducted by them.

9.2 The Commission shall be responsible for paying any such fee; and the fee shall be payable at the rates specified by the Commission from time to time.

## **10. Disputes between a Mini-Grid Operator/Distribution Licencee/Community/Connected Community and the Commission**

10.1 Disputes between Mini-Grid Operators /Distribution Licencee/Community/Connected Community and the Commission with respect to a Mini-Grid shall be resolved amicably between the parties.

10.2 Any Mini-Grid Operator, Distribution Licencee, Community or Connected Community that is aggrieved by a decision of the Commission pursuant to these Regulations may, within twenty-one (21) days after the decision is made, apply to the Commission for a review of the decision. The Commission shall in accordance with its rules of proceedings reaffirm, reconsider, vary or rescind its decision before issuing a final Order. Provided, such review or reconsideration shall be completed within sixty (60) days of the date it is requested. If the review or reconsideration is not completed within sixty (60) days, the Commission shall notify the parties of the delay and explain the reason for such delay.

10.3 If any question of law arises from an order or decision of the Commission, the Commission may, on its own initiative or at the request of any party directly affected by such order, reserve that question for the decision of a court of competent jurisdiction in Nigeria.

**11. Escalation of matters to courts of competent jurisdiction.**

11.1 Without Prejudice to Clause 10 above, no party may commence proceedings in any court of competent jurisdiction in Nigeria in relation to the whole or part of a dispute until all other proceedings prescribed in this Annex 10 have been fully exhausted without a resolution.

## ANNEX 11

### TRIPARTITE CONTRACT BETWEEN INTERCONNECTED MINI-GRID OPERATOR, DISTRIBUTION LICENCEE AND CONNECTED COMMUNITY

*Note: This Agreement has been included pursuant to S.9 of the Mini-Grid Regulation 2016. This Agreement is in template format for the Parties to liberally adopt. However, the mandatory provisions must be incorporated by the Parties.*

THIS AGREEMENT is made on this [DATE]

#### **BETWEEN:**

[NAME OF DISCO], a company duly incorporated under the laws of the Federal Republic of Nigeria and having its registered office at [OFFICE ADDRESS] hereinafter called the “DisCo” which expression shall where the context so admits include its successors-in-title.

#### **AND**

[NAME OF MINI-GRID OPERATOR], a company duly incorporated under the laws of the Federal Republic of Nigeria and having its registered office at [OFFICE ADDRESS] hereinafter called the “Mini-Grid Operator” which expression shall where the context so admits include its successors-in-title.

#### **AND**

[NAME] a legally authorised representative of [NAME OF COMMUNITY] connected to the Interconnected Mini-Grid hereinafter called the “Interconnected Community Representative”.

#### **OR**

[NAME] a Company/Association duly incorporated/registered under the laws of the Federal Republic of Nigeria and having its registered office at [OFFICE ADDRESS], acting as the legally authorised representative of [NAME OF COMMUNITY] connected to the Interconnected Mini-Grid hereinafter called the “Interconnected Community”.

In this Agreement, the DisCo, Mini-Grid Operator and Interconnected Community Representative/Interconnected Community are referred to collectively as “Parties” and individually as “Party”.

#### **RECITAL/ BACKGROUND**

- A. The Mini-Grid Operator is in the business of constructing, operating and maintaining mini-grids.
- B. Pursuant to Section 67 of the Electric Power Sector Reform Act 2005 (“EPSRA”), Nigeria Electricity Regulatory Commission (“NERC”) has issued to the DisCo a Distribution Licence to

distribute and trade (retail supply) electricity within [**AREA OR ZONE WHERE THE DISCO CAN OPERATE**] which includes the Distribution Network.

- C. The Mini-Grid Operator seeks to connect to the DisCo's distribution network described in Schedule 1 below and operate as an Interconnected Mini-Grid, supplying electricity to the Connected Community under the terms set out in this Agreement.
- D. The DisCo has agreed to delineate part of its distribution network to be operated in an island mode and as part of an Interconnected Mini-Grid.
- E. This Agreement sets out the conditions for the connection and operation in Recital C above, which include but not limited to the following:
  - i. the usage right for the DisCo's network infrastructure;
  - ii. the construction and ownership right for additional infrastructure;
  - iii. the tariff for electricity generated and supplied by the Mini-Grid Operator;
  - iv. the availability of stable nominal voltage at the Connection Point of the generator with the DisCo's Network; and
  - v. the agreement of the Connected Community to purchase electricity from the Mini-Grid.

**NOW THEREFORE**, in view of the foregoing and in consideration of the mutual benefits to be derived contained herein, and other good and valuable consideration, the sufficiency of which is hereby acknowledged, and intending to be legally bound, the Parties hereby agree as follows:

## **1. DEFINITIONS AND INTERPRETATIONS**

1.1 In this Agreement each of the following words and expressions shall have the following meanings:

**"Applicable Laws"** means the Constitution of the Federal Republic of Nigeria, any national, provincial, state or local law, statute, bye-law, ordinance, decree, directive, regulation, standard, circular, guideline, rule, code, delegated or subordinated legislation, judicial act or decision, judgment, order, proclamation, directive, executive order, other legislative measure, binding actions or enactments of the Federal Republic of Nigeria or any other relevant authority in Nigeria.

**"Assets and Infrastructure"** means those assets and infrastructure within the Distribution Network that forms part of the Interconnected Mini-Grid.

**"Effective Date"** means [NUMBER OF DAYS] following the fulfilment of the Conditions in Clause 2 of this Agreement or as agreed otherwise by the Parties.

**"Commission"** means the Nigerian Electricity Regulatory Commission

<b>“Connected Community”</b>	[Name and location of Community including the Local Government Area]
<b>“Default Interest Rate”</b>	means the rate of (X%) per annum above Central Bank of Nigeria Monetary Policy Rate or such equivalent rate as may be agreed between the Mini-Grid Operator and the DisCo.
<b>“Distribution Network”</b>	means any connection of cables, service lines and overhead lines, electrical apparatus/equipment and having design voltage of 33kV and below used to transport electric power on a distribution system.
<b>“Generation Assets”</b>	means the generation assets owed by the Mini-Grid Operator that forms part of the Interconnected Mini-Grid.
<b>“Initial Term”</b>	shall have the meaning ascribed in Clause 3.2
<b>“Interconnected Network”</b>	means the interconnected network specified in the map in Schedule 1 of this Agreement for the connection of the distribution network at [(coordinates) (Distribution Grid) to the Mini-Grid Operator].
<b>“Renewal Term”</b>	shall have the meaning ascribed in Clause 3.4
<b>“Maximum Capacity”</b>	means the maximum amount of electricity expressed in kW or kVA which can be transmitted from the Mini-Grid Operator’s Generator and to the Interconnected Network.
<b>“Mini-Grid Regulations”</b>	means the NERC Regulations for Mini-Grids Up To 1MW in force from time to time
<b>“Standardized Spreadsheets for Tariff Calculation”</b>	shall be the standardized spreadsheet in Annex 15 of the Mini-Grid Regulations
<b>“Subsequent Term”</b>	shall have the meaning ascribed in Clause 3.3
<b>“Technical Codes”</b>	shall have the same meaning in the Mini-Grid Regulations

1.2 In this Agreement, except where the context otherwise requires:



- 1.2.1 any reference to "this Agreement" includes the Schedules and Annexures to it, each of which forms part of this Agreement for all purposes, and where any such Schedule or Annexure conflicts with the provision of this Agreement the relevant provisions of this Agreement( excluding the Schedules and Annexures) shall apply;
- 1.2.2 a reference to an enactment or statutory provision shall include a reference to any subordinate legislation made under the relevant enactment or statutory provision or subordinate legislation as from time to time amended, consolidated, modified, re-enacted or replaced;
- 1.2.3 words in the singular shall include the plural and vice versa;
- 1.2.4 a reference to a Clause, paragraph, Annexure or Schedule shall be a reference to a Clause, paragraph, Annexure or Schedule (as the case may be) of or to this Agreement;
- 1.2.5 a reference to this Agreement and any other document referred to in this Agreement is a reference to such document as amended, varied, or supplemented at any time;
- 1.2.6 if a period of time is specified as **from** a given day, or from the day of an act or event, it shall be calculated exclusive of that day;
- 1.2.7 if a period of time is specified as **to** a given day, or to the day of an act or event, it shall be calculated inclusive of that day;
- 1.2.8 a reference to "writing" or "written" shall include any legible reproduction of words delivered in permanent and tangible form (including email);
- 1.2.9 a reference to "includes" or "including" shall mean "includes without limitation" or "including without limitation";
- 1.2.10 the headings in this Agreement are for convenience only and shall not affect its interpretation.

