

NIGERIAN ELECTRICITY REGULATORY COMMISSION REGULATION FOR MINI-GRIDS 2016

REGULATION NO: NER/-R-110/17

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.

Arrangement of Sections

CHAPTER I

GENERAL

- 1. Short Title
- 2. Commencement
- 3. Interpretation
- 4. Application of the Regulations

CHAPTER II

CHARACTERISTICS OF MINI-GRIDS

- 5. Structure/Arrangement
- 6. Geographical Delineation of Distribution Systems

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 power Generation Capacity
- 8. Isolated Mini-Grids up to 100 kW of Distributed Power
- 9. Interconnected Mini-Grids
- 10. Application procedure for a Permit
- 11. Obligations of the Mini-Grid Operator
- 12. Accounts of the Mini-Grid Operator
- 13. Inspection of accounts

CHAPTER IV

OPERATION OF THE MINI-GRID

- 14. Installation and maintenance of the Mini-Grid
- 15. Quality of Service
- 16. Safety
- 17. Environmental protection
- 18. General Provision for Connection to Customers

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

CHAPTER V

COMMERCIAL ARRANGEMENT

20. Determination of Tariffs and Other Charges

CHAPTER VI

MISCELLANEOUS

- 21. Exclusivity Period and Site Reservation for Project Development Purposes
- 22. Procedure for Securing Compliance with Permit or Tripartite Contract as applicable
- 23. Proceedings before the Commission
- 24. Complaint Procedure
- 25. Dispute Resolution
- 26. Amendment or repeal

LIST OF ANNEXES

FORMS FOR COMMUNICATION WITH NERC

- Annex 1: Agreement Form for an Exclusive Project Development Period at a Site
- Annex 2: Registration form for Mini-Grids with a Distributed Power of up to 100 kW
- Annex 3: Application Form for Mini-Grid Permit
- Annex 4: Reporting Form

GUIDELINES

- Annex 5: Application Proceedings for Permit
- Annex 6: Health and Safety Guidelines (including Recommendations on Environmental Protection)
- Annex 7: Technical Requirements for Registered Mini-Grid Operators
- Annex 8: Recommendations for Calculation of Usage Charges by the Distribution Licensee in Interconnected Mini-Grids
- Annex 9: Complaints Procedure Guidelines
- Annex 10: Dispute Resolution Mechanism

CONTRACT TEMPLATES

- Annex 11: Tripartite Contract between Interconnected Mini-Grid Operator, Distribution Licensee and Connected Community
- Annex 12: Contract Template between Isolated Mini-Grid Operator and Community
- Annex 13: Mini-Grid Customer Contract Template
- Annex 14: Asset Handover Document and Compensation Confirmation Sheet

CALCULATION TOOLS

Annex 15: Tariff calculation tool based on the MYTO methodology

CHAPTER I GENERAL

Short Title

This regulation may be cited as the **Nigerian Electricity Regulatory Commission Mini- Grid Regulation, 2016**.

2. Commencement

- (1) This Regulation shall come into force on the date on which it is approved by a resolution of the Commission.
- (2) This Regulation 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 this regulation, 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 Licensee;

"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 Licensee" 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 this Regulation, the term IEDN shall exclude Mini-Grids;

"Independent Electricity Distribution Network Operator" or "IEDNO" means an IEDN operator Licensed by the Commission;

"Interconnected Mini-Grid" means a Mini-Grid which is connected to a Distribution Licensee's network;

"Isolated Mini-Grid" means a Mini-Grid which is not connected to any Distribution Licensee's network;

"Letter of Intent ("Lol")" means

"Licence" means a Licence granted by the Commission under the Act;

"Licensee" 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 Licensee's network. Within this Regulation, 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 Licensee 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 Licensee's Network with an existing but poorly supplied or non-functional distribution system;

"Unserved Area" means an area within a Distribution Licensee's Network without an existing distribution system otherwise called off-grid.

