



Public Utilities
Regulatory Authority
Equity in development

NET METERING GUIDELINES

***Connecting Renewable Energy Generating Facilities to
the Distribution Network in The Gambia***

APRIL 2025

94, Kairaba Avenue, P. O. Box 4230 Bakau, The Gambia
Tel. (220) 4399601 / 4399606 Fax: (220) 4399905
E.mail pura@pura.gm Website www.pura.gm

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1. Introduction

These Guidelines are in accordance with provisions of the Renewable Energy Act 2013, Section 3 (2) and 12 which specify the mandates of the Authority in the promotion of renewable energy development and for related matters.

Net Metering is a billing related mechanism designed to encourage electricity consumers to supplement their purchase of electricity with grid-connected renewable energy self-generation, thus, the customer becomes a customer-generator. Under the net metering billing mechanism, renewable energy generating facility owners are credited for electricity the facility supplies to the grid, and this credit is set off against electricity purchased from the Distribution Utility.

Net metering is designed for applications where the renewable energy generation is not being used as a back-up to the main source of power supply. Instead, the excess energy is supplied to the Distribution Utility, on the assumption that the amount of energy supplied to the grid will not exceed the amount purchased over an annual tracking period. The motivation of the renewable energy generating facility owner in net metering is generally power cost reduction and/or climate change mitigation. Net metering is not designed to be an income generating mechanism for the renewable energy generating facility owner.

These Guidelines are also in line with the Electricity Act 2005, Mini-Grid Regulations, Feed-in-Tariff Rules and Procedures, the National Electricity Grid Code, applicable International Electrotechnical Commission (IEC) and Institute of Electrical and Electronic Engineering (IEEE) standards and other international best practices.

2. Definitions

Authority

Refers to the Public Utilities Regulatory Authority (PURA)

Bi-directional meter

Refers to a meter that measures the active energy (Wh) flow in both directions (import and export) and displays both imported and exported energy in separate registers.

Billing Cycle

Refers to a period of 5 years over which energy usage and generation are measured, and billing is processed on monthly basis by the Distribution Utility and after which net energy will be written off. The cycle defines how often customers are billed for their net energy consumption over the 5 years, which is the difference between what they consume from the grid and what they generate and feed back into it.

Connection Agreement

Refers to an agreement between the Prosumer and a Distribution Utility that sets out the rights, obligations and liabilities of both parties under the net metering scheme.

Net Metering

Refers to a methodology under which renewable energy generated by a Customer-generator and delivered to the distribution facilities as measured by an appropriate device to offset electric energy supply by the Distribution Utility to the Customer-generator during the applicable billing period.

Prosumer

Refers to any Customer of a Distribution Utility that generates electricity on the Customer's side of the billing meter with renewable energy generating facility that is primarily intended to offset part or all of the Customer's electricity consumption.

Renewable energy generating facility

Refers to an electrical energy generation system that uses renewable energy resources with an inverter facility that is electrically connected directly to a distribution network and for which

the total output of the facility is distributed and utilized locally without any requirement for use of the national interconnected transmission system.

Inter-connection

Refers to the connection of renewable energy generating facility to the distribution network

Billing Period

Refer to the period (usually one month) in which a Distribution Utility measures and calculates the energy consumed by a customer and the energy produced by their renewable energy generating facility (such as solar panels).

Settlement Period

Refer to the end of a billing cycle, which is the end of every 5 calendar years.

3. Objectives

The objectives of these guidelines are to;

- 3.1. Provide conditions for the inter-connection of renewable energy generating facility to the distribution network;
- 3.2. Promote renewable energy through the installation of renewable energy generating systems and to utilize the generated electricity at the consumer level through net metering arrangement;
- 3.3. Contribute to the reduction of carbon emissions by enabling the use of clean energy resources.
- 3.4. Improve access to energy for under-served communities by leveraging distributed energy generation models.
- 3.5. Establish a fair and transparent billing system for consumers with net metering, ensuring accurate energy - to - energy compensation for energy fed into the grid.

