

# Regulatory Framework for Renewable Energy Generation for Self- Consumption

## المستند النظامي

قرار مجلس إدارة هيئة تنظيم المياه والكهرباء ذي الرقم (44/52/01) والتاريخ 1444/11/22هـ

## مرجعية هذه الوثيقة

في حال وجود أي استفسارات أو ملاحظات فإن المرجع فيما إلى الإدارة العامة للشؤون الفنية

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## دورة تحديث هذه الوثيقة

يتم تحديث هذا الإطار حسب ما تقتضيه الحاجة.

## لغة الوثيقة

تم إعداد هذه الوثيقة باللغة العربية والإنجليزية

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ذوالقعدة 1444هـ	Regulatory Framework for Renewable Energy Generation for Self-Consumption
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حقوق النسخ والنشر محفوظة لهيئة تنظيم المياه والكهرباء

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**Legal basis:**

The Water and Electricity Regulatory Authority (WERA) in exercise of its powers conferred under Article (4) of Electricity Law by the decision of the Royal Decree number (M/44) on 16/5/1442 H corresponding to 31/12/2020, and Article (4) and (5) of WERA's Charter by the decision of the Council of Ministers number (263) on 14/5/1442 H corresponding to 29/12/2020, WERA hereby issued the following Regulatory framework.

Disclaimer: This is a translation of the original Arabic version of this regulatory framework. It is provided for the convenience of non-Arabic speakers. The Arabic text is the official reference and shall prevail in case of any conflict between the English and Arabic versions.



## 1. PURPOSE

This Regulatory Framework aims to:

- a) Define regulatory requirements for Grid-Connected and Off-Grid Renewable Energy Generation (REG) Systems for Self-Consumption on premises.
- b) Provide consumer protection and awareness about REG Systems for Self-Consumption.
- c) Establish a regulatory framework for billing arrangements for Grid-Connected REG systems for Self-Consumption.
- d) Ensure efficient and safe construction, installation, maintenance, and operation of REG Systems for Self-Consumption.

## 2. DEFINITIONS

- 2.1 The terms and expressions, defined in the Electricity Law or its Implementing Regulations, related to the duties of WERA, shall have the same meanings in these Regulations unless the context otherwise requires.
- 2.2 The following terms and expressions, when used in these Regulations, shall have the meanings against each, unless the context require otherwise.

**Biomass** – Organic material that comes from plants and animals.

**Consultant/Contractor** – A person who carries out the design, examination, installation and maintenance of REG systems for self-consumption.

**Connection Point** – The point of connection to the electricity system of the Network for both consumption and export of electricity linked to a single meter installed on the Eligible Consumer Premises.

**Contracted Load** – The total loads of all electrical equipment installed on the Premises of the Eligible Consumer and it is contracted with the Service Provider.

**Distribution Code** – The Saudi Arabian Distribution Code issued by WERA’s Board decision No (4/18/29) dated 02/05/1429 H and any amendments thereto.

**Distribution Network** – Subject to the distribution code definition, it is a system consisting of underground cables or overhead lines, substations, and electrical equipment with a design voltage specified in the relevant distribution license to distribute electricity from connection points with the transmission system or with generation stations or cogeneration stations to the connection points connected with consumers or other distribution systems. This system includes any installations, electrical equipment, and meters owned or operated for distributing electricity. This system does not include any part of a transmission system.

**Distribution Service Provider (DSP)** – The legal entity licensed by WERA to practice electricity distribution and/or retail sale activities.

**Distribution Service Provider Business Area** – The geographical area in which the Distribution Service Provider is licensed to engage in electricity distribution and retail sales activities.

**Eligible Consumer** – A consumer who aims to install, operate and own a REG System on their Premises, and meets the requirements of this Regulatory Framework.

**Grid Code** – the Saudi Arabian Grid Code issued by WERA’s Board decision No (3/16/28) dated 01/06/1428 H and any amendments thereto.

**Maximum Capacity** – The maximum alternating current (AC) generation capacity (expressed in kVA or MVA) that the Service Provider is allowed to operate in parallel to the grid in accordance with this Regulatory Framework.

**Metering Code** – The governance of the principles for metering of all custody transfer points as part of the applicable Grid Code or Distribution Code at the Connection Point.

**Network** – Transmission network or Distribution network, as applicable.

**Premises** – A real estate that consumes electricity generated from a REG System, and adhere to requirements stipulated in Clause (5-1-a).

**REG System** – Renewable Energy Generation Systems with or without storage equipment that generate electricity primarily from renewable sources including solar, wind, Waste to Energy / biomass and that are installed on the Premises of Eligible Consumer, for the purpose of self-consumption.


**REG System Connection Agreement** – Agreement signed by the Eligible Consumer and the Service Provider; for adding a grid-connected REG Systems on the Eligible Consumer's premises, it also contains the terms and conditions for Self-Consumption Billing arrangement and operation of the REG System.

**REG System Connection** – integration of a REG system on the premises of the Eligible Consumer that is connected to the Network.

**REG System Connection Fee** – The fee paid by the Eligible Consumer to the Service Provider for connecting the REG System to the electricity system.

**Service Provider** – Distribution Service Provider or Transmission Service Provider (Wherever applicable) receiving the REG Connection Application of the Eligible Consumer and verifying the REG System is designed and installed in accordance with the provisions of this regulatory framework. As far as billing is concerned, the Service Provider is either the Principle Buyer or DSP.

**Aggregated Capacity** – The total Maximum Connected Capacity connected to the Network  
**Transmission Network** – Subject to the Grid code definition, it is a system consisting of underground cables or overhead lines, substations, and electrical equipment with a design voltage specified in the relevant transmission license to transmit electricity from connection points with other transmission systems or generation stations or cogeneration stations to connection points connected to consumers or other transmission/distribution systems. This system includes any installations, electrical equipment, and meters owned or operated for transmitting electricity, and does not include any part of a distribution system.



**Transmission Service Provider (TSP)** – The legal entity licensed by WERA to practice electricity transmission activities.