## **2. CONDITIONS**

This Agreement shall become effective upon approval by the Commission.

**[NOTE THAT THIS IS NOT AN EXHAUSTIVE LIST OF CONDITIONS. HOWEVER THE CONDITIONS LISTED ARE MANDATORY AND MUST BE MET BEFORE A TRIPARTITE CONTRACT BECOMES EFFECTIVE].**

### **3. COMMENCEMENT AND TERM**

- 3.1 This Agreement shall commence on the Effective Date of the Commission's Approval.
- 3.2 Subject to the earlier termination in accordance with this Agreement, the initial duration of this Agreement shall be as stated in the Annex 1B from the Effective Date for the purpose of project planning, securing necessary permissions where applicable, construction and commissioning of the project ("**Initial Term**");
- 3.3 Upon expiration of the Initial Term, this Agreement will be automatically renewed for a period of 20 years ("**Subsequent Term**").
- 3.4 Except where the Parties agreeing otherwise, this Agreement will automatically be renewed for a successive (1) year period (each "**Renewal Term**") unless a Party provides the other Party with notice of its intent not to renew this Agreement at least 1 year prior to the expiration of the Subsequent Term.
- 3.5 From the Effective Date, any exclusivity agreement entered into between the parties in respect of this Project, if not terminated will be deemed to have been terminated.

### **4. RIGHT OF USAGE OF THE DISTRIBUTION NETWORK**

- 4.1 The DisCo hereby grants the Mini-Grid Operator an exclusive right of usage of the Interconnected Network for the duration of the Term.
- 4.2 The Mini-Grid Operator confirms that it has undertaken an analysis of the physical condition of the Distribution Network and confirms that, save for those listed as deficient in Schedule 2 below, the Assets and Infrastructure of the DisCo within the Distribution Network are in good condition and conform with the requirements in the Technical Codes.
- 4.3 Pursuant to Clause 4.1, the Mini-Grid Operator shall have the following rights:
  - 4.3.1 carry out such repairs that are required to perform its obligations under this Agreement;

4.3.2 make new connections to, expand and/or extend the Interconnected Network provided that, the Commission's approval has been obtained and these connections and extensions are in accordance with the requirements of the Technical Codes;

4.3.3 to connect such amount of generators up to a total Generation Capacity of 1 MW to the Distribution Network sufficient to cover the demand by the Interconnected Community within the Maximum Capacity and the technical limits of the Distribution Network.

4.4 The cost of the repairs in Clause 4.3.1 above shall be borne by the [Mini-Grid Operator AND/OR DisCo].

## **5. DUTIES AND OBLIGATIONS OF THE PARTIES**

5.1 Subject to the terms of this Agreement, the DisCo shall:

5.1.1 pay the compensation prescribed in Clause 14.3.1 below in the event of termination which occurs pursuant to Clause 14.1.1 and Clause 14.2 of this Agreement.

5.1.2 make available to the Mini-Grid Operator such information and documents in its possession and control and such reasonable assistance required for the performance of its obligations under this Agreement;

5.1.3 prior to the Effective Date, provide the Mini-Grid Operator with a copy of its expansion plan of the Distribution Network and as relates to the Interconnected Network, a copy of all existing operational procedures, plans and regulations applicable to the Distribution Network which are available to the DisCo; and

5.1.4 promptly provide to the Mini-Grid Operator, in relation to the Interconnected Network, all technical and operational information in the DisCo's possession or produced by or provided to the DisCo during the Term. If the Mini-Grid Operator identifies technical and operational information that should be available in relation to the Interconnected Network but is not in the DisCo's possession and is required by the Mini-Grid Operator in order to perform in accordance with this Agreement, the DisCo and the Mini-Grid Operator shall in co-operation use reasonable endeavours to obtain such information.

5.1.5 obtain the necessary approvals from the Commission required by the Mini-Grid Operator to undertake the activities in Clause 4.3.2 above

5.2 Subject to the terms of this Agreement, the Mini-Grid Operator shall:

- 5.2.1 have a generator within the Interconnected Network to supply electricity to the Connected Community;
- 5.2.2 operate the Interconnected Network and ensure that it has an availability of at least [95%] at all times;
- 5.2.3 operate, maintain and carry out such repairs to the Asset and Infrastructure in the course of its operations in accordance with the Technical Codes; and
- 5.2.4 ensure that new connections, installations and extensions made pursuant to Clause 4.3.2 conform with the requirement in the Technical Codes and this Agreement<sup>1</sup>.

5.3 The Mini-Grid Operator shall carry out its obligations under this Agreement in accordance with the Mini-Grid Regulations, Good Industry Practice, Technical Codes and the standards and requirements of the Commission.

5.4 The [Mini-Grid Developer **OR** DisCo]<sup>2</sup> shall be responsible for making the necessary repairs to the Assets and Infrastructure listed in Schedule 2; and this shall ensure that such repairs conform to the requirements of the Technical Codes.

5.5 Subject to the terms of this Agreement, the Connected Community/Connected Community Representative shall:

- 5.5.1 ensure that the Connected Community provides sufficient land required by the Mini-Grid Operator required for the installation and operation of the Generation Assets as depicted in the map in Schedule 4 below;
- 5.5.2 that the land provided pursuant to Clause 5.4.1 above shall be either at no cost to the Mini-Grid Operator or at a nominal fee of no more than ~~₦~~10,000 annually;

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<sup>1</sup> This is to be decided between the Parties

<sup>2</sup> This is to be decided between the Parties

- 5.5.3 ensure that other than the nominal fee imposed pursuant to Clause 5.4.2 above, the Mini-Grid Operator shall not be required to make any further payments in respect of the usage of the land;
- 5.5.4 procure the payment of the tariff as stipulated in the Agreement by the Interconnected Community;
- 5.5.5 procure such security measures that are reasonably necessary and required by the Mini-Grid Operator to prevent any vandalism and/or electricity theft within the Interconnected Network;
- 5.5.6 be responsible for any vandalism and/or theft within the Interconnected Network which occurs due to its breach of Clause 5.5.5.

## **6. OWNERSHIP OF THE NEW INSTALLATIONS**

- 6.1 The DisCo and the Mini-Grid Operator agree that all new installations, improvements, extensions and expansions to the Interconnected Network made by the Mini-Grid Operator shall vest in and continue to vest in and remain the property of the [DisCo or Mini-Grid Operator]<sup>3</sup>.
- 6.2 [The Mini-Grid Operator and the DisCo agree that the provision in Clause 6.1 above is applicable, notwithstanding that the Mini-Grid Operator paid the cost of these new installations and extensions]<sup>4</sup>.

## **7. CONNECTION OF THE GENERATION ASSETS TO THE DISTRIBUTION NETWORK AND EXPANSION OF THE DISTRIBUTION NETWORK**

### ***GENERATION ASSETS CONNECTIONS***

- 7.1 The cost for the connection of the Mini-Grid Operator's generation assets to the Distribution Network shall be borne by the Mini-Grid Operator.
- 7.2 Except where Parties agree to do otherwise, the Mini-Grid Operator shall install the Generation Assets, connect them to the Distribution Network and construct all the foundations, buildings, fencing as well as roads and other infrastructure required for installing, securing and accessing the Generation Assets.

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<sup>3</sup> The Parties to decide how to handle ownership and compensation of new installations.