4. Scope

These guidelines apply to licensed distribution utilities and all electricity consumers in The Gambia who wish to participate in the net metering program. They provide a framework for the installation, operation, and billing procedures for renewable energy generation systems connected to the national grid, ensuring:

- Proper registration of systems.
- Transparent and efficient calculation of energy credits.
- Compliance with technical and safety standards for installations.
- Regular monitoring of generation and consumption data.
- Clear procedures for dispute resolution related to energy credits.

These guidelines are applicable to consumers participating in net metering schemes as defined by the Distribution Utility customer categories.

5. General Conditions

- 5.1. The Distribution utility shall allow connectivity to only eligible Renewable Energy Generating Facility, on first come first serve basis, subject to technical operational constraints.
- 5.2. A Prosumer who seeks a connection shall be subject to all applicable laws and bound by the terms and conditions of the Distribution Utility's Conditions of Service.
- 5.3. A Prosumer and the Distribution Utility shall enter into a Connection Agreement that is consistent with these Guidelines and The Gambia Electricity Grid Code.
- 5.4. The signed Connection Agreement shall be filed with the Authority by the Distribution Utility within ten (10) working days.
- 5.5. Only eligible renewable energy generating facilities between twenty (20Kw) and one hundred kilowatts (100Kw) and that are sized primarily to offset part or all of prosumer's own electrical requirements will be suitable for Net Metering.
- 5.6. The prosumer shall be responsible for safe operation, maintenance and rectification of any defect of the Renewable Energy Generating Facility up to the point of Inter-connection beyond which the responsibility of safe operation, maintenance and rectification of any defect in the distribution network, including the Bi-directional meter shall be the responsibility of the Distribution Utility.

6. Eligibility Criteria

A prosumer shall be considered eligible when the following clauses are complied with:

- 6.1. The prosumer should be a current customer of the Distribution Utility that is responsible for the supply of electricity in the area;
- 6.2. Electricity produced ONLY from renewable energy sources are eligible;
- 6.3. The prosumer must either be the legal owner of a premise or have the legal permission from the owner(s) or their legal representative(s) for installing the renewable energy generating facility in a premise;
- 6.4. The prosumer shall consume the electricity at the point of renewable energy electricity generation, and only export the excess amount to the grid;
- 6.5. Interconnection standards shall comply with the interconnection rules and standards set out in these Guidelines, The Gambia Electricity Grid Code and other relevant standards by the Distribution Utility;
- 6.6. Determination of the renewable energy system capacity shall comply with Section (6) of these Guidelines.

7. Application Procedure

The eligible prosumer, who intends to install and/or connect their renewable energy generation facility to a Distribution Utility grid and benefit from net metering, shall follow the procedure mentioned in this section

- 7.1. The eligible prosumer shall submit an intent letter to the Distribution Utility and copy the Authority;
- 7.2. The eligible prosumer shall apply in writing for a Net Metering Agreement to the Distribution Utility. The eligible prosumer shall use the application template provided in Annex I of these guidelines. Only completed applications with the necessary supporting documents shall be considered acceptable by the Distribution Utility;

