B.2 Power Generating Module Document Type B

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| **Form B2-1 Power Generating Module Document for Type B Power Generating Modules**  **Compliance Statement**  This document shall be completed by the **Generator**.  Note: For phased installations reference to **PGM** in this form should be read as reference to **Generating Unit**sand theproject phase noted. | | | | | | |
| **Power Generating Module (PGM)**  **PGM Name:**  **Compliance Contact** (name/tel/email)**:** | | | | | **Distribution Network Operator (DNO)**:  **DNO Name**: ABC electricity distribution  **Compliance Contact** (name/tel/email): | |
| **Key to Submission Stage**  **A – Application:** Submission of the Standard Application Form.  **E – Energisation:** Documentation required prior to Energisation.  **IS – Initial Submission:** The programme of initial compliance document submission to be agreed between the **Generator** and the **DNO** as soon as possible after acceptance of a Connection Offer. The **Power Generating Module Document** shall be completed as agreed in accordance with paragraph 17.2.2 at least 28 days before the **Generator** wishes to synchronise its **Power Generating Module** for the first time.  **FONS – Final Operational Notification Submission:** The **Generator** shall submit post energisation verification test documents within 28 days of synchronising in accordance with paragraph 17.4.2 to obtain **Final Operational Notification** from the **DNO**. | | | | | | |
| **Key to evidence requested**  S - Indicates that **DNO** would expect to see the results of a simulation study  P - **Generating Unit** or **Power Generating Module** design data  MI - **Manufacturers’ Information**, generic data or test results as appropriate  D - Copies of correspondence or other documents confirming that a requirement has been met  T - Indicates that the **DNO** would expect to see results of, and/or witness, tests or monitoring which demonstrates compliance  TV - Indicates Type Test reports (if **Generator** pursues this compliance option)  Note that where multiple types of evidence are indicated in the “compliance” column in the **Power Generating Module Document**, this indicates that the evidence could be provided in a number of different formats, as determined by the **Generator** and/or **Manufacturer**. | | | | | **Key to Compliance**  Y = Yes (Compliant),  O = Outstanding (outstanding submission)  UR= Unresolved issue  N = No (Non-Compliant)  E = Exempt | |
| Note that the second part of this form is split into two Parts: Part 1 is applicable to **Synchronous Power Generating Module**s and Part 2 is applicable to **Power Park Module**s. | | | | | | |
| Issue | Date of Issue | Compliance Declaration Signatory Name | Compliance Declaration Signature | Issue Notes (completed by the **Generator**) | | **DNO** review date and comment |
| Issue # | DD/MM/YY |  | I declare that the details provided in this issue of this **Power Generating Module Document** comply with the requirements of G99 | Insert brief description of amendment | | **DNO** comments on evidence provided and any outstanding issues |
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| Final Issue Prior to **FON** |  |  |  |  | |  |
| **Details of Power Generating Module** | | | | | | |
| Connection Voltage | |  | | | | |
| **Registered Capacity** | |  | | | | |
| **Manufacturer** / Reference | |  | | | | |
| Technology Type | |  | | | | |

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| **Form B2-1 Part 1 - Compliance Requirements for Synchronous Power Generating Modules** | | | | **Response** | |
| **G99 Reference** | **Compliance Requirement of the Power Generating Module** | **Submission Stage** | **Evidence Requested (and / or)** | **Compliance**  **Y, O, UR, N, E** | **Generator’s Statement**  *(Provide document references with any additional comments)* |
| 17.2.1, 17.2.3, 17.4.1 | Confirmation that a completed Standard Application Form has been submitted to the **DNO** | A, IS, FONS | P, MI, D |  |  |
| 14.3 | Site Responsibility Schedule | E | D |  |  |
| 9.4.2 | **Power Quality – Voltage fluctuations and Flicker**:  The installation shall be designed in accordance with EREC P28 | IS, FONS | MI, D, T, S |  |  |
| 9.4.3 | **Power Quality – Harmonics**:  The installation shall be designed in accordance with EREC G5 | IS, FONS | MI, D, T, S |  |  |
| 12.5 | **Reactive Power capability** Confirm compliance with Section 12.5 by carrying out simulation study in accordance with B.4.2 and by submission of a report | IS | S, MI |  |  |
| 12.2 | Confirm that the plant and apparatus is able to continue to operate in the frequency ranges specified in 12.2.1 and to withstand the rate of change of frequency specified 12.2.2 | IS | MI, TV |  |  |
| 12.2.4 | **Limited Frequency Sensitive Mode – Overfrequency** Confirm the compliance with 12.2.4 by carrying out simulation study in accordance with B.4.5 and by submission of a report | IS | S, TV |  |  |
| 12.1.3 | Confirm the **Active Power** set point can be adjusted in accordance with instructions issued by the **DNO** | IS | MI, TV |  |  |
| 9.1.7 | Confirm that the **Power Generating Module** has been designed to comply with cyber security requirements, as detailed in 9.1.7 | IS | MI, D |  |  |
| 12.3 | **Fault Ride Through** Confirm the compliance with 12.3 by carrying out simulation study in accordance with B.4.4 and by submission of a report. Testing of **Fault Ride Through** is not required | IS | MI, TV, S |  |  |
| Section10 and Form B2-2 | **Interface Protection:**  Over and under voltage protection  Over and Under Frequency protection  Loss of mains protection  Other protection:  Details of any special protection, eg Pole Slipping or islanding  As an alternative to demonstrating protection compliance with Section 10 using **Manufacturers’ Information** or type test reports, site tests can be undertaken at the time of commissioning the **Power Generating Module** | IS, FONS | MI, TV, T |  |  |
| 12.2.4 | **Frequency Response Tests**  Confirm the **Synchronous Power Generating Module** meets the requirements of 12.2.4 by testing in accordance with B.5.2 | FONS | T, MI, TV |  |  |
| 12.2.3 | **Output Power with falling frequency** Confirm the **Synchronous Power Generating Module** meets the requirements of 12.2.3 by testing in accordance with B.5.3 | FONS | T, MI, TV |  |  |
| 10.3.3 | **Automatic reconnection** Confirm by testing that the reconnection sequence starts after a minimum delay of 20 s for restoration of voltage and frequency in accordance with paragraph 10.3.3 and 10.3.4 | FONS | T, MI, TV |  |  |
| B3 | Installation and Commissioning Form B3 completed with signed acceptance from the **DNO** representative | FONS | D |  |  |