<sup>4</sup> To be decided by the Parties

- 7.3 Except where Parties agree to do otherwise, the cost of the constructions undertaken by the Mini-Grid Operator pursuant to Clause 7.3 above shall be borne by the Mini-Grid Operator.
- 7.4 The Generation Assets shall be as depicted in Schedule 5.
- 7.5 Except where Parties agree to do otherwise, the Mini-Grid Operator shall at its own cost maintain the Generation Assets for its generation activities and operations.

***EXPANSION OF THE DISTRIBUTION NETWORK***

- 7.6 Subject to the approval of the Commission and except where the Disco and Mini Grid Operator agree otherwise, the Mini-Grid Operator shall bear the costs for any extensions of the Distribution Network it undertakes.
- 7.7 Where the Parties agree that the DisCo shall perform the extensions at its own cost, the modalities for such extensions shall be as follows:

7.7.1 [DETAILS OF SUCH MODALITIES TO BE INCLUDED HERE]

**8. AVAILABILITY OF THE DISTRIBUTION NETWORK**

- 8.1 The DisCo undertakes to the Mini-Grid Operator that the main grid shall be available at the minimum [XX] times per week between the hours of [XX] am and [XX] pm for at least [XX] hours.
- 8.2 The Mini-Grid Operator warrants to the Interconnected Community, an availability of [95]% of the Distribution Network. For the purpose of clarity, the Distribution Network is considered as available if the grid voltage and frequency at the customer's connection does not deviate more than plus/minus 20% from the nominal values as specified in Schedule 6.
- 8.3 Where the average monthly availability of the Distribution Grid is lower or greater than the value in Clause 8.2 above more than three months in a row, the Interconnected Community shall have a right to contact NERC for a change in the tariffs.

**9. EXTRACTION LIMITS**

- 9.1 The Mini-Grid Operator undertakes not to extract more than the Maximum Capacity in any 15 minute interval in both directions.

9.2 Where the Mini-Grid Operator extracts more than the Maximum Capacity, a penalty [XX] NGN for each 15 minute interval exceeding the Maximum Power shall be paid by the Mini-Grid Operator to the DisCo.

## **10. SALE OF ELECTRICITY BETWEEN THE MAIN GRID AND THE DISTRIBUTION NETWORK**

10.1 The Mini-Grid Operator shall purchase electricity from the main grid for a tariff of [XX] NGN/kWh.

10.2 The Mini-Grid Operator shall sell excess electricity to the main grid, subject to the Commission's consent.

## **11. USAGE FEE AND PAYMENT TERMS**

11.1 Pursuant to the rights granted in Clause 4.1 and 4.3 above, the Mini-Grid Operator shall be required to pay a usage fee to the DisCo of [XX] NGN monthly ("**Usage Fee**").

11.2 Except where the Parties have agreed otherwise with NERC's approval, the Usage fee shall be calculated using the procedure in Annex 8 of the Mini-Grid Regulations 2016.

11.3 Following the issuance of an invoice by the DisCo, the Usage Fee shall be payable on the 10<sup>th</sup> business day following the day the invoice is delivered to the Mini-Grid Operator into a bank account designated by the DisCo. Where such date is a public holiday or weekend, the payment will be due on the first working day after this day.

11.4 Where the Mini-Grid Operator fails to pay the Usage Fee on the day it is due and payable, interest shall accrue at the Default Interest Rate on the unpaid balance from the date on which payment is due until the date on which payment is received by the DisCo.

## **12. TARIFF**

12.1 The Mini-Grid Operator shall provide electricity to the Connected Community at the tariffs as approved by NERC and calculated with the Standardized Spreadsheets in Annex 15.

12.2 The Mini-Grid Operator shall be required to give sufficient notice to the other Parties where it intends to apply for an adjustment of tariff.

12.3 This tariff can be adjusted according to the procedures mentioned in the Mini-Grid Regulations.

12.4 The Parties agree that an inspection of accounts for the purpose of an adjustment of tariffs may be carried out by NERC. This inspection may be initiated by the Community, the Mini-Grid Operator or by NERC.

### **13. REPRESENTATION AND WARRANTIES**

13.1 Each Party represents and warrants to the other, on the date of this Agreement, and continuing throughout the Term that:

13.1.1 it is duly organized under the Applicable Laws of its jurisdiction of formation and that it has the requisite legal power and authority to enter into, and carry out its obligations under, this Agreement;

13.1.2 it shall continue to have all necessary corporate power and authority (corporate and regulatory) to carry on its business as presently conducted and to perform its obligations under this Agreement;

13.1.3 the execution and delivery of this Agreement and the consummation of the transactions contemplated thereby have been duly authorized by all necessary corporate actions on its part;

13.1.4 Agreement constitutes legal, valid and binding obligations enforceable against it in accordance with the terms hereof;

13.1.5 the execution of this Agreement is not prohibited by its constituent documents nor does its execution contravene provisions of any Applicable Law;

13.1.6 the execution, delivery, and performance of this Agreement have been duly authorized by all requisite actions and will not constitute a violation of:

13.1.6.1 any statute, judgment order, decree or regulation of any court, commission, government authority or arbitral tribunal applicable or relating to itself, its assets or its functions, or

13.1.6.2 any other documents, or to the best of its knowledge any indenture, contract or agreement to which it is a party or by which it may be bound;



13.1.7 there are no actions, suits or proceedings pending or, to the best of its knowledge threatened against it before any court, government authority or arbitral tribunal that could reasonably be expected to restrain it from performing or result in a material adverse effect on its ability to perform its duties and obligations under this Agreement; and

13.1.8 no representation or warranty made by it herein contains any untrue or misleading statement.

#### **14. TERMINATION**

14.1 The DisCo may terminate this Agreement on written notice to the other Parties if:

14.1.1 the DisCo decides to re-integrate the Mini-Grid into the main-grid before the expiration of the Term or Renewal Term, which may be due to any of the following events in the paragraphs below:

- i. the Mini-Grid Operator fails to pay any amount due to the DisCo, provided that the DisCo has given the Mini-Grid Operator not less than [30] days' notice of such failure and the non-payment has not been cured within such [30] day period;
- ii. the Mini-Grid Operator commits a breach of this Agreement, other than that provided in Clause 14.1.1 (i) above, which in the case of a breach which is capable of remedy has not been remedied within [30] days (or such other period as may be agreed by the Mini-Grid Operator and the DisCo) of the DisCo notifying the Mini-Grid Operator of the breach.

14.1.2 the Mini-Grid Operator becomes insolvent unable to pay its debts (as defined by section 4 of the Bankruptcy Act 1979 and section 409 of the Companies and Allied Matters Act 2004) or makes any arrangement or composition with its creditors generally or has a receiver, manager, liquidator, administrator or trustee in bankruptcy appointed or suffers any event analogous to the foregoing in any jurisdiction;

14.1.3 any of the representations made by the Mini-Grid Operator under this Agreement is not true and correct in all material respects and this has a material

adverse effect on the DisCo or the performance of the Mini-Grid's Operation under this Agreement.

14.2 The Mini-Grid Operator may on written notice to the DisCo terminate the Agreement if:

- 14.2.1 The DisCo's Licence expires and is not renewed within [30] days of its expiration or the DisCo's Licence is cancelled by NERC;
- 14.2.2 The DisCo becomes unable to pay its debts (as defined by section 4 of the Bankruptcy Act 1979 and section 409 of the Companies and Allied Matters Act 2004) or makes any arrangement or composition with its creditors generally or has a receiver, manager, liquidator, administrator or trustee in bankruptcy appointed or suffers any event analogous to the foregoing in any jurisdiction;
- 14.2.3 the DisCo commits a breach of this Agreement which in the case of a breach which is capable of remedy has not been remedied within [30] days (or such other period as may be agreed by the Mini-Grid Operator and the DisCo) of the Mini-Grid Operator notifying the DisCo of the breach;
- 14.2.4 Any of the representations made by the DisCo under this Agreement is not true and correct in all material respects and this has a material adverse effect on the Mini-Grid Operator or the performance of the DisCo's obligations under this Agreement.