- (2) Unless otherwise specified, in this regulation:
- (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 this regulation 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 this regulation 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) This regulation 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 Licensees 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 Licensee, 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 fulfillment of the following conditions:
 - (a) an application has been received by the Commission for the intended area;
 - (b) confirmation that based on the Distribution Licensee's expansion plans approved by the Commission the Mini-Grid activities will not interfere with the expansion plans into the designated Unserved Area;
 - (c) written consent of the Distribution Licensee of the intended area where the proposed operational area of the Mini-Grid Developer will be within the five year expansion plan of the Distribution Licensee;
 - (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) all necessary land for construction and installation of all assets has been acquired or leased and all other necessary permits have been granted to the Mini-Grid Developer;
 - (g) the tariff is calculated based on the MYTO methodology and approved by the Commission; and
 - (h) 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) Apply 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 Licensee 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 Licensee and Connected Community and approved by the Commission;
 - (c) the Mini-Grid Developer, the Distribution Licensee 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 Licensee'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 Licensee's network (if applicable);
 - (iv) the availability of stable nominal voltage and effective system protection at the Connection Point of the generator with the Licensee's Distribution Network (if applicable);
 - (v) the tariff for the purchase of electricity from the Distribution Licensee'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 Licensee.

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 fulfill 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 Licensee'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 independent 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 this regulation 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 Licensee's Network to an Isolated Mini-Grid operated under a Permit and Re-integration of Interconnected Mini-Grid into a Distribution Licensee'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 Licensee 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 Licensee 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 Licensee 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 Licensee 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 Licensee 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

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 Licensee's Network to an Isolated Mini-Grid operated under a Permit and Re-integration of Interconnected Mini-Grid into a Distribution Licensee'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 Licensee 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 Licensee 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 Licensee 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 Licensee 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 Licensee 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 Licensee 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 Licensee 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.

HAPTER V COMMERCIAL ARRANGEMENT

20. Determination of Tariffs and Other Charges

Licensee Distribution Network Usage Charges

- (1) The Interconnected Mini-Grid Operator shall pay the Distribution Licensee a usage charge which shall be agreed upon between the Interconnected Mini-Grid Operator and the Distribution Licensee and approved by the Commission.
- (2) Where the Interconnected Mini-Grid Operator and the Distribution Licensee 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) Technical 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 Licensee 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 Licensee 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 Licensee. The Mini-Grid Developer is recommended to consult the Commission or the Distribution Licensee before signing the initial exclusivity agreement with the community.
- (5) Notwithstanding the right granted in S. 21(1)(a), the Distribution Licensee 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 this regulation 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 this regulation.

Table 6: Generation Licences and Permits Issued in 2017Q3

| | Applicant ON-GRID LICENCE | Capacity (MW) | Location |
|----|--|---------------|--|
| 1. | First Independent Power Company Limited | 360 | Okoloma, Port Harcourt |
| 2. | Walter-Smith Petroman Oil Limited | 300 | Ohaji, Egbema |
| 3. | The Shell Petroleum Development Company of Nigeria Limited (Renewal) | 650 | Afam VI Rivers State |
| 4. | MGIG Independent Power Generation Company Limited | 528 | Adiabor, Calabar |
| 5. | Cecusafe Limited | 50 | Usho, Ondo |
| 6. | Orocevam Limited | 150 | Paiko, Niger |
| 7. | Amber Energy & Power Generation Company Limited | 100 | Obayantor, Edo |
| 8. | Jolomi Engineering Services Limited | 500 | Ughelli, Delta |
| 9. | Anjeed Kafanchan Solar Limited (Transfer/Change in shareholding) PERMITS | 100 | Kaduna |
| 1. | Federal Airport Authority of Nigeria | 9.5 | Nnamdi Azikiwe International Airport, Abuja |
| 2. | WACOT Rice Nigeria Limited | 3.6 | Nnamdi Azikiwe International Airport, Abuja |
| 3. | The Shell PDC of Nigeria Limited | 50 | Sea Eagle FPSO, Kolo Creek |
| 4. | The Shell PDC of Nigeria Limited | 6 | Kolo Creek Oil & NAG Manifold, Okoloma |
| 5. | The Shell PDC of Nigeria Limited | 2 | Okoloma |