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General terms and conditions for connection of an Embedded Generator

1. Background

WHEREAS the Customer has applied to eThekwini Municipality for the connection of an Embedded Generator to the distribution network and the eThekwini Municipality is prepared to approve the connection in accordance with the terms and conditions governing:

(i) Physical connection of the Embedded Generator to the distribution network.
(ii) Access to and use by the Customer of the Distribution Network in connection with its generation undertaking at the Embedded Generator; and
(iii) The operational interface between the Embedded Generator and the distribution network.

2. Definitions

The following definitions and expressions shall have the meanings hereby assigned to them except where the context otherwise requires:

2.1 "**Anti-Islanding**" means the ability of the Embedded Generator to instantly automatically disconnect the generator from connection to the Distribution Network whenever the Distribution Network has lost the supply of power from the national electricity grid, thus preventing the export of electricity to the Distribution Network from the Embedded Generator. This is done primarily to protect municipal workers who may be working on the municipal electrical grid and who may be unaware that the municipal electrical grid is still being energized by the Embedded Generator.

2.2 **"Application Form"** means the official municipal Application Form to apply for the connection of an embedded generator to be filled in by the Customer.

2.3 "**Certificate of Compliance**" means a certificate of compliance issued in terms of the Electrical Installation Regulations, 2009, issued in terms of the Occupation Health and Safety Act (Act 85 of 1993).

2.4 **"Codes**" means the Distribution Code, the South African Grid Code, the Grid Connection Code for Renewable Power Plants or any other code, published by NERSA, as applicable and as amended, modified, extended, replaced or re-enacted from time to time.

2.5 "**Commissioning**" means in relation to the Embedded Generator, the process of testing to demonstrate whether the plant and equipment meets the applicable requirements and specifications of the Code(s) and the Municipality's Technical Requirements for the commencement of commercial operation.

2.6 "**Competent Authority**" means the Government of the Republic of South Africa, or any local government, ministry, department, political subdivision or regulating entity and any person under the direct or indirect control of any such government exercising executive, legislative, judicial, regulatory or

administrative functions of or pertaining to government or any other governmental entity, instrumentality, agency, authority, corporation, committee or commission, or any independent regulatory authority, in each case within South Africa, and any successor to or any assignee of any of the foregoing.

2.7 “**Connection Charge**” means the charge(s) recouped or to be recouped by the Municipality from the Customer for the cost of connecting the Embedded Generator to the Distribution Network, as per the currently applicable official municipal tariffs.

2.8 “**Consents**” means all approvals, planning approvals, consents, authorisations, notifications, concessions, decrees, waivers, privileges, acknowledgements, agreements, licenses, permits, decisions, clearances or similar items issued by and obtained from any Competent Authority in favour of the Customer, including for the purposes of clarity the Codes.

2.9 "**Distribution Network**" means the Municipality's network infrastructure consisting of assets operated at a nominal voltage of 11 kV and below.

2.10 “**Effective Date**’’ means the first business day following the date of signature of these terms and conditions by the Customer.

2.11 “**Electrical installation**” means any machinery, in or on any Premises, used for the transmission of electricity from a point of control to a point of consumption anywhere on the Premises, including any article forming part of such an Electrical Installation irrespective of whether it is part of the electrical circuit.

2.12 “**Embedded Generator**” means the electricity generating device that is connected to the distribution network directly or via the Customer’s Electrical Installation beyond the Point of Control.

2.13 “**Maximum AC Charging Current**” means the maximum per phase AC charging current setting of a system equipped with an energy storage system when charging from the municipal grid.

2.14 “**Maximum Export Capacity**” means the maximum electrical power that can be transmitted by the Embedded Generator to the Distribution Network at the Point of Control.

2.15 “**Municipality**” means [*EThekwini Municipality*] established in terms of the Local Government: Municipal Structures Act 1998.

2.16 "**EThekwini Municipality Electricity By-Law**" means the Municipality by law governing the supply of electricity and connection of generation facilities, to the Distribution Network.

2.17 "**EThekwini Municipality's Technical Requirements**" means the Municipality's technical requirements in relation to the connection of Embedded Generators as detailed in the document entitled "Requirements

for Embedded Generation: Conditions and application process to become an embedded generator in the EThekwini Municipality."

2.18 "**NERSA**" means the National Energy Regulator of South Africa established in terms of the National Energy Regulator Act, (Act No. 4 of 2004), or its legal successor.

2.19 "**Parties**" shall mean the Municipality and the Customer and their successors in title.

2.20 "**Point of Control**" means the point at which the Customer's Electrical Installation on or in the Premises can be switched off from the electricity supplied from the Point of Supply.

2.21 "**Point of Supply**" means the actual supply point on the Distribution Network.

2.22 "**Premises**" means the premises of the Customer where the Embedded Generator is located.

2.23 "**Small-Scale Embedded Generator**" means an Embedded Generator no larger than 1MVA.