14.3 The consequences of termination shall be as follows:

- 14.3.1 Where termination occurs pursuant to Clause 14.1.1 and Clause 14.2, the DisCo shall pay compensation to the Mini-Grid Operator as provided in the Mini-Grid Regulations.
- 14.3.2 The DisCo may set off any liability of the Mini-Grid Operator to pay a Usage Fee or any other costs (where applicable) to the DisCo against any compensation due from the DisCo to the Mini-Grid Operator.
- 14.3.3 Where termination occurs, the DisCo would immediately re-integrate the Connected Community in order to provide electricity supply for as long as necessary until another Mini-Grid Operator is ready to take over operations or the DisCo can go on operating the Interconnected Network.

14.4 Upon termination, the Mini-Grid Operator shall at its own cost:

14.4.1 remove the Mini-Grid's Generation Assets which it does not want to form part of the re-integrated network;

14.4.2 disconnect any connection of its generator(s) to the Distribution Network and restore the connections which existed prior to the connection of its generators.

14.5 On the termination date the Mini-Grid Operator shall deliver up to the DisCo all materials, documents, records, data and other information of whatever nature in the Mini-Grid-Operator's possession, custody or power relating to the Distribution Network and the performance of the obligations under this Agreement and required for the continued operation and maintenance of the Distribution Network.

## **15 FORCE MAJEURE**

15.1 A party is not liable for failure to perform its obligations if such failure is as a result of:

15.1.1 Acts of God (including fire, flood, earthquake, storm, hurricane or other natural disaster);

15.1.2 war, invasion, act of foreign enemies, hostilities (regardless of whether war is declared), civil war, rebellion, revolution, insurrection, military or usurped power or confiscation, terrorist activities, government sanction, blockage, embargo, labour dispute, strike (excluding any strikes by staff of either the Disco or Mini-Grid Operator). ("**Force Majeure**")

## **16 CONFIDENTIAL INFORMATION**

16.1 A Party shall not intentionally disclose or allow to be disclosed to any third party any Confidential Information concerning the other Parties or any information obtained under this Agreement and in furtherance to the execution of the Interconnected Mini-Grid unless:

16.1.1 the disclosure is expressly assented to in writing by the Party to which the Confidential Information belongs;

16.1.2 the disclosure is subject to a legal obligation of disclosure.

16.2 Each Party, after consultation with the others, shall adopt reasonable procedures to preserve the Confidential Information of the other Parties.

16.3 No information shall constitute Confidential Information if:

16.3.1 the information is generic in nature, or have at the relevant time become public knowledge or has been in the public domain, other than as a result of disclosure by the Parties or their representative;

16.3.2 the information has at the relevant time become, already in the possession of the Parties free from any obligation of confidentiality to either of the Parties or any other person and has not been acquired by any person in breach of any obligations of confidentiality.

16.3.3 the information is required to be disclosed by law or order of any court, tribunal or agency of competent jurisdiction or by any governmental body, department or agency having jurisdiction or it or by any equivalent laws or regulations of institutions or other equivalent authorities in jurisdictions outsider Nigeria; or

16.3.4 the information is expressly stated in writing to be non-confidential.

## **17 CONFLICT OF INTEREST**

The Parties to this Agreement declare that there is no existing conflict of interest which would affect their entry into this Agreement.

## **18 AMENDMENTS**

No amendments to this Agreement shall be effective unless it is in writing and signed by the parties or their authorized representatives.

## **19 WAIVERS**

Save where expressly set out herein to the contrary, a waiver of any term or provision of this Agreement shall only be effective if given by a written instrument executed by the Party waiving the provision of this Agreement and no forbearance, indulgence or inaction by any Party at any time to require performance of any of the provisions of this Agreement nor any single or partial exercise of any such right shall, in any way, affect, depreciate or prejudice the right of such Party to require performance of that provision in the future.

## **20 NOTICES**

20.1 All notices or other documents to be furnished by the Parties under or in connection with this Agreement shall be in English language and shall be sent to the addresses stated above and marked for the attention of the persons designated in this clause 20. Notices and other documents may be sent by hand delivery, registered post, courier or email, provided that law suits arising out of or in connection with this Agreement may not be served by email.

20.2 The addresses and contacts for the service of notices and other documents are as follows (or such other address or contacts as may be subsequently notified by the relevant Party in accordance with this clause 20):

If to DisCo:

[ADDRESS]

Attention:

Tel:

E-mail address:

If to Mini-Grid Operator:

Attention:

[.]

Tel:

[]

E-mail Address: [.]

If to Interconnected Community or Representative of Interconnected Community:

Attention:

[.]

Tel:

[]

E-mail Address: [.]

Each Party shall notify the other in writing promptly of any change in the above address or contact person.

## 21 COUNTERPARTS

This Agreement may be executed in any number of counterparts, each of which when executed and delivered shall be an original, but all the counterparts shall together constitute one and the same instrument.

## **22 SEVERABILITY**

22.1 If any provision or part-provision of this Agreement is or becomes invalid, illegal or unenforceable, it shall be deemed modified to the minimum extent necessary to make it valid, legal and enforceable. If such modification is not possible, the relevant provision or part-provision shall be deemed deleted. Any modification to or deletion of a provision or part-provision under this clause shall not affect the validity and enforceability of the rest of this Agreement.

22.2 If one Party gives notice to the other of the possibility that any provision or part-provision of this Agreement is invalid, illegal or unenforceable, the parties shall negotiate in good faith to amend such provision so that, as amended, it is legal, valid and enforceable, and, to the greatest extent possible, achieves the intended commercial result of the original provision.

## **23 ENTIRE AGREEMENT**

23.1 This Agreement constitutes the entire Agreement between the parties and supersedes and extinguishes all previous agreements, promises, assurances, warranties, representations and understandings between them, whether written or oral, relating to its subject matter.

23.2 Each Party agrees that it shall have no remedies in respect of any statement, representation, assurance or warranty (whether made innocently or negligently) that is not set out in this Agreement. Each party agrees that it shall have no claim for innocent or negligent misrepresentation or negligent misstatement based on any statement in this Agreement.

## **24 SUCCESSORS AND ASSIGNS**

This Agreement is binding upon, and inures to the benefit of, the parties and their respective successors and assigns.

## **25 COST**

Except as otherwise agreed, each Party shall bear its own costs incurred in connection with the negotiations, preparation and execution of this Agreement.

**26 GOVERNING LAW AND DISPUTE RESOLUTION**

***Governing Law***

26.1 This Agreement and any disputes or claims arising out of or in connection with its subject matter or formation (including non-contractual disputes or claims) are governed by and construed in accordance with the laws of the Federal Republic of Nigeria.

***Dispute Resolution***

26.2 Except as otherwise provided in this Agreement, any dispute of whatever nature which may arise between all or any of the Parties out of or in connection with this Agreement shall be dealt with in accordance with the procedure set out in Annex 10 (Dispute Resolution Mechanism) of the Mini-Grid Regulations.

26.3 The Parties acknowledge and agree that, except as expressly provided in this Agreement, the provisions of Annex 10 (Dispute Resolution Mechanism) of the Mini-Grid Regulations constitute the sole remedy of the Parties.

**IN WITNESS** whereof this Agreement was executed the day and year first above written.

For **[ELECTRICITY DISTRIBUTION COMPANY]**

Signed at ..... on this ..... day of ..... 2014.

By:

Name:

WITNESSES

1. \_\_\_\_\_

2. \_\_\_\_\_

For **[MINI-GRID OPERATOR]**

Signed at ..... on this ..... day of ..... 2014.

By:

Name:

WITNESSES

1. \_\_\_\_\_

2. \_\_\_\_\_

For **[INTERCONNECTED COMMUNITY /REPRESENTATIVE OF INTERCONNECTED COMMUNITY]**

Signed at ..... on this ..... day of ..... 2014.

