

**THE ENERGY AND WATER UTILITIES
REGULATORY AUTHORITY
EWURA**

**GUIDELINES FOR DEVELOPMENT OF
SMALL POWER PROJECTS**

MARCH 2011

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GLOSSARY, DEFINITIONS AND ABBREVIATIONS

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|--|---|
| Building Permits | An approval for a building construction to proceed issued by the City Council (Ministry of Lands) upon presentation of the relevant documents ¹ . |
| Business Licence, | A Permit issued by the relevant Municipal or Town Council allowing a developer to conduct the licenced business in a specified location |
| Business Registration | A recognition by a responsible Agency that the intended business operate in accordance with the laid down regulations and sound commercial principles. |
| Environmental and Social Impact Assessment (ESIA) | A study to identify possible impact, positive or negative, that a proposed project may have on the environment, together consisting of the natural, social and economic aspects. |
| DNO | Distribution Network Operator responsible for the operation of a distribution network; |
| EWURA | The Energy and Water Utilities Regulatory Authority |
| Grid Interconnection | A link between a Distribution Network and the Embedded Generator's electricity system, made for the purpose of exporting or importing Electrical Energy. |
| Independent Power Producer | is a private or public entity, which is not a public utility, that owns facilities to generate electric power for sale to the utility and end users. |
| Land Title Deed or Lease | A proof of ownership of (or an authority to use) a piece of land in a specified location issued by the relevant authority. |
| Letter of Intent | A letter issued by the DNO which indicates that it has no objections, in principle, to interconnecting a power plant of the proposed type, size and power export capacity at the proposed location. |
| National Energy Policy (2003) | The Policy formulated by the Government of Tanzania with the aim of establishing efficient energy production, procurement, transportation, distribution and end-use systems in an environmentally sound and sustainable |

¹ The documents required for obtaining a building permit include: Architectural/engineering drawings and calculations, including site layout and location plans, plans, elevations, sections of the building including storm water drainage, fire protection, driveways and parking; Title deed showing ownership; and Receipts of payments of land rents and other statutory fees.

| | |
|---|---|
| | manner. |
| REA | Rural Energy Agency |
| Small Power Project (SPP) | means a power plant using a renewable energy source or waste heat, or cogeneration of heat and electricity, with an export capacity of up to ten (10) MW; |
| SPP Developer | means a person that promotes and constructs an SPP for the purpose of selling power to a DNO pursuant to an SPPA or to any other entity subject to terms and conditions they may agree; |
| SPP Coordinating Unit | means a group of employees within the DNO responsible for performing the activities defined in the Electricity (Small Power development) Rules. |
| Standardized Small Power Purchase Agreement (SPPA) | The agreement between a utility entity (DNO) and a developer entered for the purpose of selling power to the grid or mini-grid not exceeding 10MW but not less than 100kW. |
| Taxpayer ID | Taxpayer Identification Number (TIN) obtained from the Tanzania Revenue Authority |
| VAT Certificate | A Certificate issued by the Tanzania Revenue Authority recognizing a Developer as a VAT registrant |
| Water Right | the right issued by the relevant Authority to an SPP Developer to water resources used to make electricity |
| Working Group on Small Power Development (WGSPD) | means a team of experts with the composition and responsibilities specified under Section 4 of these Guidelines. |

1. INTRODUCTION

These Guidelines, issued by the Energy and Water Utilities Regulatory Authority (EWURA), are intended to assist the Small Power Project (SPP) developers (also referred to as “Sellers”) to understand:

- (a) the SPP legal framework and process;
- (b) EWURA’s licensing requirements and procedures;
- (c) how to obtain authorizations from other government institutions; and
- (d) other technical, commercial and regulatory requirements necessary to bring an SPP into operation.

These Guidelines are for information purposes only and may not reflect the most current legal developments, judgments or regulatory decisions relevant to the development of an SPP in Tanzania. These Guidelines should be read together with the Electricity Act, Cap. 131; EWURA Act Cap. 414; Standardized Small Power Purchase Agreements (SPPAs); Standardized Tariff Methodologies (STM) and any Regulations or Rules made thereunder. EWURA may, as it considers appropriate, make modifications, waivers or extensions to requirements and timelines set out in these Guidelines.

2. BACKGROUND INFORMATION

In 2003, the Government of Tanzania adopted the National Energy Policy. The Policy encourages private investment in development projects based upon the rational exploitation and management of resources, and the protection of the environment. The policy acknowledges the need to establish a legal framework for renewable energy development together with institutional structures and mechanisms to address technical, social and financial barriers to the expansion of renewable energy technologies. In furtherance of that policy, the Ministry of Energy and Minerals (MEM) has, in consultation with EWURA and sector stakeholders, developed a set of legal instruments and technical guidelines intended to promote development of clean Small Power Projects.