2.24 "**Total AC Capacity**" means the aggregated maximum nameplate AC power rating of the power conversion equipment (e.g., inverters, synchronous machines, or asynchronous machines).

3. Connection of Embedded Generator

3.1 Customers shall not connect the Embedded Generator to the distribution network without the prior written pre-approval consent from EThekwini Municipality.

3.2 The customer is entitled to connect to the distribution network temporarily for the purpose of carrying out Commissioning with the written permission from the municipality.

3.3 Final approval shall only be granted upon successful completion of the pre-commissioning tests and compliance with the Municipality's Technical Requirements.

4. Capacity of Embedded Generator

4.1 The Total AC Capacity, Maximum Export Capacity and Maximum AC Charging Current of the Embedded Generator are as specified and approved by the Municipality.

4.2 The customer shall not exceed these parameters without the applying to the Municipality for change in the system.

4.3 If these parameters are exceeded without the prior written consent of the Municipality, the Municipality may give notice to the Customer setting out

details and requesting the Customer to remedy the situation within Seven (7) business days of receipt of the notice, failing which the municipality reserves the right to disconnect the Embedded Generator from the Distribution Network and shall not re-connect until such time as the Customer satisfies the Municipality that the parameters will not be exceeded when the connection is renewed or arrangements have been made for an alteration or modification of these terms and conditions and payment of any transgressions will be levied upon.

4.4 If the customer proposes increasing the Total AC Capacity, Maximum Export Capacity or Maximum AC Charging Current of the Embedded Generator, the Customer must give prior written notice to the Municipality of such a request and any change shall be subject to the Municipality approving the change, which approval shall not be granted until such time as:

4.4.1 The Customer shall submit an additional Embedded Generator application for an upgrade of an Embedded Generator and the connection to the Distribution Network to the Municipality.

4.4.2 Any work required to the Parties electricity networks shall be completed, to the satisfaction of the EThekwini Municipality.

5. Electricity Feed-in Compensation

5.1 If the Customer feeds electricity back into the Distribution Network, the Customer's electricity account with the Municipality shall be credited for electricity generated by the Embedded Generator and exported to the Distribution Network in the amounts reflected in the Municipality's annual tariff relating to the import and export of electricity for embedded generation.

5.2 At the time that the Customer ceases to be on the relevant embedded generation tariff, any remaining credit balance will be reflected on the Customer's municipal electricity account. Municipal tariffs applicable to embedded generation will be updated annually, and any changes regarding quantum and structure are applicable to all existing and new embedded generators. EThekwini Municipality reserves the right to make amendments to the tariff as stated and does not warrant the financial viability of the Customer's embedded generation installation.

5.3 The Municipality shall not grant credit to the Customer for any energy not exported onto the Distribution Network due to unavailability of the Distribution Network for any reason.

5.4 A schedule of the tariffs relating to the import and export of electricity for embedded generation set by the Municipality shall be available on the website.

6. Metering

6.1 In order to accept reverse feed onto the Distribution Network from the Embedded Generator, the metering installation shall be of the bi-directional type, in accordance with NRS097-2 and NRS 057, and be installed by the Municipality at the account of the customer.

6.2 The metering installation will measure the imported and exported electricity at the point of common coupling.

6.3 Any upgrade to the meter, or future amendments to applicable metering requirements or the applicable standards, will be for the Customer's account.

6.4 In the event that either Party has grounds for believing that the meter is operating outside the relevant accuracy class in NRS 057, EThekwini Municipality may test the metering installation at any time, or the Customer shall be entitled to request such a test to be conducted upon payment of the required fees. The customer shall be entitled to nominate representatives to attend such test.

7. Billing

7.1 The Customer shall pay the Connection Charge (plus VAT), if applicable, to the Municipality for the connection of the Facility to the Distribution Network according to these terms and conditions. To the extent that a Connection Charge is payable according to the applicable municipal tariff, the Customer shall not be entitled to connect to the Distribution Network without paying the Connection Charge.

7.2 The Customer shall be liable for all charges as per the Municipality's schedule of electricity tariffs applicable to the Customer and the performance under these terms and conditions, as amended from time to time. All charges shall be due and payable by no later than 7 days after date of invoice.

7.3 Customers who have had a bi-directional meter installed and are on an approved embedded generation tariff for the import and export of electricity will be billed as follows:

7.3.1 The service charge and all energy and maximum demand charges, as applicable, will be billed on the Customer's monthly electricity account as per appropriate Net billing tariff.

7.3.2 Compensation for the export of electricity will be carried out against the Customer's normal monthly electricity account.

7.4 VAT will only be payable by the Municipality on exported energy where the Customer is registered with the South African Revenue Service (SARS) as a VAT vendor. Customers are required to provide proof of VAT registration as a VAT vendor to the Municipality.

8. No supply to third party

The Customer shall not supply any electricity generated on the Premises under these terms and conditions to any third party on any other Premises.