**Self-Consumption** – The use of self-generated electricity by an Eligible Consumer to satisfy their demand on their Premises.

**Self-Consumption Billing/ Net Billing** – The energy exchange and financial arrangements between an Eligible Consumer and a Service Provider linked to a Connection Point.

**Small Scale Solar PV Regulatory Framework** – The Small Scale Photovoltaic Installations Regulatory Framework issued by the Board decision No (182) dated 03/11/1438 H and any modification to thereafter.

**Storage** – The conversion of electrical energy into a form of energy, which can be stored, and converted back into electrical energy.

**Transmission Use of System (TUoS) Charges** – Charges for use of the transmission system approved by WERA.

**Waste to Energy (WtE)** – The process that generates electricity and/or heat from waste treatment, or from fuel from waste.

**Wind or Wind Energy** – Electricity from the motion of the air; transformed into electrical energy using wind turbines or wind energy conversion systems.

**Year** – Gregorian year.






### 3. SCOPE AND APPLICATION

- 3.1 This Regulatory Framework applies to the consumer who wishes to obtain electricity from REG for the purpose of self-consumption on their Premises.
- 3.2 This Regulatory Framework applies to all technologies in REG Systems with capacities greater than 1kW and not exceeding 30MW for Self-Consumption purposes in the Premises, except for those mentioned in Clause (3.4).
- 3.3 This Regulatory Framework applies to the Service Providers, the Eligible Consumers, and any other entity involved in:
  - a) Adding grid-connected REG Systems on Premises.
  - b) The development and operation of REG Systems.
- 3.4 This Regulatory Framework does not apply to solar PV systems up to 2MW capacity to which the Small Scale Solar PV Regulatory Framework applies.
- 3.5 This Regulatory Framework only allows the Use Cases described in Annex 4. Except for these Use Cases described, it is not allowed to establish any renewable energy generation systems for self-consumption, and in all cases the generation and consumption must be in the same Premises.

#### 4. GENERAL PROVISIONS

- 4.1 WERA is the final reference for interpretation of any article or provision of this Regulatory Framework or for any discrepancy between this Regulatory Framework and any other regulatory documents.
- 4.2 The Governor undertake the tasks and duties assigned to WERA, except for those stipulated to be undertaken by the Board, and the Governor may delegate any of these tasks and duties to whomever they deem appropriate.
- 4.3 Electricity from REG systems is subjected to the provisions of the Electricity Law by Royal Decree decision M/44 on 16/5/1442 H and the provisions of Electricity Law's Implementing Regulations Related to WERA's Duties, and the Energy Supply Law by Royal Decree decision M/80 on 04/06/1444 H, and the targets of the energy mix, and the approved strategies by the Supreme Committee for Energy Mix Affairs for Electricity Production and Enabling Renewable Energy Sector and WERA's Licensing Rules and Procedures.
- 4.4 It is not permitted to start any preparatory work for the purpose of establishing REG systems (including preparing planning, conducting studies and announcing publicly) before obtaining the necessary study authorisation from WERA.
- 4.5 It is not allowed to commence with any of the construction works prior to obtaining a license from the WERA.
- 4.6 The Service Provider shall:
- a) Comply with all applicable laws and regulations and adhere to the approved standards and technical codes and any other regulatory requirements approved by WERA.
  - b) Guarantee all rights of the Eligible Consumer provided for by this regulatory framework and any other applicable laws and regulations.
- 4.7 The Service Provider shall process consumers' requests to connect REG systems for self-consumption without discrimination on a first come first served basis.
- 4.8 The Eligible Consumer shall comply with all applicable laws, regulations and other relevant requirements in the KSA.
- 4.9 The Eligible Consumer shall always ensure that its REG Systems comply with this Regulatory Framework, the Distribution Code and the Grid Code (as applicable) and any other applicable technical standards and codes. WERA and the Service Provider shall be notified immediately of any planned modification of the technical capabilities of the REG systems. Additionally, the Service Provider shall be notified of any incidents or failures which may temporary or indefinitely affect compliance.

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- 4.10 The Service Providers shall liaise with the Saudi Standards, Metrology and Quality Organization (SASO) to ensure that certificated REG System equipment are used when applicable.
- 4.11 The Eligible Consumer ensures that a Consultant/Contractor undertakes regular and routine maintenance of the REG System.
- 4.12 In case of existence of a complaint or dispute in any matter relating to this regulatory framework, any entity may file his complaint with the Service Provider in accordance with the procedures for handling Consumers' complaints approved by WERA. If no resolution for this complaint or dispute is reached amicably or if is not resolved by the service provider through these procedures, the Person shall have the right to file his complaint to WERA for resolution thereof.



## 5. ELIGIBLE CONSUMER AND REG SYSTEM CAPACITY

5.1 Any consumer wishing to install a REG System for Self-Consumption on their Premises must satisfy the following requirements to be an Eligible Consumer:

- a) The Consumer must own or have legal right of possession of the Premises on which the REG System is proposed to be installed. The legal right of possession needs include a statement of eligibility to use the Premises for the purposes of constructing and installing a REG System.
- b) The Maximum Capacity in one Premises shall not exceed 30MW.
- c) For the grid-connected Premises, the maximum connected capacity of the renewable energy system to be installed in this Premises must not exceed its Contracted Load.
- d) Obtain a study authorisation from WERA in accordance with the provisions of the Electricity Law and its Implementing Regulations.

5.2 If the Consultant/Contractor is responsible for owning, maintaining and operating the REG System under a service agreement with the Eligible Consumer to meet the load demand, the Consultant/Contractor must obtain licenses required to engage in the activity of electricity generation, and the generation and consumption be in the same Premises.