For the purpose of these Guidelines and any rules made by EWURA on SPPs, the term “Small Power Project (SPP)” means a power plant that uses a renewable energy source, either directly or through cogeneration of heat and electricity, with an export capacity of up to ten (10) MW. In addition to promoting renewable energy and cogeneration, many SPPs are expected to contribute significantly to the expansion of rural electrification.

In order to increase investment in and reduce costs related to rural electrification, section 39(2) of the Electricity Act, Cap. 131 requires EWURA to pursue light-handed regulation of such projects.

SPPs connected to Tanzania's main grid operate under conditions that are significantly different from SPPs connected to small, isolated grids. Similarly, conditions for generators that sell power on a wholesale basis to the national grid are distinguishable from those selling directly to retail customers (e.g., households or local businesses). In view of that, these guidelines and the rules stipulates different terms and conditions to address such differences.

3. SPP DEVELOPMENT STEPS

An SPP shall be implemented through the following steps:

- (a) project identification;
- (b) land acquisition;
- (c) securing rights to the resource;
- (d) acquiring necessary consents and licences;
- (e) financing;
- (f) construction;
- (g) testing and commissioning; and
- (h) operation and reporting.

Consents (permits, licences, and clearances) required from various authorities for the development of SPP are briefly discussed under section 3.1. While many of these steps may be completed contemporaneously, some steps require prior permissions.

3.1. Steps and Procedures

The implementation of an SPP shall be done in accordance with the Electricity Act, Cap. 131, rules to be issued by EWURA and these Guidelines. The details on the steps and the prerequisites for an SPP development are as follows:

3.1.1. Land Title Deed or Lease

An SPP Developer must hold either:

- (a) a title deed issued by the Ministry responsible for land matters, for the land upon which the SPP shall be located;
- (b) in case of a lease, a lease agreement; or
- (c) any other documentation evidencing ownership for the land upon which the SPP shall be located.

3.1.2. Document Demonstrating Water Rights

If the proposed project is a hydropower project, the right to water resources used to make electricity is sometimes contested. To avoid competing claims on the same resource, it is important that the SPP developer be able to demonstrate that he/she is the legal holder of rights to sufficient resources to make the project viable. The required documents include water rights permission issued by the appropriate authority.

3.1.3. Letter of Intent

The first step towards concluding an SPPA is a Letter of Intent (LOI). An LOI indicates that the DNO has no objections, in principle, to interconnecting a power plant of the proposed type, size and power export capacity at the proposed location. An LOI will facilitate acquisition of approvals required from other authorities and may also help to improve credibility of SPP for financing. **No additional LOIs will be issued for new projects on the same site, or where the project proposal conflicts with another proposal to which a LOI has been previously issued.**

A request for an LOI shall include the following information:

- (a) the name and address of the SPP Developer;
- (b) the location (longitude and latitude) (to be marked on a survey map). If hydropower, identification of the river/stream/canal where the plant is located. Head and flow involved if applicable;
- (c) the fuel type (hydro, biomass, wind, etc.);
- (d) the power capacity (MW) and planned power export (MW), expected annual energy generation (GWh);
- (e) a copy of title deed, lease agreement or any other documentation evidencing ownership of land; and
- (f) evidence of approval of rights to resource, if applicable (e.g. water rights for a hydro project).

An application for an LOI must be accompanied by an appropriate processing fee paid to the DNO as approved by EWURA. The form of a request for an LOI is found in

APPENDENCES

Form 1

Request for Letter of Intent to Interconnect an Embedded Generator to a DNO”.

Only SPPs that are designed to synchronize with the DNO system are required to apply for an LOI..

3.1.4. Business Registration, Business Licence, Taxpayer ID, VAT Certificate

Permission to conduct business in Tanzania requires the completion of numerous steps, including company registration, obtaining a business licence, and a tax clearance certificate. Registration of companies is governed by the Companies Act, Cap. 212 and Business Names Registration Act, Cap. 213.

SPP Developers will also be required to apply for a business licence from the Ministry responsible for trade and be registered as tax payers with the Tanzania Revenue Authority.

3.1.5. Building Permits

Construction of any major installation (as will be the case for most of the SPPs) must be allowed by relevant authorities responsible for town and country planning. The authorities that issue building permits include district, municipal and city councils.

3.1.6. Environmental and Social Clearances

An Environmental and Social Impact Assessment (ESIA) is a process pursuant to which a development proposal (including its alternatives) and its effects on physical environment and human life, including the mitigation and management of effects is evaluated. An ESIA is carried out in order to ensure that the likely effects of new developments are taken fully into account before the development is allowed to go ahead.

The ESIA process covers the period commencing at the initial concept of the proposal and run through implementation to completion and, where appropriate, decommissioning. An ESIA is conducted under the provisions of the Environmental Management Act, Cap. 119, which is managed by the National Environmental Management Council.