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- 7.3. An eligible prosumer in applying for connection to the Distribution Utility shall;
- 7.3.1. ensure that the design and installation of the renewable energy generating facility is in accordance with the Gambia Electricity Grid Code to guarantee the safety and security of both the renewable energy generating facility and the distribution network;
 - 7.3.2. ensure that the electrical installations at the premises to be connected are carried out by an electrician duly certified under the Electrical Wiring Regulations and National Standards;
 - 7.3.3. obtain from the electrician a duly signed and sealed Installation Completion Certificate;
 - 7.3.4. prior to the connection of the renewable energy generating facility to the distribution network, install an isolation device and a protection device approved by the Distribution Utility;
 - 7.3.5. ensure the automatic disconnection of the renewable energy generating facility from the distribution network, in the event of a power outage on the distribution network or any abnormal operation of the distribution network.
- 7.4. Upon receiving and acknowledging the application, the Distribution Utility shall conduct a field survey within 10 working days to check and verify compliance of the renewable energy generating facility components and interconnection parameters with The Gambia Electricity Grid Code or any other standards that may be developed by the relevant authority.
- 7.5. If the Distribution Utility finds the renewable energy generating facility system completed and in conformity with the Gambia Electricity Grid Code, the Distribution Utility shall issue an approval for net metering to the eligible prosumer;
- 7.6. If the Distribution Utility's system must undergo any modification in order to install and connect the eligible prosumer's renewable energy generating facility, the applicant shall bear all incurred costs.

- 7.7. If the Distribution Utility found that the renewable energy generating facility does not comply with The Gambia Electricity Grid Code or any other standard that may be developed by relevant Authority, the Distribution Utility shall notify the applicant of non-approval for net metering, specifying the reasons for disapproval.
- 7.8. The Distribution Utility shall file with the Authority a net metering decision made on any applications supported with field survey report;
- 7.9. The Distribution Utility shall process applications and notify applicants within one month from the date of receipt of the application;

8. Metering Arrangement

The metering arrangement shall be made according to the following conditions:

- 8.1. A Distribution Utility shall upon signing a Connection Agreement with an Authorized Prosumer, install and maintain the necessary equipment required for bi-directional flow of electricity (capable of recording import, export and net energy consumption);
- 8.2. The Distribution Utility shall provide a non-discriminatory bi-directional electricity supply service to all Authorized prosumers;
- 8.3. The bi-directional supply shall be connected through an appropriate service connection and protective device that is in accordance with the applicable standards;
- 8.4. The net meter shall conform to the specifications in the Gambia Electricity Grid Code and shall be type approved by relevant authority;
- 8.5. The Distribution Utility shall be responsible for procuring, testing, installing (and replacing the existing meters), maintaining and reading the net meters.
- 8.6. The price of the meters and other relevant costs shall be borne by the prosumer;
- 8.7. If the prosumer wishes to procure the bi-directional Meter, he/she may procure such meter and present the same to the Distribution Utility for testing and installation.

The Prosumer or Distribution Utility, who so ever if desires, may install check meter at their own cost;

- 8.8. All meters shall be installed at an accessible location of the Premises to facilitate easy access for meter reading by the Distribution Utility;
- 8.9. A Prosumer shall provide safe and reasonable access to his/her premises for the Distribution Utility to undertake work related to the bi-directional flow of electricity;
- 8.10. Where a Prosumer for a bi-directional connection fails to comply with Clause 8.9, the Distribution Utility may:
 - 8.10.1. in the case of a prosumer already connected to the distribution network, disconnect bi-directional electricity supply to the Customer; or
 - 8.10.2. in the case of an applicant for a new connection, refuse to connect the applicant to the distribution network;
- 8.11. When a Prosumer or an applicant complies with Clause 8.9, the Distribution Utility shall reconnect or connect bi-directional supply of electricity.
- 8.12. The Distribution Utility shall:
 - 8.12.1. ensure that the accuracy of the bi-directional meter is maintained throughout its useful life and in accordance with the applicable metering code;
 - 8.12.2. test and if necessary, calibrate the prosumer's bi-directional meter periodically;
 - 8.12.3. replace bi-directional meter when they have been in service as per the manufacturer's recommendation at the cost of the Distribution Utility;
 - 8.12.4. seal any bi-directional meter installed at the Prosumer's premises in the presence of the Prosumer or its representative, who shall be satisfied that the seal is firmly in place; and