## 6. PROCEDURE FOR THE INSTALLATION OF A REG SYSTEM

- 6.1 Those wishing to install REG systems must apply to WERA to obtain the necessary licenses and permits for their systems in accordance to paragraphs 4-4 and 4-5 of this Regulatory Framework.
- 6.2 For grid-connected REG Systems, the Service Provider is responsible for receiving the REG Connection Application of the Eligible Consumer and for verifying that the REG System is designed and installed in accordance with the provisions of this regulatory framework.
- 6.3 Each Service Provider shall setup a REG System Connection Process designed in accordance with the provisions of this Regulatory Framework and the framework guidelines stipulated in Annex 3 of this regulatory framework; the REG System Connection Process shall clearly define the following.
- a) The roles and duties of the Parties in the process.
  - b) All required documents, data and forms and how they shall be submitted.
  - c) The maximum time for the completion of the different activities defined in the process.
  - d) The template of the Connection Agreement.
  - e) The Saudi Standards, International Standards and all applicable codes for the design, construction, connection and operation of the REG Systems and all studies or certificates necessary for proving compliance.
  - f) The analysis required to be performed by the Service Provider during the application review stage and the applicable acceptance criteria conducted to ensure there is no impact on the network, and it includes the studies of planning and operation stipulated in relevant Codes.
  - g) A change procedure for a REG System for which the REG System Connection Process has already been completed.
  - h) A change procedure for a REG System already in operation.
- 6.4 The REG System Connection Processes designed by the Service Providers shall be submitted to WERA for approval and shall be made publicly available by the Service Providers on their website.



## 7. METERING SYSTEMS PROVISIONS

- 7.1 Metering of electricity generated for self-consumption by REG Systems shall comply with the Grid Code and the Distribution Code as applicable.
- 7.2 Metering of the exchange of energy between the Service Provider and the Eligible Consumer at the Connection Point shall comply with the Metering Code.
- 7.3 The Service Provider shall install a separate metering point at the Connection Point of the REG Systems dedicated to monitoring and recording the energy production of the REG System in accordance with the Metering Code. The Eligible Consumer shall bear the cost of the installation and recurring running costs.
- 7.4 The electrical design documentation of the meter installation shall comply with the Metering Code.
- 7.5 Prior to commissioning, the Service Provider shall inspect the REG System to ensure that the metering systems comply with the Metering Code and safety standards.

## 8. NET BILLING ARRANGEMENT PROVISIONS

- 8.1 The Net Billing arrangement is a mandatory arrangement for energy exchange and clearing between the Eligible Consumer and the Service Provider.
- 8.2 The Eligible Consumer can benefit from the financial balance of the Net Billing arrangement for several consumption accounts under the same Eligible Consumer and under the same Service Provider.
- 8.3 Energy can be considered Self-Consumed only if it is produced and consumed within the same metering interval. Spill energy generated from the REG System will be exported to the grid and recorded in the Billing system as financial balance according to the financial fees explained in Annex 2.
- 8.4 The financial balance shall be carried forward from the present Billing Cycle to the next cycle and to be deducted from the electricity consumption bill of the Premises itself, considering Clause (8.2).
- 8.5 The Service Provider is required to bill the Eligible Consumer for the energy supplied after deduction of the financial balance (if any) of the energy exported to the grid from the REG System affiliated to the Eligible Consumer.
- 8.6 The Service Provider shall pay the accrued credit amount of Spill energy, if any, upon Termination of the REG system Connection Agreement according to the fees prescribed in Annex 2, within sixty (60) days of the Termination Date.
- 8.7 The validity period of the accrued financial balance for Spill energy is (12) months from the date accrued.
- 8.8 Transmission Use of System (TUoS) regulations applies to Premises connected to the Transmission Grid.
- 8.9 The Service Provider shall develop an appropriate arrangement for a consumption bill for an Eligible Consumer and submit it for WERA's approval. The bill shall include as a minimum the following information:
- a) The number of energy units exported.
  - b) The number of energy units imported, and the time-of-use periods, if applicable.
  - c) The financial credit of accumulated energy units due to Spill energy generated and exported to the grid.
  - d) The balance of the financial value of energy units carried forward to the following billing cycle.
- 8.10 This section is not applicable for Off-grid REG Systems.



## 9. REPORTING

The Service Provider shall submit a report to WERA no later than 31 January of each calendar year, containing the minimum following information:

- a. The aggregated peak capacity of REG Systems connected during the year.
- b. The uptake of REG Systems by type of Eligible Consumers (Residential, Commercial, Industrial, Agricultural, Government).
- c. The number of REG Systems approved and connected.
- d. The number of REG Systems approved but not yet connected.
- e. The minimum/maximum/average duration for connecting to the Distribution or Transmission System from the time an application is submitted.
- f. The monthly and yearly total energy units generated by REG Systems.
- g. The minimum/maximum/average peak generation from REG Systems; and
- h. The total energy units exported from REG Systems to the grid monthly and yearly.
- i. Technical and regulatory issues arisen in the implementation of the present Regulatory Framework.
- j. Actions undertaken to overcome the aforementioned issues related to the implementation of this Regulatory Framework.






## 10. AWARENESS RAISING

- 10.1 In coordination with WERA, the Service Providers must work towards raising the Eligible Consumers' awareness regarding REG Systems.
- 10.2 The Service Providers must make the relevant information and guidance about installing and connecting REG System available to Eligible Consumers.
- 10.3 The Service Providers shall conduct awareness programs, in liaison with WERA, for potential consumers intending to install REG Systems on their Premises.
- 10.4 The Service Providers shall provide available information, data and statistics on the deployment of REG Systems, including number of systems, type of installations and capacities installed.