As provided in the Environmental Management Act, Cap. 119 and depending on size and potential for impact, some projects may not require a full EIA.

3.1.7. Standardized Small Power Purchase Agreement (SPPA)

An SPPA is a standard form contract between an SPP Developer and the DNO for the sale and purchase of electricity.

SPPAs have been developed by EWURA in consultation with various stakeholders including SPP Developers and the DNO. Although EWURA may modify the SPPA from time to time, any changes thereto shall apply only to new PPAs signed after the date of modification or amendment of the SPPA, and will not apply to PPAs previously signed between a SPP and the DNO.”. EWURA may for a good cause shown relieve any party to an SPPA from complying with certain terms and conditions of such SPPA.

The SPPA has the following major features:

- (a) it is a ‘must-take’ contract: All energy supplied by the SPP developer to the DNO will be purchased by the DNO subject only to such necessary directions and protocols as may be issued by the DNO for the protection of its electric system;
- (b) the Standardized Power Purchase Tariff, announced each year, is based on the DNO’s Avoided Costs;
- (c) the floor tariff over the term is 100% of the tariff in the year in which the SPPA is signed;
- (d) the tariff is capped at 150% (Tanzanian CPI-adjusted) of the tariff in the year in which the SPPA is signed; and
- (e) the SPPA has a term of 15 years, starting from commencement date of operation.

The SPPA also includes duties and obligations that bind both the DNO and an SPP Developer, including:

- (a) the grid interconnection requirements (specifying power quality standards, relay and other technical requirements for safe interconnection with the DNO grid);
- (b) metering arrangements;
- (c) billing and payment;
- (d) *force majeure*;
- (e) limitation of liability; and
- (f) dispute resolution.

To initiate the SPPA agreement process, an SPP Developer shall complete and submit to the DNO information called for in “Appendix 1, Form 3: “Application for Interconnection and Sale of Electricity”.

All SPPs that do not sell electricity to a DNO are exempted from the obligation to execute an SPPA.

The Procedures governing the application for and conclusion of an SPPA are governed by the **Rules 16 et. seq.** of the Rules on the Development of Small Power Projects 2009.”

3.1.8. EWURA Licence

EWURA issues licences to provide regulated services in the electricity, petroleum, natural gas and water and sewerage sectors of Tanzania. Unless exempted, no one is allowed to provide electricity services in Tanzania without seeking and obtaining a licence from EWURA. However, the Electricity Act, Cap. 131 exempt certain operators from the requirements of obtaining a licence from EWURA. Furthermore, EWURA has been given powers under the same Act to exempt any operator from the requirement to apply for a licence.

The applicant shall be required to pay a licence application fee as approved by EWURA.

All SPPs of generating capacity less than 1 MW in rural areas are exempted by the Electricity Act, Cap. 131 from obtaining a licence from EWURA. However, SPP Developers who are exempted from obtaining a licence are required to register with EWURA to enable it to get accurate information on its operations.

A provisional licence may be issued by EWURA pursuant to Section 12(1) of the Electricity Act, Cap.131, to enable the project developer to carry out assessments, studies and certain activities necessary for application of a licence.

3.1.9. EWURA Approval of Retail Tariff

As further elaborated under section 4 herein, an SPP Developer shall submit an application to EWURA for the approval of a cost-based tariff that is based on its own actual or projected total costs plus a reasonable profit for the portion of electricity sold to retail customers if it sells electricity directly to final (retail) customers.

4. WORKING GROUP ON SMALL POWER DEVELOPMENT

The Working Group on Small Power Development (WGSPD) is a team with a composition described below having responsibility of, inter alia:

- (a) acting as a representative of the key stakeholders on matters concerning development of SPP;
- (b) Liaising with the Authority on matters related to annual computations of SPP Tariffs; and advising the Authority on modification or general improvement of SPP programme.

The structure and membership of the WGSPD shall be as follows;

- (a) One member each from the Ministry responsible for electricity and the Rural Energy Agency (REA) for overseeing policy and financial support matters,
- (b) Two members from the Authority to be able to address technical and commercial issues,

- (c) In anticipation of the restructured power sector, two (2) representatives of the Distribution Network Operators (DNOs) to be nominated by DNOs from a single DNO,
- (d) One representative from the academic institutions to provide advice on academic concepts,
- (e) One representative of the SPP developers nominated by the developers' association,
- (f) Each institution may designate an alternate member with sufficient knowledge and skills to handle the requisite tasks under the SPP programme,
- (g) Eligible members so nominated are expected to be sufficiently conversant with matters related to technical and commercial operations of the utility. Other specialized skills may be co-opted as needed,
- (h) EWURA will provide a Secretariat to the WGSPD,
- (i) Tenure – each member shall serve for 3 years, unless reappointed by own institution or the tenure terminated by the Authority in writing to the responsible entity due to ineffectiveness of the member.