By:

Name:

WITNESSES

1. \_\_\_\_\_

2. \_\_\_\_\_



**ACCOMPANYING DOCUMENTATION (IN ADDITION TO SCHEDULES BELOW)**

1. Certified copy of Certificate of Incorporation, Memorandum and Articles of Association, Deed of Partnership or Deed of Trust, as applicable
2. Certified copy of Certificate of Occupancy or Lease Agreement for Project Site
3. Certified copy of building permit
4. Filled Standardized Spreadsheets for Tariff Calculation

**SCHEDULE 1 – MAP OF THE INTERCONNECTED NETWORK**

***DisCo to provide survey plan and geographic coordinates where available***

Signature DisCo

Signature Mini-Grid Operator

Signature Interconnected Community

**SCHEDULE 2 – LIST OF DEFICIENCIES IN THE DISTRIBUTION GRID**

Deficiencies

- 
- 
- 

Signature DisCo

Signature Mini-Grid Operator

**SCHEDULE 3 – DISTRIBUTION NETWORK INFRASTRUCTURE INSTALLED BY THE MINI-GRID OPERATOR**

Map of new connections and lines

- -----(the Mini-Grid Operator) hereby certifies that the new Distribution Grid infrastructure will conform with the requirements in the Technical Codes. The contribution of the DisCo to the construction of new assets is [ XXX NGN to be paid on the date of commissioning of the new infrastructure]<sup>5</sup>.
- The contribution of the Interconnected Community to the construction of new assets is [XXX NGN to be paid on the date of commissioning of the new infrastructure]<sup>6</sup>.

Signature DisCo

Signature Mini-Grid Operator

Signature Interconnected Community

---

<sup>5</sup> To be decided by the parties

<sup>6</sup> To be decided by the parties

**SCHEDULE 4 – MAP OF PLOT FOR POWER GENERATION ASSETS**

Signature DisCo

Signature Mini-Grid Operator

Signature Interconnected Community

SCHEDULE 5 – DIAGRAM OF FIXED INFRASTRUCTURE FOR GENERATION ASSETS

Cost split between the partners

DisCo: XXX NGN or XX %

Interconnected Community: XXX NGN or XX %

Mini-Grid Operator: XXX NGN or XX %

Others: XXX NGN or XX %

Dismantling of infrastructure after contract termination:

Signature DisCo

Signature Mini-Grid Operator

Signature Interconnected Community

## SCHEDULE 6 – BOUNDARY VALUES OF THE DISTRIBUTION GRID

The Distribution Grid is considered as available if the grid voltage and frequency at the customer's connection does not deviate more than +/- 20% from the following values:

Grid Voltage Nominal Value: XX V

Grid Frequency Nominal Value: XX Hz

Therefore, the average monthly availability of the Distribution Grid (for more than 3 months in a row):

- cannot be lower than  $XX * 80\%$  V or  $XX * 80\%$  Hz  
or
- greater than  $XX * 120\%$  V or  $XX * 120\%$  Hz

In case of complaints, these values should be checked at least 2 times in a period of one month and with a time interval between the 2 measures of at least 5 days.

Signature DisCo

Signature Mini-Grid Operator

Signature Interconnected Community

**ANNEX 12**  
**CONTRACT TEMPLATE BETWEEN ISOLATED MINI-GRID OPERATOR AND COMMUNITY**

**THIS AGREEMENT** is made on this [DATE]

**BETWEEN**

[NAME], a company duly incorporated under the laws of the Federal Republic of Nigeria and having its registered office at [OFFICE ADDRESS] hereinafter called the “**Mini-Grid Operator**” which expression shall where the context so admits include its successors-in-title.

**AND**

[NAME] a legally authorised representative of [NAME OF COMMUNITY] in his capacity as [village Head] connected to the Interconnected Mini-Grid hereinafter called the “**Community Representative**”.

**OR**

[NAME] a company/association duly incorporated/registered under the laws of the Federal Republic of Nigeria and having its registered office at [OFFICE ADDRESS], acting as the legally authorised representative of [NAME OF COMMUNITY/CHAIRMAN OF THE LOCAL GOVERNMENT AREA] connected to the Interconnected Mini-Grid hereinafter called the “**Community**”.

In this Agreement, the Mini-Grid Operator and Community/Community Representative are referred to collectively as “Parties” and individually as “Party”.

**RECITAL/ BACKGROUND**

- A. The Mini-Grid Operator is in the business of constructing, operating and maintaining Mini-Grids.
- B. The Mini-Grid Operator seeks to develop a Mini-Grid and supply electricity to the Community from electricity generated by the Mini-Grid (“**Project**”).
- C. In view of the above, this Agreement sets out the terms and conditions under which the Mini-Grid Operator shall supply electricity to the Community.

**1. DEFINITIONS AND INTERPRETATIONS**

5.1 In this Agreement each of the following words and expressions shall have the following meanings:

<b>“Applicable Laws”</b>	means the Constitution of the Federal Republic of Nigeria, any national, provincial, state or local law, statute, bye-law, ordinance, decree, directive, regulation, standard, circular, guideline, rule,
--------------------------	---



code, delegated or subordinated legislation, judicial act or decision, judgment, order, proclamation, directive, executive order, other legislative measure, binding actions or enactments of the Federal Republic of Nigeria or any other relevant authority in Nigeria.

**“Effective Date”** means date of execution of this Agreement or as agreed otherwise by the Parties.

**“Community”** [Name and location of Community including the Local Government Area]

**“Community Power Committee” or “CPC”** means a committee established by the Community to coordinate all electricity customers in the Community, to address enquiries and complaints.

**“Distribution Company”** means an electricity distribution company Licenced by NERC.

**“Qualified Customers”** means those customers that are deemed qualified pursuant to Clause 3.2.

**“NERC”** means the Nigerian Electricity Regulatory Commission.

**“Standardized Spreadsheets for Tariff Calculation”** means the standardized spreadsheets in Annex 15 of the Mini-Grid Regulations.

**“Technical Codes”**) shall have the same meaning in the Mini-Grid Regulations.

5.2 In this Agreement, except where the context otherwise requires:

5.2.1 any reference to “this Agreement” includes the Schedules and Annexures to it, each of which forms part of this Agreement for all purposes;

5.2.2 if a period of time is specified as **from** a given day, or from the day of an act or event, it shall be calculated exclusive of that day;

5.2.3 if a period of time is specified as **to** a given day, or to the day of an act or event, it shall be calculated inclusive of that day;

## 2. COMMENCEMENT AND TERM

2.1 This Agreement shall commence on the Effective Date.

2.2 Subject to the earlier termination in accordance with this Agreement:

2.2.1 the initial duration of this Agreement shall be [12] months from the Effective Date to undertake the activities in Clause [4.1.] (“**Initial Term**”);

2.2.2 upon expiration of the Initial Term, this Agreement will be automatically renewed for a period of 20 years (“**Subsequent Term**”).

2.3 From the Effective Date, any exclusivity agreement entered into between the parties in respect of this Project, if not terminated will be deemed to have been terminated.

### 3. MINI-GRID PROJECT

3.1 The [TECHNOLOGY FOR THE MINI-GRID] system, which supplies electricity at a low voltage to a distribution network, shall be used.

3.2 The Parties acknowledge that the decision as to who qualifies as a Qualified Customer to be supplied electricity is dependent on the technical design of the Mini-Grid system and the economic evaluation of the feasibility study already carried out by the Mini-Grid Operator, with the full consent of the Community and the Community Power Committee (“**CPC**”).

3.3 Where new components are to be integrated, this shall be mutually agreed and understood between the Parties.

3.4 The Parties acknowledge that:

3.4.1 The Mini-Grid Operator is a [private and profit-oriented company], with the aim of supplying electricity to rural communities and investing its own funds into projects to generate profits from the sale of electricity to customers; and

3.4.2 The Mini-Grid Operator is committed to the provision and supply of a long-term and high quality electricity service, which is contingent upon regular payments from customers.

### 4. LAND

4.1 The Parties shall jointly identify suitable land within the Community for the Mini-Grid Project according to the criteria of the Mini-Grid Operator;

4.2 The Community shall at its own expense procure the land identified pursuant to Clause 5.1 above which shall be leased to the Mini-Grid Operator at no cost to the Mini-Grid Operator or a nominal fee of no more than ₦10, 000 annually; and

4.3 The Community and the Mini-Grid Operator shall execute a separate agreement for the lease arrangement in Clause 4.2 above.