## **11. SPECIFIC PROVISIONS FOR DIFFERENT TYPES OF REG SYSTEMS FOR SELF-CONSUMPTION**

- 11.1 REG Systems connected to the Transmission Grid
- 11.1.1 For each calendar year, the TSP shall provide the Self-Consumption Billing arrangement to all Eligible Consumers connected to the Transmission Grid provided that the Aggregated Capacity of the REG Systems connected to the Transmission Grid under the Self-Consumption Billing arrangement shall not exceed 3% of the KSA power system peak load of the previous year.
- 11.1.2 The TSP shall maintain updated estimates of the remaining available capacity for new REG Systems with respect to the capacity stipulated in Clause (11.1.1) and publish it on its websites.
- 11.1.3 Should the above capacity be reached, the TSP may continue receiving, processing and approving connection requests for new REG Systems. However, the TSP shall put approved connection requests on hold until the following year. The connection queue shall be managed on a 'first approved first connected' basis.
- 11.1.4 The TSP shall be committed to develop and adopt enhanced network components, operation and planning tools and procedures which fully consider the presence of REG Systems in their networks and which can release the operational constraints limiting the connection of REG systems to the power system.
- 11.1.5 WERA shall annually review the capacities stipulated in Clause (11.1.1) taking into account the periodic reporting activities of Article (9).
- 11.2 REG Systems connected to the Distribution Grid
- 11.2.1 The DSP shall provide the Self-Consumption Billing arrangement to all Eligible Consumers connected to their Distribution Grids provided that the Aggregated Capacity of the REG Systems connected to all the low voltage and medium voltage distribution networks of the DSP under the Self-Consumption Billing arrangement shall not exceed 3% of the DSP operating area peak load of the previous year.
- 11.2.2 The DSP shall maintain updated estimates about the remaining capacity available for new REG Systems with respect to the capacity stipulated in Clause (11.2.1) and publish them on their websites.
- 11.2.3 Should the above capacity be reached, the DSP may continue receiving, processing and approving connection requests for new REG Systems. However, the DSP shall put approved connection requests on hold until the following year. The connection queue shall be managed on a 'first approved, first connected' basis.



11.2.4 The DSPs shall be committed to develop and adopt enhanced network components, operation and planning tools and procedures which fully consider the presence of REG Systems in their networks and which can release the operational constraints limiting the connection of REG systems to their networks.

11.2.5 WERA shall annually review the capacities stipulated in Clause (11.2.1) taking into account the periodic reporting activities of Article (9).

### 11.3 Off-Grid REG Systems

Off-Grid REG Systems shall use the same feeding voltage as the ones adopted by the Service Providers for grid-connected REG systems and stated in the Grid Code and Distribution Code.

### 11.4 REG Systems with Storage

11.4.1 The installation of storage equipment on the Premises of the Eligible Consumer shall be possible within the provisions of this Regulatory Framework provided that:

- a) The storage equipment is combined with REG System.
- b) The power capacity (MW) of the storage equipment does not exceed the Maximum Connected Capacity of the REG System.
- c) The purpose of storage system is to meet self-consumption demand at the Premises.
- d) The storage of a grid-connected REG System is operated to reduce the load-generation imbalances caused by the Eligible Consumer.

11.4.2 For grid-connected REG Systems, the Service Provider shall define in its REG System Connection Process the documentation which shall be presented by the Eligible Consumer to give evidence of the use of the storage for an increase of the self-consumption and a reduction of the load-generation imbalances.



## ANNEX 1

### REG

## Connection Agreement Form

### **Preamble:**

1. The phrases and expressions defined in this regulatory framework shall have the same meaning for the purpose of implementation of this Agreement, unless the context otherwise requires.
2. This Agreement states the terms and provisions agreed upon between the Service Provider and the applicant. The Agreement includes the application submitted by the applicant and all the basic data required from the applicant.
3. This Agreement refers to different regulatory documents such as the Grid Code, the Distribution Code, and this regulatory framework for REG for self-consumption and the Consumers' Complaints Handling Procedures, which may be accessed via the Service Provider's website or by visiting one of the branches of the Service Provider or WERA's website.

**First:** The preamble is considered an integral part of this Agreement. The Eligible Consumer may install the REG Systems and conduct operational tests upon signing the Application Form and this Agreement.

**Second:** REG Systems Construction, Connection and Operation Procedures:

The Eligible Consumer may construct, connect and operate the REG System according to this regulatory framework upon completion of inspecting the REG Systems by the Service Provider and checking the compliance of the REG System with the requirements of the Distribution Code or Grid Code and any other applicable codes and standards.

**Third:** Safety and Regular Maintenance Procedures

- 3-1: The Eligible Consumer shall abide by the operation and maintenance procedures and regular maintenance requirements of the REG Systems to ensure continuous compliance with the requirements of the Distribution Code or Grid Code, and any requirements imposed by the Service Provider.
- 3-2: For safety purposes, the Eligible Consumer shall maintain safe and easy access to the location of the Systems.

**Fourth:** REG Systems Inspection:

- 4-1: Without prejudice to the provisions of this Regulatory Framework for REG for self-consumption, the Service Provider may inspect the Metering Equipment and the REG Systems at the time it deems appropriate with any means it considers suitable, provided that the Service Provider notifies the Eligible Consumer at least two (2) days prior to the inspection date. The Eligible Consumer shall allow the Service Provider to conduct the inspection without hindrance.
- 4-2: In the event that the REG System is disconnected due to violation of the terms and conditions of this Agreement, the Eligible Consumer may apply for re-inspection after making the required amendments and addressing any issues raised by the Service Provider. The Eligible Consumer shall bear the cost of re-inspection fees approved by WERA. The Eligible Consumer and the Service

Provider shall agree upon the date of re-inspection within five (5) business days of the application submission for re-inspection.

**Fifth:** Disconnection of the REG Systems:

The Service Provider may temporarily disconnect the REG System of the Eligible Consumer in the following cases:

- 5-1: In case of scheduled disconnection of the Distribution or Transmission System.
- 5-2: In case of non-scheduled disconnection of the Distribution or Transmission System.
- 5-3: If the Service Provider finds that the operation of the REG Systems is not complying with the terms and provisions of the Distribution Code or Grid Code and/or this Agreement.

**Sixth:** Limit of liability for compensation:

- 6-1: The liability of any party towards the other party for compensation for a material damage shall be limited to the level of direct damage actually incurred. No party, under any circumstances, shall be liable towards the other party for any indirect damage.
- 6-2: The Eligible Consumer shall be fully responsible for the internal wirings of the REG Systems after the breaker of the Service Provider from the side of the Eligible Consumer. Therefore, the Service Provider shall not bear any legal or financial responsibility as a result of any default, error or change in the connection equipment of the REG Systems.

