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| **Form C2-1 Power Generating Module Document for Type C and Type D 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**s.and 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.  For **Type C: 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 18.2.2 at least 28 days before the **Generator** synchronising the **Power Generating Module** for the first time.  **E – Energisation:** Documentation required prior to Energisation.  For **Type D: ION** – **Interim Operational Notification:** 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 19.3.2 at least 28 days before the **Generator** synchronising the **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 18.4.2 or 19.5.4 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** design data  MI - **Manufacturer** 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 **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) | | | | **Key to Compliance**  Y = Yes (Compliant),  O = Outstanding (outstanding submission)  UR= Unresolved issue  N = No (Non-Compliant) | |
| Note that second part of this form is split into two Parts, the Part 1 is applicable to **Synchronous Power Generating Module**s, the Part 2 is applicable to **Power Park Module**s | | | | | |
| Issue | Date of Issue | Compliance Declaration Signatory Name | Compliance Declaration Signature | | Issue Notes |
| 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 |
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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 C2-1 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,** | **Generator’s Statement**  *(Provide document references with any additional comments)* |
| 18.2.1, 18.2.3, 18.4.1 | Confirmation that a completed Standard Application Form has been submitted to the **DNO** | A, IS, ION, 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, ION | MI, D, TV |  |  |
| 9.4.3 | **Power Quality – Harmonics**:  The installation shall be designed in accordance with EREC G5 | IS, ION | MI, D, TV |  |  |
| 13.5 | **Reactive Power capability** Confirm compliance with Section 13.5 by carrying out simulation study in accordance with C.7.3 and by submission of a report | IS, ION | S, MI, TV |  |  |
| 13.4 | **Voltage Control and Reactive Power Stability** Confirm compliance with Section 13.4 by carrying out simulation study in accordance with C.7.4 and by submission of a report | IS, ION | S, MI, TV |  |  |
| 13.2 | Confirm that the plant and apparatus is able of continue to operate during frequency ranges and to withstand the rate of change of frequency specified in 13.2.1 and 13.2.2 | IS | MI, TV |  |  |
| 13.2.4 | **Limited Frequency Sensitive Mode – Over frequency and Frequency Sensitive Mode** Confirm the compliance with 13.2.4 by carrying out simulation study in accordance with C.7.6 and by submission of a report. | IS, ION | S, MI, TV |  |  |
| 13.2.5 | **Limited Frequency Sensitive Mode – Under frequency** Confirm the compliance with 13.2.5 by carrying out simulation study in accordance with C.7.7 and by submission of a report. | IS. ION | S, MI, TV |  |  |
| 13.1.3 | Confirm the **Active Power** set point can be adjusted in accordance with instructions issued by the **DNO** | IS, ION | MI, TV |  |  |
| 13.3 | **Fault Ride Through** Confirm the compliance with 13.3 by carrying out simulation study in accordance with C.7.5 and by submission of a report. | IS, ION | S, MI, TV |  |  |
| 18.2.3 (e) | Confirm a detailed schedule of tests and test procedures have been provided. | IS, ION | D |  |  |
| Section 10 and Form C2-2 | **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, ION, FONS | MI, TV, T |  |  |
| C.7.8 | **Model validation**  Demonstration of the frequency control or governor/load controller/plant model, **Excitation System** and voltage controller by carrying out simulation studies in accordance with C.7.8 | FONS | S, MI, TV |  |  |
| C.4 | **Excitation System Open Circuit Step Response Tests** Confirm the performance requirements of a continuously acting voltage control system compliant with C.4 by testing in accordance with C.8.2 | FONS | T, MI, TV |  |  |
| C.4 | **Open & Short Circuit Saturation Characteristics** Confirm the performance requirements of a continuously acting voltage control system compliant with C.4 by testing in accordance with C.8.3 | FONS | T, MI, TV |  |  |
| 13.4.3 | **Excitation System On-Load Tests** Confirm the operation of the **Excitation System** on load is compliant with paragraph 13.4.3 and Annex C.4 by testing in accordance with C.8.4 | FONS | T, MI, TV |  |  |