- 8.12.5. where the bi-directional meter becomes defective, replace it or provide an appropriate alternative to restore electricity supply to the prosumer and electricity supply to the Distribution Utility.
- 8.13. A Prosumer shall not:
- 8.13.1. use any electrical equipment or appliance that shall interfere with, cause damage to or degrade the quality of electricity supply to other Customers on the distribution network;
 - 8.13.2. increase the contracted electricity supply without the consent of the Distribution Utility; or
 - 8.13.3. intentionally interfere or knowingly allow interference with the distribution network, meter or any equipment that is used for the supply of electricity to it;
 - 8.13.4. tamper with or break the seal on the bi-directional meter;
- 8.14. The Prosumer shall perform regular scheduled maintenance to the renewable energy generating facility as outlined by the manufacturer or as per the terms of the Connection Agreement in order to ensure that connection devices, protection systems, and control systems are maintained in good working condition and in compliance with all applicable laws.
- 8.15. The maintenance and operation of the renewable energy generating facility shall be conducted in a manner that ensures the safety and security of both the renewable energy generating facility and the distribution network.
- 8.16. In the event that the Distribution Utility determines that the renewable energy generating facility causes damage that adversely affect other distribution network Customers or the Distribution Utility's assets, the facility shall be disconnected immediately from the distribution network upon direction from the Distribution Utility and the Prosumer shall correct the problem at its expense.

9. Tariff Structure

The tariff structure, according to which the utility will prepare the bill, settle accounts either via proper adjustment of by collecting dues at the end of every billing period and at the end of the settlement period, are described in this section:

- 9.1. For each billing period, the Utility conducts the energy accounting and appropriate adjustment based on the tariff order issued by the Authority;
- 9.2. If the tariff is changed within a settlement period, then the changed tariff will be considered for energy accounting for the remaining billing cycles.
- 9.3. The electricity bill for prosumers will be calculated based on any of the three possibilities described below:
 - 9.3.1. If the amount of imported and exported electricity is equal, then the prosumer shall pay only the fixed charges;
 - 9.3.2. After adjusting with any carryover credit from the previous billing period (if any), if the prosumer remains a net exporter, then the fixed charges shall be deducted from the excess kilowatt hours before carrying over to the next billing period;
 - 9.3.3. After adjusting with any carryover credit from the previous billing period (if any), the prosumer becomes a net importer, then prosumer shall pay for the additional energy consumed;
- 9.4. At the end of the settlement period (5 years)) any excess kWh supplied to the Distribution Utility shall be written off and a new settlement cycle shall begin or start.

10. Compensation and Billing

- 10.1.** The billing of electricity shall be based on kWh to kWh on monthly basis; The Distribution Utility shall prepare and send the electricity bill to the prosumer for each billing period.
- 10.2.** The price of the electricity use for net metering shall be the end-user tariff determined by the Authority;
- 10.3.** If the amount of electricity units imported by the prosumer during any billing period exceeds the amount exported, the prosumer will be considered net importer.
- 10.4.** If the amount of electricity units exported by the prosumer during a billing period exceeds the amount imported, the prosumer will be considered net exporter. In that case, after adjusting with the carryover units (if any) from the previous billing cycle of the same settlement period, either accumulated kilowatt hours will be carried over to the next billing cycle.
- 10.5.** For each billing period, the Distribution Utility shall prepare an energy statement, which shall separately mention:
 - 10.5.1.** The amount of electricity imported by the prosumer from the Utility grid;
 - 10.5.2.** The amount of electricity exported to the grid by the installed renewable energy generating facility, and;
 - 10.5.3.** Net amount of electricity billed to be paid by the prosumer or net credited kWh to roll over to the next billing period;
- 10.6.** The settlement period for a billing cycle shall be at the end of each (5) five calendar year;
- 10.7.** At the end of the settlement period (5 years) any excess kWh supplied to the Distribution Utility shall be written off and a new billing cycle shall begin.

- 10.8. At the end of settlement period, if the prosumer is net importer of electricity, then the prosumer shall pay for the net imported amount of electricity to the Distribution Utility.