**Seventh:** Calculation of Self-Consumption Billing Invoices:

- 7-1: For the purposes of calculation of self-consumption billing, the amount of energy exported from the REG Systems shall be calculated from the date on which the Service Provider notifies the eligible consumer about the possibility of actual operation of these systems.
- 7-2: If the financial value of electrical energy imported by the Eligible Consumer is higher than the financial balance of the quantity of the electrical energy exported from the REG System to the Distribution System or Transmission system, the Eligible Consumer shall, on a monthly basis, pay the due value of the Self-Consumption Billing invoice to the Service Provider according to the charges approved.
- 7-3: If the financial value of the electrical energy exported from the REG System to Distribution or Transmission System is higher than the financial value of the electrical energy imported by the Eligible Consumer, the Service Provider shall forward the balance amount to the bill of the next month. The settlement shall be in accordance with the provisions of this regulatory framework for REG Systems.
- 7-4: In case the Eligible Consumer fails to pay the due consumption invoice, the Service Provider shall have the right to disconnect the electricity from the Eligible Consumer according to the instructions regulating the cases for disconnection of electrical power as stated in the Electrical Service Provision Manual approved by WERA.
- 7-5: The calculation method and the approved fees is subject to revision and change upon instruction by WERA.

#### **Eighth:** Complaints or Dispute Resolution

In the event of a complaint or dispute regarding any matter related to this Agreement, its implementation or any aspects related to the REG Systems Regulatory Framework arises, the Eligible Consumer may submit his complaint to the Service Provider according to the consumer complaints Handling Procedure approved by WERA. If a satisfactory solution to the complaint or dispute is not reached between to the Service Provider and the Eligible Consumer, through these procedures, the Eligible Consumer shall have the right to submit its complaints to WERA for arbitration.

#### **Ninth:** Termination of the Agreement

No Party may terminate this Agreement unless pursuant to the following cases:

- 9-1: The Eligible Consumer may terminate this Agreement at any time by (30) business days' written notice to the Service Provider, prior to the termination date.
- 9-2: The Service Provider may terminate this Agreement by written notice to the Consumer (30) business days prior to the termination date, if the Eligible Consumer violates any of the provisions of this Agreement and not remedying such violation within 15 business days of the receipt of the written notification.
- 9-3: The Service Provider may terminate the Agreement if the Eligible Consumer performed any amendment on the REG System that affects its contractual relation with the Service Provider without written consent of the Service Provider.
- 9-4: In case of termination of the Agreement, the REG Systems shall be disconnected from, as the case may be, the Transmission or Distribution System and shut-down within twenty (20) business days of the date prescribed for termination.

#### **Tenth:** Term of the Agreement

The term of validity of this Agreement shall be twenty (20) years commencing on the date of signature of this Agreement by the Parties, unless terminated earlier in accordance with its terms. This term may be extended for an additional period of five (5) years subject to mutual agreement between the Eligible Consumer and the concerned Parties.

**Eleventh:** This Agreement has been executed in two original copies in Arabic language; each Party has a copy to work accordingly.

**May Allah grant us success**

Eligible Consumer	
Name	
Signature	
Date	
Service Provider	
Name of the Employee	
Date	
Connection Application Number	
Signature	



## ANNEX 2

### Fees and Charges



## 1. Fees and charges for services provided by the Service Provider

1.1. The fee for the services provided by the TSP or DSP to connect REG system for self-consumption to the network is as follows:

Service	System Capacity (kW)		Fees (SAR)
REG System Application	1	4,000	1,500
	4,001	30,000	5,000
REG System Connection	1	4,000	15,000
	4,001	30,000	30,000
REG System Re-inspection*	20% of the REG System Connection fee		

\* In the event that the REG Systems is disconnected due to violation of the terms and conditions of the Connection Agreement, the Eligible Consumer may apply for re-inspection of these Systems after making the required amendments or remedying any remarks of the Service Provider.

1.2. The fees stipulated in Clause (1.1) does not apply to solar PV systems up to 2MW capacity and connected to the DSP, to which the Small Scale Solar PV Regulatory Framework applies.


## 2. Charges for Spill Energy exported

Consumption Category	Tariff (SAR/kWh)
All Eligible Consumption categories	To be determined by WERA



## ANNEX 3

# Framework Guidelines for the REG System Connection Process for Self-Consumption



The REG System Connection Processes of the Service Providers shall be designed in accordance with the provisions of the Distribution Code or the Grid Code as applicable as well as with the guidelines of Annex 3.

The REG System Connection Process shall comprise the following main phases:

- Obtaining WERA's Study Authorisation
- REG Feasibility Study for REG System Integration
- REG System Application
- Obtaining WERA's Generation License
- REG System Connection

### **1. Obtaining WERA's Study Authorisation**

Before commencing with any preparatory work for the purpose of establishing REG system (including preparing planning, conducting studies and announcing publicly), shall obtain the necessary study authorisation from WERA in accordance to the provisions of the Electricity Law and its Implementing Regulations Related to WERA's Duties, and Licensing Rules and Procedures published by WERA.

### **2. REG Feasibility Study for REG System Integration**

#### **2.1 Selection of REG System Consultant/Contractor**

Any Eligible Consumer wishing to install a REG System may select a Consultant/Contractor. The Consultant/Contractor shall be accountable, on behalf of an Eligible Consumer, for all the interactions with the Service Provider during the REG System integration and Connection Process, as well as for the REG System Design and the Electrical Installation works.

#### **2.2 Feasibility Study**

The Eligible Consumer is responsible for all preliminary studies related to the cost assessment of the REG Systems, the estimation of revenues and savings based on the power produced by the REG System, the consumption rates of the Consumer and the expected return on investment.

### 3. REG System Application

#### 3.1 Application Process

The REG System Connection Process shall be commenced by:

- a- Submission of a REG Connection Application Form to the Service Provider.
- b- Proof of payment of the Application fee defined in Annex 2 of this regulatory framework.