| 13.5 | **Reactive Capability Test** Confirm the **Reactive Power** capability of the **Synchronous Power Generating Module** to meet the requirements of Section 13.5 by testing in accordance with C.8.5 | FONS | T, MI, TV |  |  |
| 13.2 | **Frequency Response Tests**  Confirm the **Synchronous Power Generating Module** meets the requirements of 13.2 by testing in accordance with C.8.6 | FONS | T, MI, TV |  |  |
| 13.2.3 | **Output Power with falling frequency** Confirm the **Synchronous Power Generating Module** meets the requirements of 13.2.3 by testing in accordance with C.8.7 | 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 | FONS | T, MI, TV |  |  |
| C.3 | Installation and Commissioning Form C3 completed with signed acceptance from the **DNO** representative | ION, FONS | D |  |  |

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| **Form C2-1 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,** | **Generator’s Statement**  *(Provide document references with any additional comments)* |
| 18.2.1, 18.2.3, 18.4.1 | 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, ION | MI, D, TV |  |  |
| 9.4.3 | **Power Quality – Harmonics**:  The installation shall be designed in accordance with EREC G5 | IS, ION | MI, D, TV |  |  |
| 13.5 | **Reactive Power capability** Confirm compliance with Section 13.5 by carrying out simulation study in accordance with C.7.3 and by submission of a report | IS, ION | S, MI, TV |  |  |
| 13.4 | **Voltage Control and Reactive Power Stability** Confirm compliance with Section 13.4 by carrying out simulation study in accordance with C.7.4 and by submission of a report | IS, ION | S, MI, TV |  |  |
| 13.3 | **Fault Ride Through capability** Confirm compliance with Section13.3 by carrying out time series simulation study in accordance with C.7.5 and by submission of a report. | IS, ION | MI, TV, S |  |  |
| 13.2 | Confirm that the plant and apparatus is able of continue to operate during frequency ranges and to withstand the rate of change of frequency specified in 13.2.1 and 13.2.2 | IS | MI, TV |  |  |
| 13.2.4 | **Limited Frequency Sensitive Mode – Over frequency and Frequency Sensitive Mode** Confirm the compliance with 13.2.4 by carrying out simulation study in accordance with C.7.6 and by submission of a report | IS, ION | S, MI, TV |  |  |
| 13.2.5 | **Limited Frequency Sensitive Mode – Under frequency** Confirm the compliance with 13.2.5 by carrying out simulation study in accordance with C.7.7 and by submission of a report | IS, ION | S, MI, TV |  |  |
| 13.1.3 | Confirm the **Active Power** set point can be adjusted in accordance with instructions issued by the **DNO** | IS, ION | MI, TV |  |  |
| 13.3 and 13.6 | **Fault Ride Through and Fast Fault Current Injection** Confirm the compliance with 13.3 and 13.6 by carrying out simulation study in accordance with C.7.5 and by submission of a report | IS, ION | S, MI, TV |  |  |
| 12.2.1 | Confirm that the plant and apparatus is able of continue to operate during frequency ranges specified in 12.2.1 | IS, ION | MI, TV |  |  |
| 18.2.3 (e) | Confirm a detailed schedule of tests and test procedures have been provided | IS, ION | D |  |  |
| Section 10 and Form C2-2 | **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, ION, FONS | MI, TV, T |  |  |
| C.7.8 | **Model validation**  Demonstration of the frequency control or governor/load controller/plant model, **Excitation System** and voltage controller by carrying out simulation studies in accordance with C.7.8 | FONS | S, MI, TV |  |  |
| C.5 | **Voltage Control Test (pre 20%)** Confirm the performance requirements of a continuously acting voltage control system compliant with C.5 by testing in accordance with C.9.2 and C.9.4 | ION, FONS | T, MI, TV |  |  |
| C.5 | **Voltage Control Test** Confirm the performance requirements of a continuously acting voltage control system compliant with C.5 by testing in accordance with C.9.4 | FONS | T, MI, TV |  |  |
| 13.5 | **Reactive Capability Test** Confirm the **Reactive Power** capability of the **Power Park Module** meet the requirements of Section 13.5 by testing in accordance with C.9.3 | FONS | T, MI, TV |  |  |
| C.9.5 | **Frequency Response Test**  Confirm the **Generator** meets the requirements of 13.2 by testing in accordance with C.9.5 | 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 | FONS | T, MI, TV |  |  |
| C.3 | Installation and Commissioning Form C3 completed with signed acceptance from the **DNO** representative | ION, FONS | D |  |  |