Details of the operations of the WGSPD shall be issued by the hosting institution during its first meeting upon effectiveness of these Guidelines and the associated Rules.

5. TARIFF MATTERS

To protect both parties (the SPP Developer and the DNO) against future price fluctuations, the SPP tariffs used in Cases 1 and 2 in the table below, include both a price floor and a price cap. The floor is equal to the tariff in the year in which the SPPA between the Seller and the DNO is executed. That price is “locked in” for the duration of the PPA to protect the SPP against possible reduction in the standardized tariff in future years. If the calculated tariff in a particular year goes below this floor, then the floor price will be applied. Similarly, if the calculated tariff rises above the price cap for a project signed in a particular year, then the price cap will be applied. The price cap equals 1.5 x Standardized tariff for the year the PPA is executed. The price cap will be adjusted on an annual basis to reflect changes in the Consumer Price Index.

The four most likely SPP cases are set out in figure 1 below:

Figure 1: SPP Cases

| | Connected to main grid | Connected to isolated mini-grid |
|---|-------------------------------|--|
| Selling wholesale (to DNO) | Case 1 | Case 2 |
| Selling retail (directly to final customers) | Case 3 | Case 4 |

Tariff computation mandate and procedure

EWURA shall request in writing the relevant data for annual SPPT computation from the DNO in the first week of September and the DNO shall provide the requisite data in writing not later than 20th September each year. Upon receipt of the data, EWURA shall verify it, and if satisfactory, compute the SPPT based on the approved tariff methodology.

After computing the SPPT, EWURA shall convene the Working Group on Small Power Development (WGSPD) to discuss the results of the computation of the SPPT to main grid and mini grid DNOs (Cases 1 and 2) before they are submitted to EWURA Board for review and approval. The SPPT will be computed in October of each year and approved by 30th of November.

In the event that the computation and approval of the new SPPT is delayed, purchases will be paid at the existing tariff until the new tariff becomes effective.

Tariffs for the subsequent year shall be published in the *Government Gazette* pursuant to the EWURA Act, and be further published in two newspapers (one in English and the other in Kiswahili) of national circulation on or before the 30th of November each year.

4.1. Case 1: Wholesale Tariff for Electricity Sold to the Main Grid

For the portion of electricity sold at wholesale by the SPPs to the main grid (Case 1), the standardized SPP tariff is based on the avoided cost of power purchases and power generation by the DNO. This means that electricity purchased from an SPP Developer is purchased at the price that DNO pays for the additional amount of electricity it would have procured from other suppliers such as:

- (a) an Independent Power Producer;
- (b) a utility in interconnected neighbouring countries; or
- (c) one of its own generating units if an SPP Developer is not connected.

The approved tariff methodology for Case 1 is in effect, an average of the DNO's long-run marginal cost (LRMC) and its short-run marginal cost (SRMC). The LRMC is as defined by DNO's long-term power plan. The SRMC is the budgeted cost of thermal generation for the next year.

4.2. Case 2: Wholesale Tariff for Electricity Sold to Isolated Mini-grids

In Case 2 electricity is sold to an isolated mini-grid. Here, as in Case 1, the tariff is computed based on a simple average of long-run and short-run marginal costs. However, in Case 2, the short-run marginal cost is calculated differently. In Case 2, the average incremental levelized cost of electricity from a new mini-grid diesel generator, including capital, fuel, and Operational and Maintenance costs is used.

4.3. Transition: From Case 2 to Case 1 (triggered by arrival of main grid)

When the main grid expands to interconnect with a mini-grid to which an SPP is selling electricity, the PPA and tariff will be those applicable to other main grid connected SPPs. For that reason, the DNO, when responding to an initial application for a Letter of Intent (LOI) from a mini grid SPP, should estimate when the mini-grid is likely to be connected to the main grid. In addition, the DNO should, on an annual basis, keep the mini-grid connected SPP informed on the status of grid-extension towards interconnecting the mini grid network.

4.4. Cases 3 and 4: Retail Tariffs for Electricity Sold to Final Customers

An SPP Developer selling directly to final (i.e., retail customers) must submit to EWURA an application for a cost-based tariff that is based on its own actual or projected total costs (expected to be largely generation and distribution costs) plus a reasonable profit for the portion of electricity sold to retail customers.

The SPP Developer must decide whether its proposed tariff is:

- (a) a conventional 'per kWh' charge;
- (b) a fixed monthly charge based on the number of lights and other appliances in the household; or
- (c) another tariff mechanism.