## 5. DUTIES AND OBLIGATIONS OF THE PARTIES

5.1 Subject to the terms of this Agreement, the Mini-Grid Operator shall:

5.1.1 During the Initial Term, carry out the project planning, acquire the necessary permissions to install, operate and maintain the energy system;

5.1.2 plan, design, procure, install, commission, operate and maintain the power station and the distribution network;

5.1.3 sell electricity generated to the customers who are deemed qualified pursuant to Clause 3.2 above (“**Qualified Customers**”);

5.1.4 provide reliable and satisfactory energy services to the Qualified Customers within the Community; and

5.1.5 carry out its operations in accordance with Good Industry Practice, Technical Codes and the standards and requirements set out in this Agreement.

5.2 Subject to the terms of this Agreement, the Community/Community Representative shall:

5.2.1 ensure that the Community provides sufficient land required by the Mini-Grid Operator required for its operation;

5.2.2 ensure that other than the nominal fee imposed pursuant to Clause 4.2 above, the Mini-Grid Operator shall not be required to make any further payments in respect of the usage of the land;

5.2.3 procure the payment of the tariff as stipulated in this Agreement and

5.2.4 ensure that the Community establishes a Community Power Committee (“**CPC**”) to coordinate all electricity customers, to address enquiries and complaints.

## **6. Tariff**

### **Tariff Model and Tariff**

6.1 The Parties acknowledge that:

6.1.1 the tariff will be calculated either by:

6.1.1.1 using the Standardized Spreadsheets and approved by NERC; or

6.1.1.2 In case of Registered Mini-Grids, by an agreement between the Registered Mini-Grid Operator and the Community/Community Representative preferably based on the Standardized Spreadsheet with a minimum of 60% of the Qualified Customers in the Community consenting to the tariff in the agreement.

6.1.2 The tariff applied will be higher than the tariff charged by the DisCo and this is due to the fact that smaller power supply systems have higher costs of energy generation.

6.1.3 The Mini-Grid Operator's goal is to offer the lowest possible tariffs to its customers based on high efficient technology and operational measures.

6.1.4 The tariff is lower than the cost of alternative sources of energy currently being used by the Community

6.1.5 Based on Clauses 6.1.1 to 6.1.4 above, the Parties agree to that the tariff shall be [XXXX] based on:

Tariffs set by NERC based on the Standardized Spreadsheets;

Or

In case of Registered Mini-Grids, tariffs agreed between the Registered Mini-Grid Operator and the Community Representative to which the consent of a minimum of the 60% of the Qualified Customers within the Community has been obtained (preferably calculated using the calculation tool in Annex 15).

### ***Change in Tariffs***

6.2 The Parties agree that an inspection of accounts for the purpose of an adjustment of tariffs may be carried out by NERC. This inspection may be initiated by the Community, the Mini-Grid Operator or by NERC.

6.3 The Parties agree to give sufficient notice to each other where it intends to change its tariffs and apply to NERC for an adjustment of tariff.

## **7. METERS AND INDOOR INSTALLATIONS**

7.1 Pre-paid energy meters with [Specification of Meters] shall be installed at each Qualified Customer's premises.

7.2 The financing method for the indoor installation packages shall be agreed between the Parties on a case by case basis with the consent of the Commission.

7.3 The payment of electricity shall be subject to the subscribed power of each customer.

## **8 COMMUNITY POWER COMMITTEE**

8.1 The Community/Community Representative shall facilitate the establishment of a CPC which shall:

8.1.1 support the Mini-Grid Operator in all Mini-Grid Project related activities that are not detrimental to the Community;

8.1.2 assist in providing labour for the construction of the Mini-Grid Project;

8.1.3 assist financially to cover for the capital cost of some assets required for the Mini-Grid Project;

8.1.4 assist in acquiring the necessary permits to install, operate and maintain the energy system;

8.1.5 convey and communicate the Community's issues to the Mini-Grid Operator and vice versa;

8.1.6 [collection on behalf of the Mini-Grid Operator fees for the electricity used for public lighting and transfer such fees collected to Mini-Grid Operator, where applicable];

- 8.1.7 Take the necessary measures against theft or vandalization of equipment; and
- 8.1.8 assist the Mini-Grid Operator in identifying suitable personnel for power station guards, electricians and locally based sales agents.

## 9 EXCLUSIVITY

9.1 For the duration of this Agreement, the Community Representative shall not enter into and shall ensure that the Community does not enter into any agreement with third parties in respect of other electricity supply initiatives.

## 10 TERMINATION

10.1 The Agreement may terminate upon mutual agreement by the Parties.

10.2 With the consent of the Community, the Community Representative may terminate this Agreement by giving thirty (30) days written notice to the Mini-Grid Operator where:

- 10.2.1 the Distribution Company decides to re-integrate the Mini-Grid into the main-grid before the expiration of the Term;
- 10.2.2 the Mini-Grid Operator's Permit expires and is not renewed within [30] days of the expiration or the Permit is cancelled by NERC;
- 10.2.3 the Mini Grid Operator abandons the Project for a period of more than [3] consecutive months;
- 10.2.4 the installation of the power system has not commenced within 12 months after the execution of this Agreement;
- 10.2.5 the Mini-Grid Operator becomes unable to pay its debts (as defined by section 4 of the Bankruptcy Act 1979 and section 409 of the Companies and Allied Matters Act 2004) or makes any arrangement or composition with its creditors generally or has a receiver, manager, liquidator, administrator or trustee in bankruptcy appointed or suffers any event analogous to the foregoing in any jurisdiction;
- 10.2.6 the Mini-Grid Operator commits a breach of Clause 5.1.4 and/or Clause 5.1.5 and fails to remedy the breach within 14 days (or as agreed between the Parties) following receipt of the notice of breach executed by at least 50% of all the Qualified Customers within the Community.

10.3 The Mini-Grid Operator may terminate this Agreement by giving 30 (thirty) days written notice to the Community Representative if:

10.3.1 where it decides not to pursue the Project;

10.3.2 the Community Representative commits a breach of Clause 5.2 which has an adverse effect on the Project and fails to remedy this breach within [30] working days (or as agreed between the Parties) of receiving the notice of breach; and

10.3.3 there are repeated incidents of vandalism, thefts of electricity which endanger the financial viability of the Mini-Grid Operator's energy supply and has an adverse effect on the Project.

10.4 Where termination occurs, pursuant to Clause 10.3.1, the Mini-Grid Operator shall undertake such restorations to the land and environment required to restore it back to good condition.

10.5 Upon termination, the Mini-Grid Operator shall at its own cost remove the Mini-Grid assets and infrastructure.

## **11. NOTICES**

11.1 All notices or other documents to be furnished by the Parties under or in connection with this Agreement shall be in the English language and shall be sent to the addresses stated above and marked for the attention of the persons designated in this clause 11. Notices and other documents may be sent by hand delivery, registered post, courier or email, provided that proceedings arising out of or in connection with this Agreement may not be served by email.

11.2 The addresses and contacts for the service of notices and other documents are as follows (or such other address or contacts as may be subsequently notified by the relevant Party in accordance with this clause 11):

If to Mini-Grid Operator:

Attention: [.]

Tel: []

E-mail Address: [.]

If to Representative of Community Representative:

Attention: [.]

Tel: []

E-mail Address: [.]

Each Party shall notify the other in writing promptly of any change in the above address or contact person.

## **12. AMENDMENT**

No amendments to this Agreement shall be effective unless it is in writing and signed by the Parties or their authorized representatives.

## **13. WAIVER**

Save where expressly set out herein to the contrary, a waiver of any term or provision of this Agreement shall only be effective if given by a written instrument executed by the Party waiving the provision of this Agreement and no forbearance, indulgence or inaction by any Party at any time to require performance of any of the provisions of this Agreement nor any single or partial exercise of any such right shall, in any way, affect, depreciate or prejudice the right of such Party to require performance of that provision in the future.

## **14 COSTS**

Each Party shall bear its own cost of or in connection with the preparation, negotiation and execution of this Agreement.