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| **Form B2-1 Part 2 - Compliance Requirements for Power Park Module** | | | | **Response** | |
| **G99 Reference** | **Compliance Requirement of the Power Generating Module** | **Submission Stage** | **Evidence Requested (and / or)** | **Compliance**  **Y, O, UR, N, E** | **Generator’s Statement**  *(Provide document references with any additional comments)* |
| 17.2.1, 17.2.3, 17.4.1 | Confirmation that a completed Standard Application Form has been submitted to the **DNO** | A, IS, FONS | P, MI, D |  |  |
| 14.3 | Site Responsibility Schedule | E | D |  |  |
| 9.4.2 | **Power Quality – Voltage fluctuations and Flicker**:  The installation shall be designed in accordance with EREC P28. | IS, FONS | MI, D, T, S |  |  |
| 9.4.3 | **Power Quality – Harmonics**:  The installation shall be designed in accordance with EREC G5 | IS, FONS | MI, D, T, S |  |  |
| 12.5 | **Reactive Power capability** Confirm compliance with Section 12.5 by carrying out simulation study in accordance with B.4.2 and by submission of a report | IS | S, MI |  |  |
| 12.2.4 | **Limited Frequency Sensitive Mode – Overfrequency** Confirm the compliance with 12.2.4 by carrying out simulation study in accordance with B.4.5 and by submission of a report | IS | S, MI, TV |  |  |
| 12.2 | Confirm that the plant and apparatus is able to continue to operate in the frequency ranges specified in 12.2.1 and to withstand the rate of change of frequency specified in 12.2.2 | IS | MI, TV |  |  |
| 12.1.3 | Confirm the **Active Power** set point can be adjusted in accordance with instructions issued by the **DNO** | IS | MI, TV |  |  |
| 9.1.7 | Confirm that the **Power Generating Module** has been designed to comply with cyber security requirements, as detailed in 9.1.7. | IS | MI, D |  |  |
| 12.3 and 12.6 | **Fault Ride Through and Fast Fault Current Injection** Confirm the compliance with 12.3 and 12.6 by carrying out simulation study in accordance with B.4.4 and by submission of a report. Testing of **Fault Ride Through** is not required. | IS | MI, TV, S |  |  |
| Section 10 and Form B2-2 | **Interface Protection:**  Over and under voltage protection  Over and Under Frequency protection  Loss of mains protection  Other protection:  Details of any special protection, eg Pole Slipping or islanding  As an alternative to demonstrating protection compliance with Section 10 using **Manufacturers’ Information** or type test reports, site tests can be undertaken at the time of commissioning the **Power Generating Module** | IS, FONS | MI, TV, T |  |  |
| 12.2.4 | **Frequency Response Test**  Confirm the **Power Park Module** meets the requirements of 12.2.4 by testing in accordance with B.6.2 | FONS | T, MI, TV |  |  |
| 10.3.3 | **Automatic reconnection** Confirm by testing that the reconnection sequence starts after a minimum delay of 20 s for restoration of voltage and frequency in accordance with paragraph 10.3.3 and 10.3.4 | FONS | T, MI, TV |  |  |
| B3 | Installation and Commissioning Form B3 completed with signed acceptance from the **DNO** representative | FONS | D |  |  |