11. Monitoring and Reporting Obligations

- 11.1. The Distribution utility shall file with the Authority copy of signed Connection Agreement relating to any net metering arrangement.
- 11.2. The Distribution Utility shall submit an annual Net Metering report to the Authority by 31st January of each year. The report shall include submission of duly filled reporting template in Annex II of these guidelines and the following information for the previous calendar year:
- 11.2.1. the total number of Net-Metered prosumer facilities, by resource type;
 - 11.2.2. the total rated generating capacity of Net-Metered Customer-generator facilities, by resource type;
 - 11.2.3. the total number of kWh received from Net-Metered Customer-generators;
 - 11.2.4. The total estimated amount of kWh produced by Net-Metered Customer-generators; and
 - 11.2.5. any other information required by The Authority.

12. Enforcement

Where a party to a net metering agreement contravenes the provisions of these Guidelines, the Authority may take one or more of the enforcement measures enshrined in the Authority's Enforcement Regulations 2010.

13. Interpretation

In case of any doubt regarding interpretation of any of the provisions of these Guidelines, the decision of the Authority shall be binding and final.

14. Amendments

- 14.1. The Authority reserves the right to review and update these guidelines periodically to ensure alignment with applicable laws, standards, and best practices.
- 14.2. These Guidelines may be amended, modified, or supplemented by the Authority, as necessary, to address changes in regulatory requirements, technological advancements, or evolving industry practices.
- 14.3. Any amendments to these Guidelines shall be done in consultation with stakeholders.
- 14.4. Any amendments shall be communicated in writing to all stakeholders 14 days before it takes effect and will become effective upon official publication.

15. Final Provisions

All prior rules and guidelines, or portions thereof issued by the Authority not consistent with these Guidelines are hereby repealed or modified accordingly.

16. Effectiveness

These Guidelines shall become effective from the date of signature;

Issued on 16th day of April 2025



Director General
Public Utilities Regulatory Authority (PURA)

Annex I: Application Template for Net Metering

Section 1: Applicant Information

Please select your consumer category:

☐ Residential

☐ Commercial

☐ Industrial

☐ Institutional

For Individual Applicants (If Applicable):

Name:	
Address:	
Nationality:	
National ID:	
Passport no. (If non-Gambian):	
Telephone:	Mobile:
Email:	
Utility Account No.	
Meter No.	

Alternate Contact Person:

Name:	
Address:	
Relationship:	
Nationality:	
National ID:	
Passport no. (If non-Gambian):	
Telephone:	Mobile:
Email:	

For Non-Individual Applicants (If Applicable):

Name of the Organization/Company:	
Business Registration no.:	
Address:	
Mailing Address (if different):	
Utility Account No.	

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Contact Person:

Name:																	
Position:																	
Address:																	
Nationality:																	
National ID:																	
Passport no.(If non Gambian):																	
Telephone:									Mobile:								
Email:																	

Section 2: Project Information

Renewable Energy Generating Facility Site Address

Site Address:																
Post code:					District:					Region:						
Site Ownership:	☐ Fully Owned				☐ Owned (Charged to Bank)				☐ Leased							
GPS Location of Site Installation:																
Latitude:									Longitude:							

Technical Information of Installation (Renewable Energy Generating Facility)

Billing Account no.																
Tariff Category:	☐ Residential ☐ Commercial ☐ Industrial ☐ Institutional															
Connection type:	Low Voltage (Single Phase) ☐ Low Voltage (Three Phase) ☐ Medium Voltage (Three Phase-11 kV) ☐ Medium Voltage (Three Phase-33 kV)															
Project Status:	☐ New Project ☐ Existing Project															
System Type	☐ Solar PV ☐ Wind ☐ Biomass Others (Specify):															
System Configuration	☐ Grid-Tied ☐ Grid-Tied with Backup Battery ☐ Other															
Total Installed Capacity (kW)																
Battery Storage	☐ Yes ☐ No															
Battery Capacity (kWh) (Skip if No storage)																
Battery Type	☐ Lead-Acid ☐ Lithium-Ion ☐ Other															
Inverter Type																