EWURA shall apply a streamlined application and approval process when:

- (i) an SPP applicant has received a written approval from REA for a subsidy to connect rural customers;
- (ii) the SPP's proposed tariff is at or below the tariff levels used by REA in calculating the subsidy that it will provide to the SPP;
- (iii) the SPP applicant submits to EWURA this REA-reviewed tariff and evidence that its potential customers and local governmental authorities have been notified and accepted the proposed tariff. Evidence of such notification may be submitted using Form 8 "Acknowledgement of Notification by Local Government Official Unit of the Planned SPP Project and Tariff submission to EWURA".

6. SEQUENCE OF IMPLEMENTATION

The sequences of implementation of an SPP can be summarized as in figure 2 below:

Figure 2: The Sequences of implanting an SPP:



7. SPP COORDINATING UNIT

The DNO shall establish an SPP Coordinating Unit to serve as a single point of contact for SPPs in interacting with various divisions within its organization. The Unit's principal work shall include:

- (a) issuance of a Letter of Intent;
- (b) facilitation of signing of SPPAs with SPP Developers;
- (c) reviewing SPP progress reports;
- (d) facilitation and coordination between an SPP Developer and a DNO in building of the interconnection and metering facilities and upgrading of the DNO system as necessary;
- (e) at the time of initial interconnection, performing the function of the "Authorised Officer" to witness interconnection testing and issue the interconnection certificate;
- (f) during commercial operation, accepting and verifying invoices for electricity sales from an SPP Developer and forwarding them to the appropriate division within DNO's for payment;
- (g) monitoring Seller performance and maintaining a database of the SPP's power production;
- (h) representing the DNO as an active participant in the Small Power Development Group to review tariffs and other SPP documents; and
- (i) being custodian of study reports on prospective renewable energy development sites, and making such information available to developers.

8. COMMUNICATION

For more Information, please contact EWURA on the following address:

Director General
Energy and Water Utilities Regulatory Authority
6th Floor, Harbour View Towers
Samora Avenue
P. O. Box 72175
DAR ES SALAAM, TANZANIA
Telephone: +255 (22) 22123850/3/4/6
Facsimile: +255 (22) 22123180
E-mail: info@ewura.go.tz
Website: www.ewura.go.tz

APPENDENCES

Form 1

Request for Letter of Intent to Interconnect an Embedded Generator to a DNO

Name:
Company:
Address:
Telephone:
Fax:
Email:

Date:

Dear Chief Executive Officer:
Distribution Network Operating Co.

I/We submit this Request for Letter of Intent to express my/our desire to develop, construct, and connect to the distribution network and operate an embedded generating plant, the details of which are given below,

1. Name and Address: (*SPP Developer*).
2. Location (*longitude and latitude*) (to be marked on a survey map). If hydropower, identification of the *river/stream/canal* where the plant is located; *Head and flow* involved if applicable.
3. Fuel type: (*hydro, biomass, wind, etc.*).
4. Power capacity (MW) and planned power export (MW), annual energy generation (GWh).
5. Copy of title deed, concluded lease agreement, or a Letter of Agreement to lease/rent from the title holder.
6. Evidence of approval of rights to resource, if applicable (e.g. water rights for a hydro project).

I/We agree to provide any further information you may require to process this Initial Application.

Yours truly,

[*Name (and Company, if any)*]

Form 2
Template for Letter of Intent

Date:

SPP Developer (*Name and Address*):

Embedded Generating Plant (*Name and Address*):

Site Reference Number:

Letter of Intent

This refers to your Initial Application dated [*date of initial application*], expressing your desire to develop the Embedded Generating Plant described above. The proposed Embedded Generating Plant has been allocated **the Site Reference Number** shown above, which should be used in all future correspondence with [*DNO*] and documentation about the Plant.

Details of the Embedded Generating Plant are the following:

[*Location, Province, District, land ownership details, map references and any other information useful to clearly identify the site*]

The primary source of energy of the Embedded Generating Plant:

[*hydro, wind, biomass (specify the type such as saw dust, rice husk, wood), solar, CHP, etc*]

The Point of Supply (*POS*) location is []

The Point of Common Coupling (*PCC*) location is []

The [*Distribution Network Operating Co.*] is pleased to inform you that has no objection to purchase electrical energy from the proposed Embedded Generating Plant (*hereafter referred to as "the Plant"*), subject to the Terms and Conditions stated below,

1. The Plant shall be built by [*name of individual or Company*], and shall remain under your ownership until such time the Plant enters Commercial Operation.
2. This Letter of Intent is not transferable, without the written consent of the [*Distribution Network Operating Co*] and such consent should be copied to EWURA.
3. If at any time you decide not to proceed with development of the proposed Plant, you shall promptly inform the [*Distribution Network Operating Co*] about your decision.
4. The Plant shall be designed, built, commissioned and operated to satisfy the Standards and Requirements determined by the [*Distribution Network Operating Co*].