A separate REG Connection Application shall be submitted for each REG system. REG Connection Applications for capacity expansion of an existing REG System shall be treated the same way as a new REG System is treated. The REG System generation and consumption shall be on the same Premises.

#### 3.2 REG Application Screening

Upon receipt of the REG Connection Application, the Service Provider shall:

- a- Verify the completeness of the REG Connection Application, and notify the applicant of any missing document or information which shall be provided within the time defined by the Service Provider in its REG System Connection Process.
- b- Notify the applicant when the REG Connection Application is complete.


A REG Connection Application shall be considered complete when all the items indicated by the Service Provider in its REG System Connection Process have been received and validated by the Service Provider.

#### 3.3 REG Application Full Review

The Service Provider shall review a complete REG Connection Application. The REG Application Review consists of:

- a- Verifying the compliance of the REG Connection Application with the provisions of this Regulatory Framework.
- b- Assessing the impact of the proposed REG System on the network. It is the responsibility of the Service Provider to define both the analysis and the acceptance criteria of the grid impact assessment as well as to perform the analysis with the data and information of the REG system included in the REG Connection Application.

For REG Systems to be connected to medium voltage or low voltage distribution networks, the Service Provider shall, in consultation with the relevant Transmission Service Provider (if applicable), define procedures and criteria identifying single or clusters of queued REG Systems which are not electrically independent from the transmission system and whose impact on the grid is potentially not limited to the distribution network which the REG systems have to be connected to but shall rather be extended



to the transmission system. For these REG Systems, the Service Provider shall involve the Transmission Service Provider in the grid impact assessment.

c- If the REG Connection Application has an acceptable impact on the grid:

- The Service Provider shall approve and send back to the applicant initial REG System Connection Application approval. The initial approval is for the purpose of applying for WERA's license, and it shall include the REG System Connection fee. The REG System Connection Application fee shall be according to Annex 2 of this Regulatory Framework.
- The validity of an approved REG Connection Application shall be defined by the Service Provider in its REG System Connection Process.
- The Service Provider shall assign to the approved REG System part of the REG hosting capacity and the applicant shall proceed with the next steps of the REG System Connection Process. If, at the end of the validity period of an approved REG Connection Application and upon verification by the Service Provider, the REG System has yet to be connected for reasons which are only attributable to the Eligible Consumer, the Service Provider is entitled to release the capacity of the REG hosting capacity attributed to the REG System in order to attribute such capacity to other approved REG Connection Applications.

d- In the event that REG Application Review is not accepted:

- The Service Provider shall notify the applicant with a report identifying the reasons of such outcome. If possible, the report shall also identify possible amendments to the REG Connection Application which may allow for a positive outcome of the REG Application Review.
- The applicant is granted a grace period to accept the amendments proposed by the Service Provider or to propose other changes.
- The duration of the grace period shall be defined by the Service Provider in its REG System Connection Process.

- The Service Provider shall review the resubmitted REG Connection Application without any additional costs and keeping it in the same queue within the given grace period.

#### **4. Obtaining WERA's Generation License**

Before proceeding with the installation works of the REG System, the Eligible Consumer shall obtain WERA's generation license in accordance to Clause (4.5) of the Regulatory Framework, and go through all the other licensing procedures necessary for the construction, installation and operation of the REG System. The licensing procedures may involve more than one stakeholder and the Eligible Consumer shall obtain all necessary permits and licenses from the concerned stakeholders for building, installation and operation of the REG System.

#### **5. REG System Connection**

##### **5.1 REG System Connection Agreement**

When the Eligible Consumer has been granted all the necessary permits and licenses for the construction of their REG System:

- a- They shall sign a REG System Connection Agreement with the Service Provider. The REG System Connection Agreement shall set out the terms and conditions for the Self-Consumption Billing arrangement and for the future operation of the REG System in accordance with this regulatory framework.
- b- The Service Provider shall provide the applicant with the REG System Connection Agreement.
- c- The applicant shall submit two signed copies of the REG System Connection Agreement to the Service Provider.
- d- The applicant shall also pay the REG System Connection fees as calculated and indicated in the notification of approval of the REG System Connection Application.
- e- After receipt of the REG System Connection fees and the two signed copies of the REG System Connection Agreement, the Service Provider shall countersign the two copies and shall send one copy back to the applicant within ten (10) Business Days.

## 5.2 Construction and Installation of REG System


Once the REG System Connection Agreement is signed by the parties and the REG System Connection Fee is paid,

- a- The Service Provider shall start, if applicable, the procurement, construction and installation of any transmission or distribution upgrades and/or interconnection facilities necessary for the connection of the REG system.
- b- The Eligible Consumer can proceed with the construction of the REG System. The REG System shall be designed, built, installed and cold commissioned in accordance with the terms of the REG system Connection Agreement, the national codes and standards as well as with international standards and best practices. National codes and standards shall always prevail.

## 5.3 REG Inspection & Meter Installation

When all civil and electrical works of the REG System have been completed and the REG System is ready for energization:

- a- The applicant shall submit a REG Inspection Application which informs the Service Provider that the REG System is ready for inspection. The REG Inspection Application shall indicate all preliminary information indicated in the REG System Connection Process as well as the date from which the REG System is available for the inspection.
- b- On an agreed date, the Service Provider shall perform an on-site inspection to check that the REG System is built and installed according to the provided documentation and in compliance with the terms of the REG system Connection Agreement and the applicable national electric codes and standards.
- c- If the REG System Inspection has a positive outcome, the Service Provider shall install the metering system(s) according to the Metering Code and the Service Provider's Codes of practice for Metering for the Connection Point and the Monitoring of Energy Production by the REG Systems.
- d- Following successful completion of the REG System Inspection and the installation of the meter(s), the Service Provider shall issue a Final Operational Notification, which certifies that the REG System is compliant with the Regulatory framework and that the electricity production can start.