## **15 COUNTERPARTS**

This Agreement may be executed in any number of counterparts, each of which when executed and delivered shall be an original, but all the counterparts shall together constitute one and the same instrument.

## **16 SEVERABILITY**

16.1 If any provision or part-provision of this Agreement is or becomes invalid, illegal or unenforceable, it shall be deemed modified to the minimum extent necessary to make it valid, legal and enforceable. If such modification is not possible, the relevant provision or part-provision shall be deemed deleted. Any modification to or deletion of a provision or part-provision under this clause shall not affect the validity and enforceability of the rest of this Agreement.



16.2 If one Party gives notice to the other of the possibility that any provision or part-provision of this Agreement is invalid, illegal or unenforceable, the parties shall negotiate in good faith to amend such provision so that, as amended, it is legal, valid and enforceable, and, to the greatest extent possible, achieves the intended commercial result of the original provision.

## **17 CONFIDENTIAL INFORMATION**

17.1 A Party shall not intentionally disclose or allow to be disclosed to any third party any Confidential Information concerning the other Parties or any information obtained under this Agreement and in furtherance to the execution of the Mini-Grid Project unless:

17.1.1 the disclosure is expressly assented to in writing by the Party to which the Confidential Information belongs;

17.1.2 the disclosure is subject to a legal obligation of disclosure,

17.2 Each Party, after consultation with the others, shall adopt reasonable procedures to preserve the Confidential Information of the other Parties.

17.3 No information shall constitute Confidential Information if:

17.3.1 the information is generic in nature, or have at the relevant time become public knowledge or has been in the public domain, other than as a result of disclosure by the Parties or their representative;

17.3.2 the information has at the relevant time become, already in the possession of the Parties free from any obligation of confidentiality to either of the Parties or any other person and has not been acquired by any person in breach of any obligations of confidentiality.

17.3.3 the information is required to be disclosed by law or order of any court, tribunal or agency of competent jurisdiction or by any governmental body, department or agency having jurisdiction or it or by any equivalent laws or regulations of institutions or other equivalent authorities in jurisdictions outsider Nigeria; or

17.3.4 the information is expressly stated in writing to be non-confidential.



## **18 CONFLICT OF INTEREST**

The Parties to this Agreement declare that there is no existing conflict of interest which would affect their entry into this Agreement.

## **19 ENTIRE AGREEMENT**

19.1 Each Party acknowledges that, in entering into this Agreement, it does not rely on, and shall have no remedy in respect of, any statement, representation, assurance or warranty of any person other than as expressly set out in this Agreement.

19.2 Nothing in this Clause 17 operates to limit or exclude any liability or fraud.

## **20 SUCCESSORS AND ASSIGNS**

This Agreement is binding upon, and inures to the benefit of, the parties and their respective successors and assigns.

## **21 GOVERNING LAW AND DISPUTE RESOLUTION**

### ***Governing Law***

21.1 This Agreement and any disputes or claims arising out of or in connection with its subject matter or formation (including non-contractual disputes or claims) are governed by and construed in accordance with the laws of the Federal Republic of Nigeria.

### ***Dispute Resolution***

21.2 Except as otherwise provided in this Agreement, any dispute of whatever nature which may arise between all or any of the Parties out of or in connection with this Agreement shall be dealt with in accordance with the procedure set out in Annex 10 (Dispute Resolution Mechanism) of the Mini-Grid Regulations.

21.3 The Parties acknowledge and agree that, except as expressly provided in this Agreement, the provisions of Annex 10 (Dispute Resolution Mechanism) of the Mini-Grid Regulations constitute the sole remedy of the Parties.

***IN WITNESS*** whereof this Agreement was executed the day and year first above written.

For **[MINI-GRID OPERATOR]**

Signed at ..... on this ..... day of ..... 2016.

By:

Name:

WITNESSES

1. \_\_\_\_\_

2. \_\_\_\_\_

For **[CONNECTED COMMUNITY /REPRESENTATIVE OF CONNECTED COMMUNITY]**

Signed at ..... on this ..... day of ..... 2016.

By:

Name:

WITNESSES

1. \_\_\_\_\_

2. \_\_\_\_\_

**ANNEX 13:**  
**MINI-GRID CUSTOMER CONTRACT TEMPLATE**

<b>Contract No. XXX</b> <b>Type of contract:</b> (residential/commercial/industrial/special)
--

**THIS AGREEMENT** is made on this [DATE]

**BETWEEN:**

[NAME], a company duly incorporated under the laws of the Federal Republic of Nigeria and having its registered office at [OFFICE ADDRESS] hereinafter called the “**Mini-Grid Operator**” which expression shall where the context so admits include its successors-in-title,

**AND**

**Surname:** \_\_\_\_\_ **First name:** \_\_\_\_\_

**Phone 1:** \_\_\_\_\_ **Phone 2:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**Address:** \_\_\_\_\_ **ID No.:** \_\_\_\_\_

**Village:** \_\_\_\_\_ **LGA:** \_\_\_\_\_ **State:** \_\_\_\_\_

Hereinafter called “**the Client**”.

In this Agreement, the **Mini-Grid Operator** and the **Client** are referred to collectively as “Parties” and individually as “Party”.

The **Client** agrees to the terms and conditions of this contract and subscribes to the electricity supply service provided by the **Mini-Grid Operator** as described below.

**ARTICLE 1**

**CONTRACT DURATION**

1.1 This contract shall commence on the date of this contract and shall continue until terminated by either Party upon the occurrence of a Party committing a breach of this contract, which in the case of a breach that is capable of remedy, has not been remedied within [30] days (or such other period as may be agreed between the Client and the Mini-Grid Operator).

**ARTICLE 2**

**ELECTRICITY SERVICE SUBSCRIPTION**

2.1 The **Client** agrees to have subscribed to the electricity supply service [<name service>] with the following limits

Electrical power:           max. .... Watt (W)

Electrical energy: max. .... kilowatt hours (kWh) per day/week/month  
(Alternatively: Usage time: max. .... hours (h) per day/week/month at max. electrical power)

### **ARTICLE 3**

#### **QUALITY OF ELECTRICITY SUPPLY**

3.1 The electricity supplied by the **Mini-Grid Operator** has a nominal electrical voltage of ..... Volts (V) single-phase and ..... V three-phase at a nominal electrical frequency of ..... Hertz (Hz). The maximum voltage fluctuations will be  $\pm$  ... % of the nominal value and the maximum frequency fluctuations will be  $\pm$  ... % of the nominal value.

3.2 The electricity is supplied by the means of:

Type of (prepaid) electricity meter \_\_\_\_\_

Number of phases: \_\_\_\_\_

3.3 The meter will be installed at (inside/outside of the **Client's** house, distribution grid pole, others).

3.4 The **Client** undertakes to ensure the safety of the device and to be held liable for any damage except for damages which are not due to the fault of the Client or are beyond the Client's control.

3.5 The **Client** agrees to grant the **Mini-Grid's** staff or representatives reasonable access to his/her premises to inspect, maintain, repair or replace the metering device provided that the Mini-Grid Operator gives the Client at least 3 days' notice of its intention to undertake such activities on the metering device.

### **ARTICLE 4**

#### **INDOOR INSTALLATIONS**

4.1 The **Mini-Grid Operator** agrees to finance the cost for the procurement and installation of the following electrical equipment within the **Client's** premises within ..... days after signing of this contract:

*List of material*

*e.g.: XX m of cable type XXX*

*XX energy saving light bulbs XX W*

*XX bulb sockets*

*XX switches*

*XX plug sockets*

*XX joint boxes*

*Accessories [...]*

Total cost of indoor installation package (procurement and installation):

\_\_\_\_\_ NGN

4.2 The **Client** agrees to grant the Mini-Grid Operator and its electricians reasonable access to his/her premises to undertake the installations, provided that the Mini-Grid Operator gives the Client at least 3 days' notice of its intention to undertake such installations.

4.3 The indoor installation material(s) will remain the sole property of the **Mini-Grid Operator** until the **Client** has paid in full the Mini-Grid Operator for such material(s).