5. The design, construction, testing, commissioning and operation of the Interconnection of the Plant with our network shall be according to the requirements and procedure specified in the "Guide for Grid Interconnection of Embedded Generators, Tanzania" (hereafter referred to as "the Guide") / Applicable distribution code. A copy of which is hereby attached / available at www.xxx.com (specify link).
6. The physical location of the Point of Supply, at which [*Distribution Network Operating Co*] shall meter and receive the Plant output, is shown in the attached single-line diagram.
7. The physical location of the Point of Common Coupling, beyond which other [*Distribution Network Operating Co*] customers may be connected, is also shown in the attached single-line diagram.
8. The [*Distribution Network Operating Co*] hereby confirm that "its system (including transmission lines, distribution lines, switchgear and protection) is capable to accommodate the power delivered by the SPP Developer".

OR

"its system (including transmission lines, distribution lines, switchgear and protection) is unable to accommodate the power delivered and therefore you are allowed to meet the costs for upgrading the system".

9. The [*Distribution Network Operating Co*] shall assist you to obtain any rights of way or easements required to build the interconnection facilities, including the transmission line.
10. All equipment and transmission line(s) on the [*Distribution Network Operating Co*] side of the Point of Supply shall be maintained by [*Distribution Network Operating Co*].
11. The applicable tariff shall be as stated in Appendix A of the SPPA or as may be determined by EWURA.
12. This Letter of Intent is valid for a period of twelve (12) months (unless extended as stipulated in the Rules published by EWURA), during which period you should submit to the [*Distribution Network Operating Co*] the Feasibility Study and an outline plan for the construction of the Plant. You should also provide the [*Distribution Network Operating Co*] the information required to proceed with studies required to specify the requirements for the interconnection.
13. A Standardized Small Power Purchase Agreement (SPPA) shall be signed between [*name of individual or Generating Company*] and the [*Distribution Network Operating Co*], within the period of validity of this LOI, as extended by the [*Distribution Network Operating Co*].

14. The [*Distribution Network Operating Co*]-reserves the right to examine the detailed designs of the Plant and equipment, and the facilities required for the interconnection with the [*Distribution Network Operating Co*] network.
15. Commissioning tests of the Plant will be conducted by you, at your expense, and the [*Distribution Network Operating Co*]-shall be notified when such tests are conducted.
16. Commissioning tests of the Interconnection facilities (without actually making an interconnection) shall be conducted by you, at your expense, and the [*Distribution Network Operating Co*] shall be notified when such tests are conducted, and may attend such tests.
17. Tests on the Interconnection between the Plant and the [*Distribution Network Operating Co*] network shall be conducted by [*Generating Company*] and witnessed by [*Distribution Network Operating Co*] as specified in the Guide. The costs of such tests shall be borne by you.
18. It would be your sole responsibility to obtain all the necessary approvals for the construction of the Plant and Interconnection facilities from the relevant Government [and other] agency.
19. It will be necessary for you to obtain a licence from EWURA to generate and sell electricity to the [*Distribution Network Operating Co*]-prior to commencement of construction of the Plant.
20. Any costs incurred by you in the fulfillment of requirements specified in this letter are at your sole risk and expense, with no claim whatsoever on the [*Distribution Network Operating Co*]
21. The detailed feasibility report and the plan for construction, including the design details, should be submitted to the [*Distribution Network Operating Co*]-within six (6) months of the date of this LOI.
22. The progress of the project should be reported to the [*Distribution Network Operating Co*]-every three (3) months from the date of this LOI.

Yours truly,

[*Distribution Network Operating Co*].

Form 3

Application for Interconnection and Sale of Electricity

Note: Information in this Application shall be final and will be used in the PPA. This application should be submitted to the Distribution Network Operating Company, before the Letter of Intent expires

Site Reference Number: _____ Date of Letter of Intent: _____ valid until: _____

1. Information about the Generating Company

Name: _____
(this shall be the special-purpose project Company, if so required by the Developer)

Address: _____

Phone/fax _____

Company registration information: _____

2. Project Information

Project Type: *(state primary energy source: hydro, wind, biomass, solar)* and/or whether CHP

Project Location: *(mark the project location on a 1:50,000 map)* [this will be attached to the PPA]

Installed generating capacity: kilowatt _____, Export capacity: kilowatt _____

Expected annual energy dispatch: kilowatt hour _____

Target Commercial Operation Date: _____

3. Interconnection information:

(a) Single-line Diagram of the grid interconnection: [attach a figure showing generators, circuit breakers, and transmission line and protection equipment. See Guide for Interconnection of Embedded Generators to the Main grid and Isolated Mini-grids in Tanzania, for examples appropriate for the capacity of the power plant. Indicate capacities of generators, circuit breakers and lines]. The Generating Company shall also provide the DNO with the proposed settings of all protection relays and switchgear.

