

Bhutan Electricity Authority



Guideline for Exemption of License for Generation from Distributed Energy Resources below 500kW installed capacity

July 2022

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Preamble

- 1 In exercise of the power conferred by Section 11 and Section 19 of the Electricity Act of Bhutan (EAB), 2001, the Bhutan Electricity Authority hereby adopts the Guideline on Exemption of License for Generation of Electricity from Distributed Energy Resources (DER) below 500kW installed capacity as provided herein.

Title and Commencement

- 2 This Guideline shall:
 - (1) Be cited as the “*Guideline for Exemption of License for Generation of Electricity from Distributed Energy Resources below 500kW, 2022*”; and
 - (2) Come into force with effect from 1st July 2022.

Objective

- 3 The objectives of this Guideline are to exempt license requirements to provide an opportunity to the interested resource developers and empower the consumers to be self-reliant on the production and supply of electricity from the renewable DER in the Kingdom for the generation of electricity below 500kW installed capacity that:
 - (1) Is installed and operated for self-consumptive use;
 - (2) Does not have significant electrical safety risks and challenges; and
 - (3) Does not have significant challenges for compliance with technical standards and power quality.

Scope

- 4 This Guideline shall apply to:
 - (1) Any person installing and operating the electricity generation facilities below 500kW installed capacity; and
 - (2) The Bhutan Power Corporation for interconnection of Distributed Energy Resources below 500kW installed capacity to the Distribution System.

Amendment

- 5 This Guideline may be amended as and when deemed necessary by the Bhutan Electricity Authority.

Procedures for License Exemptions

For up to 10kW

- 6 The Resource Developer and Owner are exempted from the requirement to apply to the Bhutan Electricity Authority for license exemption for installation and operation of grid-connected rooftop Solar PV Systems up to 10kW provided that the Owner obtains the concurrence and registers with the Bhutan Power Corporation for integration to the Distribution System based on the technical feasibility. The Bhutan Power Corporation shall keep records of all required information on rooftop Solar PV Systems up to 10kW.

For above 10kW and up to 500kW

- 7 For installations and operations of the solar power plants above 10kW up to 500kW and other Distributed Energy Resources below 500kW, the Owner shall be required to apply for License Exemption to the Bhutan Electricity Authority accompanied with the following information:
 - (1) Legal information of the Owner for record and reference;
 - (2) Technical details of the project such as electricity consumption, generation install capacity, arrangement for interconnection to the Distribution System and that the installation, testing, commissioning, interconnection and operation of the DER will be implemented safely and efficiently without significantly impacting the Distribution System; and
 - (3) Project location and site details.
- 8 Within (5) five days from the receipt of an application for License Exemption, the Bhutan Electricity Authority shall either request additional information or confirm in writing that the application is complete in all aspects.

Assessment of the Project Application

- 9 While assessing the project for License Exemption, the Bhutan Electricity Authority shall consider the following factors:
 - (1) the need for electricity for self-consumptive use;
 - (2) the ability of the Resource Developer or Owner to construct and operate the proposed system safely and efficiently;
 - (3) Install the DER capacity in kilowatt (kW) not more than the maximum demand determined from the recent past twelve (12) months of electricity consumption or as determined by the Distribution Licensee;
 - (4) the impact on the social, cultural and recreational life of the community;
 - (5) the arrangement for interconnection to the Distribution System; and
 - (6) any representations and objections made by the public or affected parties for the DER where the Authority has decided to publish notice of the application.
- 10 The Bhutan Electricity Authority shall decide and issue License Exemption within thirty (30) days after the date of receipt of a complete application.
- 11 The License Exemption shall be issued by the Bhutan Electricity Authority in the form of a License Exemption Certificate as provided in **Annexure-I** and **Annexure-II**.

License Exemption Conditions

- 12 The person developing and operating the DER shall comply with the following conditions:

- (1) Generate electricity for self-consumptive use;
- (2) Engage a competent person in designing, installing and commissioning the DER;
- (3) Ensure that the operation and maintenance of the DER and the associated facilities are implemented safely as per good industry practices or standards approved by the relevant agencies;
- (4) Secure interconnections arrangements to the Distribution System for all grid-connected Distributed Energy Resources;
- (5) Not have a significant negative impact on the natural environment, health and safety of the public during its construction and operation phase;
- (6) Obtain all applicable statutory clearances from the relevant authorities;
- (7) Provide required information to the Bhutan Electricity Authority upon request for performance of its functions;
- (8) Construct and operate the wind power plant at a safe minimum distance from the nearest civilian structures such as buildings, public roads, communication facilities and other economic infrastructures;
- (9) Operate the wind power plants at all times within the minimum safe noise level prescribed by National Environment Commission;
- (10) Ensure that the building and other structures on which the rooftop Solar PV system is to be installed have adequate capability to safely bear the additional weight and wind load ;
- (11) Decommission the project at the end of the expiry of License Exemption as required by the Authority;
- (12) Inform the Authority within 30 days to revoke the Exemption and obligation thereof where the Resource Developer or Owner decides to cease the operation of the DER within one (1) month;
- (13) The Exemption period shall be valid till the actual useful life of the Distributed Energy Resource unless otherwise determined or revoked by the Bhutan Electricity Authority;
- (14) The Exemption shall not be considered by the Owner as a basis to acquire public or national or third-party properties for use of the Project; and
- (15) In the event of a dispute between the Owner and the Distribution Licensee, the parties to the dispute shall follow the dispute resolution procedure issued by the Bhutan Electricity Authority.
- (16) Should be installed within the person's own property/premises.

Regulatory Fees

13 No application fees shall be applicable for processing of License Exemption.

14 No annual license fees shall be levied.

Accounting of Energy: Metering and Billing Arrangments

15 A memorandum of understanding (MOU) for interconnection agreement shall be signed

between the BPC and the intending Owner for license exemption, indemnifying each other of associated techno-commercial risks of business operation (such as back feed and islanding) and agreeing to abide by the prevailing Electricity Act of Bhutan 2001, standards, rules and regulations, and including this guideline while owning, operating and maintaining the license exempted power plant tied to the national power grid.

- 16 The metering facilities shall have the capability for measurement of the bi-directional flow of electrical energy and net energy consumption at the point of interconnection.
- 17 The net billing arrangement shall be adopted with a settlement period of one (1) year and the reference period shall be mutually agreed upon between the Owner and the Distribution Licensee.
- 18 Accounting of energy and reconciliation for surplus energy injection into the power grid, if any, shall be done on annual basis at feed-in-tariff as determined by the BEA

Revocation of License Exemption

- 19 The Authority may revoke License Exemption if it determines the continuation of Exemption:
 - (1) Imposes a significant impact on the safety of public health or has a significant negative impact on the social and natural environment;
 - (2) Compromises the safe and efficient operation of the existing Distribution System; and/or;
 - (3) Does not fulfill the obligations as per the Exemption Conditions of this Guidelines.

Definitions

- (1) “Bhutan Electricity Authority” or “Authority” means the Authority established under Part 2 of the Electricity Act of Bhutan 2001;
- (2) “Bhutan Power Corporation” or “BPC” is the company incorporated under the Companies Act of Bhutan 2000 and license issued by the Authority for transmission, distribution and retail sale of the electricity in the country;
- (3) “Distributed Energy Resources” or “DER” means a small-scale unit of power generation from the solar PV system, wind power plant, or hydropower plants, below a generation capacity of 500kW that operates locally and is connected to an electricity Distribution System;
- (4) “Distribution Licensee” means the Bhutan Power Corporation;
- (5) “Distribution System” means any system consisting of cable, service lines and overhead lines, electrical plant and meters having a design voltage of 33 kV and below owned or operated by a Licensee for distribution or retail supply of electricity from a transmission system or generating station to the point of delivery to consumers;
- (6) “Resource Developer” and “Holder of License Exemption” is a person that has been granted exemption from the requirement to obtain a license under section 19 of the Electricity Act of Bhutan 2001;
- (7) “License” means a license issued under Part 3 of the Electricity Act of Bhutan 2001;
- (8) “Owner” means the Resource Developer, owning generating facilities below 500kW from the Distributed Energy Resources;
- (9) "Person" includes any individual, firm, company, association, partnership, or body of persons, whether incorporated or not;
- (10) “Solar PV System” means a solar PV power plant and its associated electrical supply system.

Annexure-I: Template for License Exemption Certificate - Solar PV System

LICENSE EXEMPTION CERTIFICATE

In exercise of the power conferred by the Electricity Act of Bhutan 2001, the Bhutan Electricity Authority hereby issues this License Exemption (hereinafter referred to as the “Exemption”) to the (hereinafter referred to as “Owner”) to construct and operate the rooftop/ground-mounted solar power plant and its associated electrical supply system (hereinafter referred to as “solar PV Systems”) installed on House no.... Plot no Thram no..... Village Gewog..... Thromde Dzongkhag..... on thisDay month Year with the following conditions:

- 1) The Exemption shall be valid for a total duration of consecutive years from the date of issuance of the Exemption;
- 2) Install the solar power plant of capacity kW;
- 3) Generate electricity for self-consumptive use;
- 4) Secure interconnection arrangement to a Distribution System for all grid-connected DER;
- 5) Install metering facilities that have the capability for measurement of the net energy consumption at the point of interconnection;
- 6) Adopt a net-billing arrangement with a settlement period of one (1) year and a reference period shall be mutually agreed upon between the Owner and the Bhutan Power Corporation;
- 7) Ensure that the building and structures on which the rooftop solar PV systems are to be installed have adequate capability to safely bear the additional weight and wind load;
- 8) Ensure operation and maintenance of the solar power plant safely and efficiently as per good industry practices and comply with applicable regulations and standards and prevailing directives issued by the Bhutan Electricity Authority;
- 9) The Exemption shall not be considered by the Owner as a basis to acquire public or national or third-party properties for use of the project;
- 10) Obtain all applicable statutory clearances and approval from the relevant authorities;
- 11) Provide required information to the BEA upon request for performance of its functions;
- 12) In the event of a dispute with the Bhutan Power Corporation, the parties to the dispute shall comply with the Dispute Resolution Procedure of the Bhutan Electricity Authority;
- 13) Decommission the Solar PV Systems at the end of the expiry of the Exemption as required by the Bhutan Electricity Authority;
- 14) Request the Bhutan Electricity Authority to revoke the Exemption and obligation thereof should the Resource Developer or Owner decides to cease the operation of the DER within 1 (one) month; and
- 15) The Exemption may be revoked by the Bhutan Electricity Authority under the circumstances that the continuation of the Exemption may impose risk relating to the safety of public health, social and natural environment; compromise the safe and efficient operation of the Distribution System; or may not be able to fulfill other obligations of Exemptions; or necessitates revocation of Exemptions under the provisions of the Electricity Act 2001.

Annexure-II: Template for License Exemption Certificate - Wind Power Plant

LICENSE EXEMPTION CERTIFICATE

In exercise of the power conferred by the Electricity Act of Bhutan 2001, the Bhutan Electricity Authority hereby issues this License Exemption (hereinafter referred to as the “Exemption”) to the (hereinafter referred to as “ Owner”) to construct and operate the kW wind power plant and its associated electrical supply system (hereinafter referred to as “wind power plant systems”) located on Plot no Thram noVillage..... Gewog Dzongkhag on this ... Day month Year with the following conditions:

- 1) The Exemption shall be valid for a total duration ofconsecutive years from the date of issuance of the Exemption;
- 2) Generate electricity for self-consumptive use;
- 3) Secure interconnection arrangement to a Distribution System for all grid-connected DER;
- 4) Install metering facilities that have the capability for measurement of the bi-directional flow of electrical energy and net energy consumption at the point of interconnection;
- 5) Adopt a net-billing arrangement with a settlement period of one (1) year and a reference period shall be mutually agreed upon between the Owner and the Bhutan Power Corporation;
- 6) Construct and operate the wind power plant at a safe minimum distance from the nearest civilian structures such as buildings, public roads, communication facilities and other economic infrastructures;
- 7) Ensure no significant impact on the natural environment, health and safety of the public during its construction and operation phase;
- 8) Ensure operation and maintenance of the wind power plant safely and efficiently as per good industry practices and comply with applicable regulations and standards and prevailing directives issued by the Bhutan Electricity Authority;
- 9) Operate the wind power plant at all times within the minimum safe noise level prescribed by relevant authorities;
- 10) The Exemption shall not be considered by the Owner as a basis to acquire public or national or third-party properties for use of the project;
- 11) Obtain all applicable statutory clearances and approval from the relevant authorities;
- 12) Provide required information to the BEA upon request for performance of its functions;
- 13) In the event of a dispute with the Bhutan Power Corporation, the parties to the dispute shall comply with the Dispute Resolution Procedure of the Bhutan Electricity Authority;
- 14) Decommission the wind power plant at the end of the expiry of the Exemption as required by the Bhutan Electricity Authority;
- 15) Request the Bhutan Electricity Authority to revoke the Exemption and obligation thereof should the Resource Developer or Owner decides to cease the operation of the DER within one (1) month; and
- 16) The Exemption may be revoked by the Bhutan Electricity Authority under the circumstances that the continuation of the Exemption may impose risk relating to the safety of public health, social and natural environment; compromise the safe and efficient operation of the Distribution System; or may not be able to fulfill other obligations of Exemptions; or necessitates revocation of Exemptions under the provisions of the Electricity Act 2001.