4.4 The **Client** agrees to grant the **Mini-Grid's** Operator's staff and, representatives reasonable access to his/her premises for to inspect, maintain, repair or replace the indoor installation equipment at any time, provided that the Mini-Grid Operator gives the Client at least 3 days' notice of its intention to undertake such activities.

## ARTICLE 5

### UPFRONT PAYMENT

5.1 Upon execution of this contract, the **Client** agrees to make an upfront payment to the **Mini-Grid Operator** consisting of:

Security deposit: \_\_\_\_\_ NGN

Contribution to indoor installations investment: \_\_\_\_\_

NGN

Total: \_\_\_\_\_ NGN

5.2 The Parties agree that the security deposit shall be used to offset any payments due from the Client to the **Mini-Grid Operator**.

## ARTICLE 6

### ENERGY PAYMENTS

6.1 Upon commencement of the electricity supply service, the **Client** agrees to make the following payments to the **Mini-Grid Operator**:

a) Reimbursement to indoor installations investment: \_\_\_\_\_ NGN per week/month

b) Prepayment of electricity consumption: \_\_\_\_\_ NGN per week/month

Total: \_\_\_\_\_ **NGN per week/month**

6.2 The payment terms are as follows:

*[For the reimbursement for indoor installations investments, the Parties agree that the Client shall make the payments set out above on the 5<sup>th</sup> day of each month ("**Payment Date**"). Where the 5<sup>th</sup> day is not a working day, the Client shall make the payment, on the next working day.]*

## ARTICLE 7

### MODE OF OPERATION

7.1 Short description of mode of operation of power station

7.2 Description of mode of operation of the electricity meter (Exceeding power and energy limits, payment procedure, balance uploading, etc.)

7.3 The electricity supply can be subject to temporary disturbances due to various events which include but are not limited to severe climatic condition, incident, vandalism and maintenance of the system.

7.4 The Client acknowledges that the occurrence of any of these events will affect his/her access to electricity and quality of electricity received from the Mini-Grid Operator.

7.5 Upon the occurrence of any of the events in Article 7.3 above the Parties agree that the **Mini-Grid Operator** shall not be responsible for providing back-up electricity supply solution to the **Client** or any additional protection electrical appliances used by the **Client**.

7.6 Where the Client fails to make the required payment in Article 6.1 (b) by the Payment Date, the Client and the Mini-Grid Operator shall negotiate credit extension terms.

7.7 Where on three consecutive Payment Dates, the Client fails to make the indoor installation investment payments in Article 6.1(b), the Mini-Grid Operator may proceed to remove the indoor installations provided that the Mini-Grid Operator has given the Client at least one month's notice of its intention to the Client's address.

## **ARTICLE 8**

### **ELECTRICITY THEFT**

8.1 Any attempt of electricity theft by **the Client** will be persecuted and leads to immediate termination of this contract.

## **ARTICLE 9**

### **LIABILITY OF THE MINI-GRID OPERATOR**

9.1 Subject to the limitations described in this clause, the **Mini-Grid Operator** is liable for any loss, liability or expense, which the **Client** may suffer or incur as a direct result of any negligence or breach of this contract by the **Mini-Grid Operator**.

9.2 The **Mini-Grid Operator** is not liable to the extent that the **Client's** equipment caused or contributed to the problem.

9.3 The **Mini-Grid Operator** is not liable for any interruption of the electricity supply if the interruption was caused by events or circumstances beyond the control of the Mini-Grid Operator.

9.4 **The Mini-Grid Operator** is not liable for any damage caused to the **Client** due to improper use of electricity or electrical equipment.

## **ARTICLE 10**

### **GOVERNING LAW**

10.1 This Agreement and any disputes or claims arising out of or in connection with its subject matter or formation **including** non-contractual disputes or claims) are governed by and construed in accordance with the laws of the Federal Republic of Nigeria.

## **ARTICLE 11**

### **DISPUTE RESOLUTION**



11.1 Except as otherwise provided in this Agreement, any dispute of whatever nature which may arise between all or any of the Parties out of or in connection with this Agreement shall be dealt with in accordance with the procedure set out in Annex 9 (Complaints Procedure Guidelines) or Annex 10 (Dispute Resolution Mechanism) of the Mini-Grid Regulations.

*IN WITNESS* whereof this Agreement was executed the day and year first above written.

For **[MINI-GRID OPERATOR]**

Signed at ..... on this ..... day of ..... 2016.

By:

Name:

WITNESSES

1. \_\_\_\_\_

2. \_\_\_\_\_

For **[CLIENT]**

Signed at ..... on this ..... day of ..... 2016.

By:

Name:

WITNESSES

1. \_\_\_\_\_

2. \_\_\_\_\_

## ANNEX 14

### ASSET HANDOVER DOCUMENT AND COMPENSATION CONFIRMATION SHEET

#### 1.0 Integration of Mini-Grid Assets into Distribution Network

1.1 I, [NAME], the Mini-Grid Operator with Permit number [ ], operating the Mini-Grid in (state/town/local government/village) hereby declare that following the notification of the DisCo's decision to re-integrate the Mini-Grid into the Distribution Network pursuant to Section 19 NERC Mini-Grid Regulations, 2016, that the assets in Table A below have been handed over to \_\_\_\_\_ (name of DisCo).

1.2 We, \_\_\_\_\_ (name of DisCo), duly represented by \_\_\_\_\_ (name of individual or company) confirm receipt of the assets in Table A and accept ownership of same. We confirm that we will transfer the Compensation stated below to a bank account designated by the Mini-Grid Operator within 10 (ten) days.

**Table A**

Name of Asset	Number of Units	Depreciated Value of Unit	Total Depreciated Value of Asset	Total Value of Undepreciated Assets
TOTAL AMOUNT (in NGN)				

*Please fill where applicable*

1.3 I, the representative of the Mini-Grid Operator, \_\_\_\_\_ (name of individual or company) hereby confirms that a grant of \_\_\_\_\_ (currency and amount) was received on \_\_\_\_\_ (date) from \_\_\_\_\_ (name of individual, company or government body). The following asset costs in Table B below have been provided for by the grant:

**Table B**

Name of Asset	Asset Cost	Amount of Grant


**2.0 Compensation**

2.1 I, the Mini-Grid Operator, hereby confirm receipt of compensation from \_\_\_\_\_ (name of DisCo) equal to the remaining depreciated value of my assets (including the construction and development cost) plus 50% of my revenue generated from my Mini-Grid commencing 12 (twelve) months prior to the date of connection of the Mini-Grid to the Distribution Network.

2.2 Revenue generated within the last 12 (twelve) months prior to the date of integration of the Mini-Grid to the Distribution Network: \_\_\_\_\_ NGN.

2.3 Amount of compensation for the revenue generated within the last 12 (twelve) months prior to the date of connection of the Mini-Grid to the Distribution Network: \_\_\_\_\_ NGN.

2.4 TOTAL COMPENSATION = Total depreciated value of asset + Total undepreciated value of asset + Compensation for the revenue generated = \_\_\_\_\_ NGN.

2.5 I hereby confirm that assets financed via a grant, shall remain property of the Community, which is represented by \_\_\_\_\_ (name of individual or company), as the Community’s legally authorised representative, and no compensation shall be due on such assets.

**3.0 Notification to NERC**

3.1 Upon execution, the Mini-Grid Operator and the DisCo shall each forward a copy of this document to NERC for information purposes.

3.2 The DisCo shall forward a copy of this document to NERC for notification purposes.

Account Name (Mini-Grid Operator account) \_\_\_\_\_

IBAN (if applicable) \_\_\_\_\_

BIC (if applicable) \_\_\_\_\_

Bank Name \_\_\_\_\_

Account Number \_\_\_\_\_

Sort Code \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
Signature Mini-Grid Operator

\_\_\_\_\_  
Signature DisCo

**ANNEX 15**

**TARIFF CALCULATION TOOL BASED ON THE MYTO METHODOLOGY**

**Please ask the Commission to forward the Excel spreadsheet:**

**“Tariff calculation tool based on the MYTO methodology**