9. Compliance with quality of supply, safety, and other technical requirements

9.1 The Customer shall comply with the requirements of the Codes and the Municipality's Technical Requirements with respect to the connection of the Embedded Generator to the Distribution Network.

9.2 The Municipality reserves the right, acting reasonably, to alter the Municipality's Technical Requirements from time to time. The Municipality will provide notification to Customers of any such change required of existing approved Embedded Generators. The Customer will be obliged to ensure, at its cost, that the Customer's connection equipment complies with any such additional or amended requirements.

9.3 The Customer shall, at its own expense, provide, install, maintain, and operate a protection system on the Embedded Generator side of the Point of Control which:

9.3.1 shall be compatible with the Distribution Network protection system; and

9.3.2 shall safeguard the Customer’s connection equipment from any fault condition on the Distribution Network, including but not limited to (i) phase faults, (ii) earth faults, (iii) under or over voltage, (iv) under or over frequency and (vi) open-phase conditions.

9.4 The Customer shall ensure that the protection settings of the Embedded Generator are coordinated with the Municipality’s protection settings from time to time.

9.5 The Municipality may instruct the Customer to disconnect the whole or part of the Embedded Generator from the Distribution Network OR may switch off the Grid Supply. If the Customer is in breach of any provision of these terms and conditions, the Municipality shall be entitled to switch off the Grid Supply to the Customer until it can be proven that the embedded generator is physically and electrically disconnected from the electrical installation.

9.6 In accordance with the Electricity Regulation Act (No 4 of 2006), the Customer shall be responsible for maintaining the quality of supply from the Embedded Generator within the limits set out in the NRS 048 Quality of Supply and NRS 097 Grid Interconnection of Embedded Generation specification, with which the Customer acknowledges himself/herself/itself to be acquainted.

9.7 The customer shall ensure that the Anti-Islanding functionality of the Embedded Generator is always in good operational order to ensure the safety of the Municipality's personnel.

10. Interruption of supply

The Customer acknowledges and agrees that nothing in terms shall be construed to impose on the Municipality any guarantee, commitment or undertaking of or as to the availability, reliability, or any other condition of the Distribution Network at any time. The Municipality shall not be liable to the Customer for any Claims incurred by the Customer because of any constraint or congestion on, or any unavailability, interruption, disruption, curtailment, breakdown, inoperability, or failure of, any part of the Distribution Network.

11. Legislation of Compliance

11.1 The Customer must ensure that it complies with the requirements of the Law, including the relevant regulations published by NERSA from time to time, in respect of any Consent required in relation to the generation of electricity and the connection of the Embedded Generator to the Distribution Network.

11.2 The Customer is liable for any Claims which might arise from any change or clarification made by Minister of Energy or NERSA. The Customer hereby indemnifies, defends, and holds harmless the Municipality from and against all Claims made against or suffered by the Municipality under any Law arising out of the failure by the Customer to comply with any requirement to obtain a Consent in relation to the generation of electricity and the connection to the Distribution Network.

11.3 Should the Municipality become aware of a breach of such requirements by the Customer, it will constitute a breach of these terms and conditions and will be handled according to Clause 16.

12. Temporary curtailment of generation

The Municipality has the right to instruct the Customer, and the Customer shall respond to such an instruction, to reduce peak generation or disconnect the Embedded Generator entirely during abnormal system conditions or low load periods.

13. Transfer

The Parties agree that, if the Premises of the Customer in the future become located within the area of jurisdiction of another electricity supply authority, this Contract will be terminated, and the Customer may negotiate with the new electricity supply authority a new contract for embedded generation.

14. No assignment

Neither these terms nor any part, share or interest herein nor any rights or obligations hereunder may be ceded, delegated or assigned by the Customer without the prior signed written consent of EThekwini Municipality.

15. Decommissioning or disconnection

Any Embedded Generator which has been decommissioned must be physically disconnected from the Distribution Network by the removal of all wiring which connects the embedded generator with the Distribution Network. Customers are required to notify the Municipality and submit a Certificate of Compliance as evidence that the wiring has been disconnected for the Municipality to recognize such decommissioning.

16. Breach

16.1 If the terms and conditions is breached than the municipality will issue notification to rectify the breach within 7 working days or as it is reasonable.

17. Termination

17.1 The Customer shall be terminated with immediate effect should any of the following events take place:

17.1.1 The Customer gives five (5) days written notice in writing of the Customer having decommissioned and/or disconnected the Embedded Generator.

17.1.2 the Customer is transferred to a different electricity supply authority; and

17.1.3 the Parties mutually agree in writing to terminate this Contract.

18. Damages and indemnification

The Customer acknowledges these terms and conditions voluntarily. The Municipality shall not be liable for any losses, damages, Claims, liabilities, costs or expenses which are incurred by the Customer (whether directly or indirectly) arising from negligence relating to the design, construction, installation, Commissioning, operation and maintenance of the Embedded Generator. The Customer hereby indemnifies and holds the Municipality harmless against any Claims which may arise from the Contract.