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Inverter Capacity (kW)	
Expected Annual Generation (kWh)	
Export Capacity (kW)	

Section 3: Net Metering Specifications

Energy Exchange Mode	☐ Energy-to-Energy Exchange
System Compliance with utility Standards	☐ Yes ☐ No
Anti-Islanding Protection Installed	☐ Yes ☐ No

Required Attachments (Check if provided)

- ☐ System Design Diagram
- ☐ Electrical Single-Line Diagram
- ☐ Equipment Specifications & Certifications
- ☐ Installation Certification (if applicable)
- ☐ Property Ownership/Lease Agreement
- ☐ Recent Utility Bill
- ☐ Energy Generation Forecast & Load Profile

Section 4: Installation & Certification Details

Installer/Contractor Name	
Installer Certification Number	
License Number	
Expected Date of Commissioning	

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Section 5: Declaration & Signature

I,(Name of Owner/Contact Person) of
.....(Current address of Owner/Contact
Person) sincerely declare the following:

- i. I certify that the information provided is accurate to the best of my knowledge;
- ii. I hereby confirm that I have not committed any offences under the Electricity Act 2005 and/or any other relevant laws and regulations pertaining to the supply and licensing of electricity;
- iii. I acknowledge and agree to comply with Net Metering Guidelines for The Gambia 2025, including the energy-to-energy exchange framework.
- iv. I understand that approval of this application is subject to further technical assessment, compliance verification, and final inspection by Distribution Utility.
- v. I understand and agree that.....(the Distribution utility you are applying to) will have the right to take any action including to forfeit all initial fees paid, if any of the information given is false;
- vi. I hereby agree, understand and will comply with all the relevant laws and guidelines applicable to this application.

Signed on the.....Day of.....(Month).....(Year)

Signature

(stamp where applicant is a Company)

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Annex II: Net Metering Program Performance Reporting Template

Category	Indicator	Definition / Description	Unit	Frequency	Input
Participation & Adoption	Number of Enrolled Customers	Total customers registered for net metering	Number	Yearly	
	Customer Segmentation (by type)	Residential	%	Yearly	
		Commercial	%		
		Institutional	%		
		Industrial	%		
	Installed Capacity	Total capacity of all net-metered systems	kW	Yearly	
	Capacity segmentation (by type)	Residential	%	Yearly	
		Commercial	%		
		Institutional	%		
		Industrial	%		
	Growth Rate of Participants	Rate of increase in enrollments	%	Yearly	
Energy Flow & Generation	Energy Exported to Grid	Total energy fed back to the grid by participants	kWh	Quarterly	
	Energy Consumed On-Site	Energy consumed directly by generators	kWh	Quarterly	
	Net Billing Balance	Net energy balance (import - export)	kWh	Quarterly	
Financial & Economic	Value of Credits Issued	Total value of credits issued for energy export	GMD	Yearly	
	Utility Cost per Customer	Average utility cost to serve each net-metering customer	GMD	Yearly	
Grid Impact & Reliability	Grid Stability Events	Events (voltage, frequency) etc.	# Events	Quarterly	
	Reverse Power Flow Incidents	Incidents of reverse flow affecting grid	# Incidents	Quarterly	
Environmental & Social	GHG Emissions Avoided	Emissions avoided from RE generation	Tons CO ₂ eq	Yearly	

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	Customer Satisfaction	Survey-based satisfaction rate	%	Bi-Annual	
Customer Relations	Application Processing Time	Average days from application to interconnection	Days	Yearly	
	Number of Complaints	Complaints related to billing/service	# Complaints	Quarterly	
	Meter Accuracy Checks	# of faulty or inaccurate meters	# Meters	Yearly	

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