(b) For synchronous generators, please provide the following (including shaded areas for generators above 500 kW in capacity):

- Site Name
- Location
- Site Reference Number
- Generating Company Name.....
- Contact
- Point of Supply (location)
- Maximum export capacity
- Maximum import capacity
- Power factor operating range

Generator (for each synchronous generator):

Terminal voltage (kV)

Machine rating (MVA)

| | |
|--|----------------------|
| Stator resistance (pu) | tolerance % |
| Sub-transient reactance (pu) | tolerance % |
| Transient reactance (pu) | tolerance % |
| Synchronous reactance (pu) | tolerance % |
| Sub-transient time constant (ms) | tolerance (ms) |
| Transient time constant (ms) | tolerance (ms) |

Transformer (for each generator transformer);

Rating (MVA)
Reactance (pu) tolerance %
Resistance (pu) tolerance %
Voltage Ratio vector group

Cable or Line between the Generator and Point of Common Coupling where this cabling distance exceeds 50 metres

Voltage (V)
Reactance (Ohm) Resistance (Ohm)

4. Certification:

I certify that neither I nor any other party connected to me have previously submitted an application for the registration of the same renewable energy project or resource described in this application and I have read the “Guidelines for Developers of Small Power Projects (SPP) in Tanzania” and the “Guide for Interconnection of Embedded Generators to the Main Grid and Isolated Mini-grids, Tanzania”

Name: _____

Signature: _____

Date: _____

Form 5

Registration Form for SPP Facility Less Than 1 MW in Generation Capacity

THE UNITED REPUBLIC OF TANZANIA
Energy and Water Utilities Regulatory Authority (EWURA)
6th Floor, Harbour View Towers, Samora Avenue,
P.O. Box 72175, Dar es Salaam
TEL: +255-22-2123853; 2123854; 2123856; FAX: +255-22-2123180
Website: www.ewura.go.tz

| For EWURA Use Only | |
|---------------------------|----------------|
| Date Received: | Docket Number: |
| Time Received: | Received by: |

Name of registrant (Seller):
Certificate of Incorporation No:
Registration No
TIN No
VAT No
Physical and Postal address
Physical address: (Plot No., House No., Street)
Postal address:
Landline:
Facsimile:
Cellular Phone:
E-mail:
Website address:
Name of facility:
Location of facility:
Contact:
River/host facility (if applicable):
Exact connection point (feeder, pole or switch number):
Location of metering (meter number):
Nominal connection voltage:
Type of fuel: _____; type of generation technology: _____
Nameplate capacity rating: _____ kW
Expected capacity to sell: MIN _____ kW; MAX _____ kW
Capacity consumed by seller: MIN _____ kW; MAX _____ kW
Expected annual production: _____ kWh
Date of planned completed construction of facility:

Form 6

Application Form

**For EWURA Licence for Grid-interconnected SPP Greater than 1 MW in
Installed Capacity**

THE UNITED REPUBLIC OF TANZANIA
Energy and Water Utilities Regulatory Authority (EWURA)
6th Floor, Harbour View Towers, Samora Avenue,
P.O. Box 72175, Dar es Salaam
TEL: +255-22-2123853; 2123854; 2123856; FAX: +255-22-2123180
Website: www.ewura.go.tz

| For EWURA Use Only | |
|---------------------------|----------------|
| Date Received: | Docket Number: |
| Time Received: | Received by: |

Section 1: Applicant and facility general information

Name of registrant (Seller):

Certificate of Incorporation No:

Registration No

TIN No

VAT No

Physical and Postal address

Physical address: (Plot No., House No., Street)

Postal address:

Landline:

Facsimile:

Cellular Phone:

E-mail:

Website address:

Name of facility:

Location of facility:

Contact:

River/host facility (if applicable):

Exact connection point (feeder, pole or switch number):

Location of metering (meter number):

Nominal connection voltage:

Type of fuel: _____; type of generation technology: _____

Nameplate capacity rating: _____ kW

Expected capacity to sell: MIN _____ kW; MAX _____ kW

Capacity consumed by seller: MIN _____ kW; MAX _____ kW
 Expected annual production: _____ kWh
 Date of planned completed construction of facility:

| Section 2A – Technical and Managerial Competence | |
|--|----------------------------------|
| <p>Is the Applicant a party to any civil suit or criminal case in Tanzania or in any other country?</p> <p>† Yes: If Yes please give details on separate a sheet</p> <p>† No:</p> <p>Is any affiliate/parent company/group member of the Applicant involved in any civil suit or criminal case in Tanzania or in any other countries?</p> <p>† Yes: If Yes please give details on a separate sheet</p> <p>† No:</p> <p>Have any of the Company Directors/ CEO detailed in section 1A have been involved in any entity where an Electricity licence has been revoked?</p> <p>† Yes – Please give details on a separate sheet</p> <p>† No</p> | |
| <p>Does the Applicant or any parent, holding, affiliate or associate company ever been convicted of any offence in Tanzania or any other countries over the past three years.</p> <p>Yes – Please give details on a separate sheet</p> <p>† No</p> | <p>FOR EWURA USE ONLY</p> |
| Section 2B - The Project Description | |
| | <p>FOR EWURA USE</p> |