In case the full compliance of the REG System cannot be established from the sole information and documents provided by the applicant:

- a- The Service Provider may ask the Eligible Consumer to carry out specific tests to demonstrate full compliance.
- b- The Service Provider shall deliver a Limited Operational Notification which allow the energization and use of the connection for the sole scope of performing these compliance tests.
- c- During the period of validity of the Limited Operational Notification, the Eligible Consumer is allowed to use the connection and to exchange power with the grid only for the purpose of the tests and according to a scheduling agreed with the Service Provider.
- d- At the positive completion of the tests, the Service Provider shall issue the Final Operation Notification.

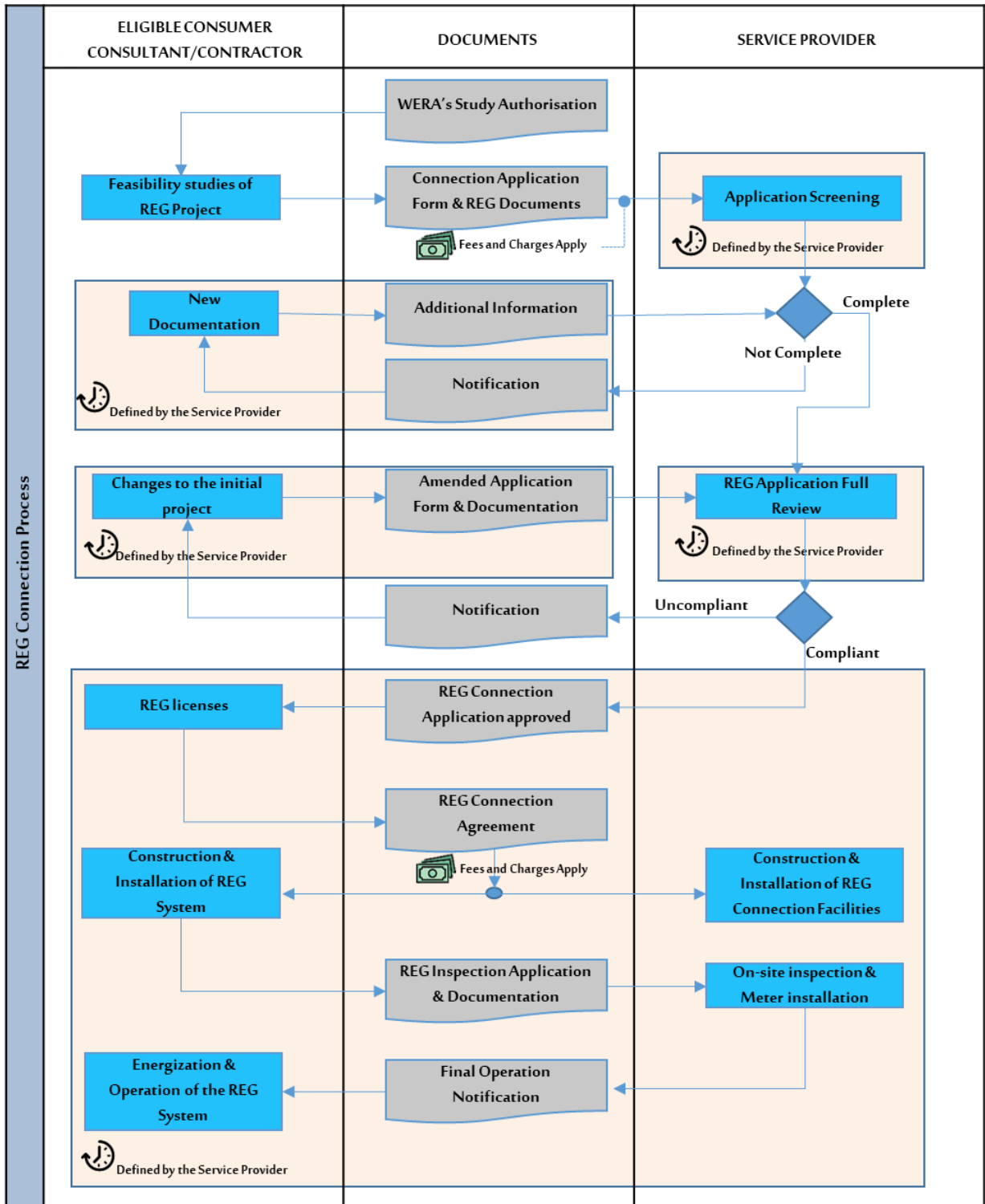
#### 5.4 REG Energization & Operation

Upon receipt of the Final or Limited Operational Notification, the REG System can be energized for carrying out the commissioning. The Service Provider may witness the commissioning tests. After the commissioning tests have been successfully completed, the REG System can be operated in parallel with the network. When deemed necessary, the Service Provider is entitled to ask the Eligible Consumer to sign a REG System Operational Agreement which defines the roles and duties of the Parties for the operation of the REG System.



# 1. REG Connection Process Flowchart

خطأ! لم يتم العثور على مصدر المرجع. A flowchart of the REG Connection Process is illustrated in.





## ANNEX 4

### Allowed Use Cases

## Overview Use Cases

The Regulatory Framework applies to the Use Cases below, and described further in the table and the graphs below.

1. Self-consumption on a Premises connected to Distribution Grid (DG) or Transmission Grid (TG)
2. Off-grid self-consumption on a Premises not connected to DG nor TG

Table 1 “Use Case Overview” shows for each Use Case the following items:

- Use Case Identifier
- Short Description
- If connected to DG or TG

After the Use Case overview, the main components of each Use Case are shown in a graphical format.