| |
|---|
| |
| Provide the detailed description of the project and attach the following. |
| † Feasibility Study |
| † Business Plan |
| † Site maps |
| † Land use plan |
| † Design and as built drawings if some or all are not part of the Feasibility Study |
| † Power Purchase Agreements/Power Off take Agreements/Power Sales Agreement/Power Export Agreement (if applicable) |
| † Fuel supply agreements |
| † Any other agreement or arrangement which the applicant is a party |
| † On a separate sheet provide project implementation time schedule if the same is not part of the documentation provided above. |
| |
| List and attach evidence of all required consents/approvals issued by relevant authorities (Use separate sheet) e.g. Water right, local government (district) approval, land offer etc |
| |
| On a separate sheet provide the Environmental Impact Assessment Study Report and Minister approval |

ONLY

Section 3 – Declaration by the Applicant

I.....(state name) being.....(state position/designation) hereby declare that I am authorized to make this application on behalf of the applicant and that to the best of my knowledge the information supplied herein is correct and that within a reasonable period of time after notice, I undertake to provide whatever additional information EWURA may require in order to evaluate this application.

SWORN/AFFIRMED at.....)
by the said.....who is identified to)
me by...../known to me personally)
the latter being known to me personally this) **DECLARANT**
.....day of2009)

BEFORE ME:

COMMISSIONER FOR OATHS

Form 7

Form for Annual SPP Reporting to EWURA

(for all SPPs, regardless of size)

THE UNITED REPUBLIC OF TANZANIA
Energy and Water Utilities Regulatory Authority (EWURA)
6th Floor, Harbour View Towers, Samora Avenue,
P.O. Box 72175, Dar es Salaam
TEL: +255-22-2123853; 2123854; 2123856; FAX: +255-22-2123180
Website: www.ewura.go.tz

| For EWURA Use Only | |
|---------------------------|----------------|
| Date Received: | Docket Number: |
| Time Received: | Received by: |

Name of registrant (Seller):

Certificate of Incorporation No:

Registration No

TIN No

VAT No

Physical and Postal address

Physical address: (Plot No., House No., Street)

Postal address:

Landline:

Facsimile:

Cellular Phone:

E-mail:

Website address:

Name of facility:

Location of facility:

Contact:

River/host facility (if applicable):

Exact connection point (feeder, pole or switch number):

Location of metering (meter number):

Nominal connection voltage:

Type of fuel: _____; type of generation technology: _____

Nameplate capacity rating: _____ kW

Expected capacity to sell: MIN _____ kW; MAX _____ kW

Capacity consumed by seller: MIN _____ kW; MAX _____ kW

Date of completed construction of facility:

Annual electricity production during the calendar year (January 1 to 31 December) 20____
: _____ kWh

Annual electricity sales during the calendar year (January 1 to 31 December) 20____ :
_____ kWh

Amount of electricity sold to Distribution Network Operators _____ kWh

Amount of electricity sold to retail customers _____ kWh

Number of DNO customers _____.

Number of retail customers _____

Comments and Clarifications

Form 8

**Acknowledgment of Notification by Local Government Official Unit of the
Planned SPP Project and Tariff Submission to EWURA**

I have hereby been notified that SPP developer _____ (insert name) will be filing a tariff to EWURA for approval for the sale of electricity directly to customers in the area in which I am an elected official. I understand that the tariff filing is expected to reach EWURA on or around _____ (DD/MM/YYYY). I understand that all affected persons have 21 days from the date EWURA receives the tariff filing in which to submit comments with EWURA.

I have signed each page of the proposed tariff (attached).

All information, including comments on the tariff should be sent to:

Director General,
Energy and Water Utilities Regulatory Authority (EWURA) 6th
Floor, Harbour View Towers, Samora Avenue/Mission Street P.O.
Box 72175
Dar es Salaam, TANZANIA

The SPP facility information:

Name of facility: _____

Location of facility: _____

Site Reference Number (if also selling electricity to DNO): _____

Name of SPP Developer: _____

Address:

Postal Address: _____

Land line: _____ Facsimile: _____

Cellular Phone: _____

E-mail: _____ Website: _____

The Declarant Information and Signature:

Declarant position (must be elected local government official)_____

Government institution:

Address:

Landline: _____ Facsimile: _____

Cellular Phone: _____

E-mail: _____

Signature of declarant

Date