**Table 1 Use Case Overview**

Use Case		Description	DG	TG
1	Connected to the distribution network	Generation and self-consumption on Premises connected to the distribution network (Generation and consumption is on the same Premises)	✓	✗
2	Connected to the transmission network	Generation and self-consumption on Premises connected to the transmission network (Generation and consumption is on the same Premises)	✗	✓
3	Off-grid	Off-grid generation and self-consumption on Premises (Generation and consumption is on the same Premises)	n/a	n/a

**Use Case (1):** Generation and self-consumption on Premises connected to the distribution network

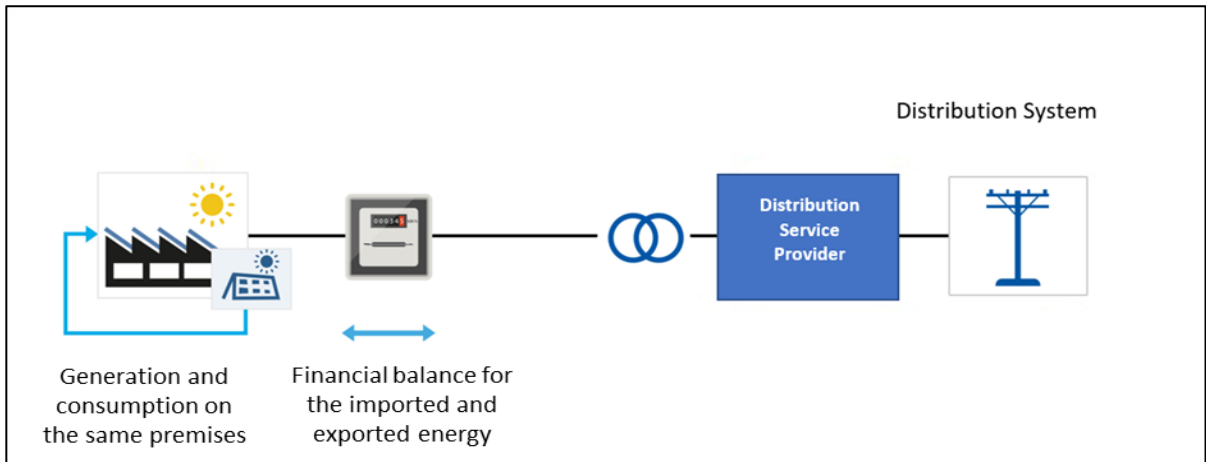


Figure 1: Generation and self-consumption on Premises connected to the distribution network

**Use Case (2):** Generation and self-consumption on Premises connected to the transmission network

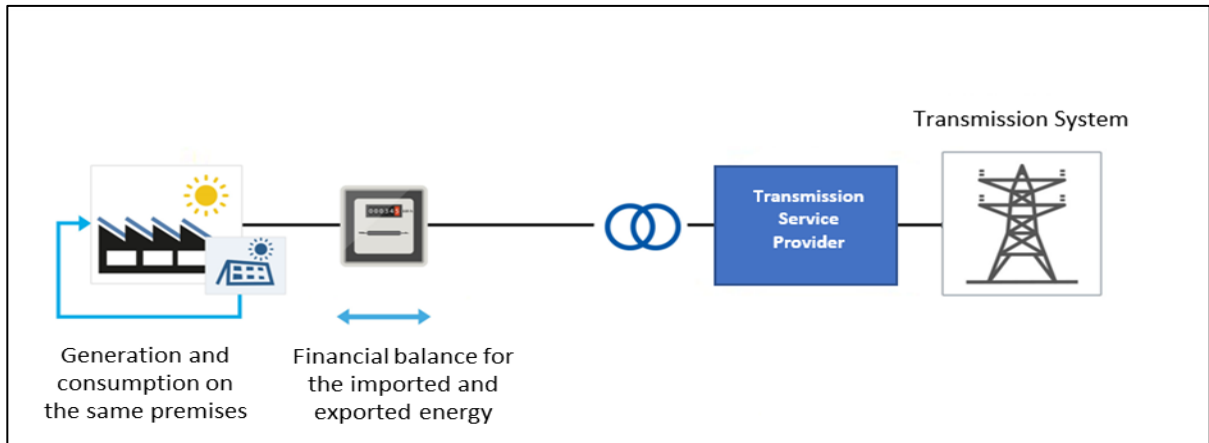


Figure 3: Generation and self-consumption on Premises connected to the transmission network

**Use Case (3):** Off-grid generation and self-consumption on Premises

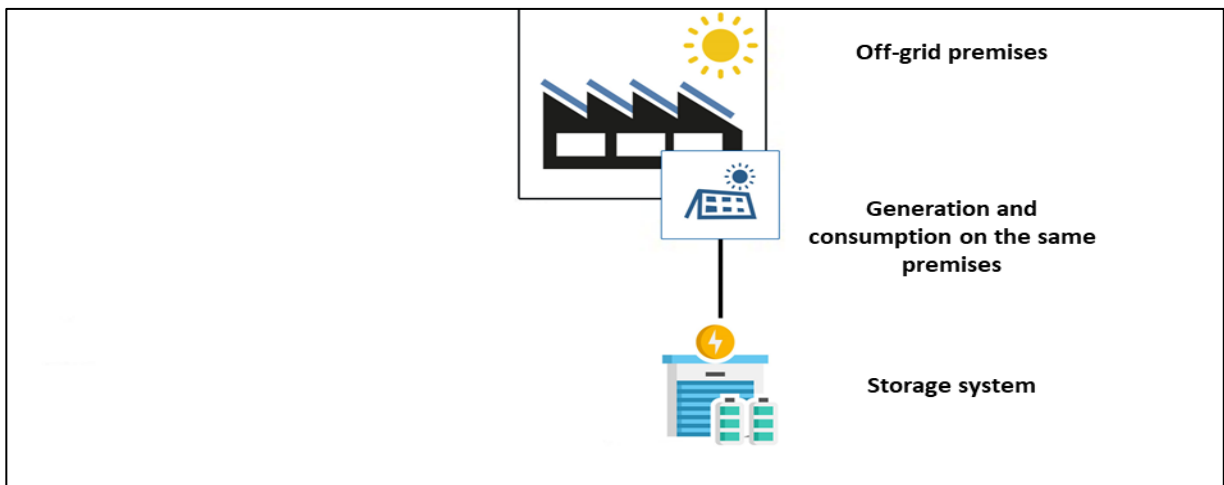


Figure 4: Off-grid generation and self-consumption on Premises



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