

Battery storage commissioning checklist

A commissioning checklist for battery energy storage: what's installed, the inspection, BS 7671 test references, system function tests and grid tests, signed off per system.

Project	Site	Completed by	Date
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1. System details

1.1 Installation address **Required**

TEXT

1.2 Commissioning date **Required**

DATE

1.3 Battery make, model and serial numbers **Required**

NOTES

1.4 Inverter / PCE make, model and serial numbers **Required**

NOTES

1.5 System class **Required**

Classes as defined in MCS MIS 3012.

☐ Class 1: all-in-one packaged system
 ☐ Class 2: separate PCE and battery, one manufacturer
 ☐ Class 3: PCE and battery from different manufacturers
 ☐ Class 4: bespoke, installer responsible for integration

CHOOSE ONE

1.6 Maximum power output **Required** (kW)

READING

1.7 Usable capacity **Required** (kWh)

READING

1.8 Back-up or island mode **Required**

☐ Yes ☐ No

YES / NO

1.9 Test instruments and serial numbers **Required**

TEXT

2. Inspection

2.1 Equipment and protection **Required**

CHECKLIST GRID

Check	Pass	Fail	N/A
Installed to the design and manufacturer's instructions	☐	☐	☐
Equipment undamaged	☐	☐	☐
Conductors connected, identified and routed correctly	☐	☐	☐
Switchgear rated for the DC and AC voltage and current	☐	☐	☐
Earthing and bonding in place	☐	☐	☐
RCD protection where required	☐	☐	☐
Dual supply and other warning labels fixed and durable	☐	☐	☐

2.2 Location **Required**

CHECKLIST GRID

Check	Pass	Fail	N/A
Ventilation suits the battery and PCE	☐	☐	☐
Clearances meet the manufacturer's specification	☐	☐	☐
IP rating suits the location	☐	☐	☐
Protected from impact damage	☐	☐	☐
Above foreseeable flood level	☐	☐	☐
Fire detection fitted where the room is rarely visited	☐	☐	☐
Access kept clear for maintenance	☐	☐	☐

3. Back-up and island mode

Only for systems that supply the site when the grid is off.

3.1 Island mode arrangement

CHECKLIST GRID

↳ **Shown when Back-up or island mode is Yes**

Check	Pass	Fail	N/A
Grid conductors isolated in island mode	☐	☐	☐
Consumer's earth electrode provided	☐	☐	☐
RCDs give the disconnection times needed in island mode	☐	☐	☐
Surge protection fitted	☐	☐	☐
Load shedding or staggered start on changeover	☐	☐	☐

3.2 Earth electrode resistance (Ω)
↳ Shown when Back-up or island mode is Yes

READING

4. Electrical tests

4.1 BS 7671 certificate and schedule reference Required

TEXT

4.2 Fault current and loop impedance verified in every operating mode Required

YES / NO

Charging-mode tests with all inverters and bi-directional converters disconnected.

☐ Yes ☐ No

4.3 Highest prospective fault current Required (kA)

READING

5. System and grid tests

5.1 Function tests Required

CHECKLIST GRID

Check	Pass	Fail	N/A
Controls and data logging working	☐	☐	☐
Monitoring connected and reporting	☐	☐	☐
Displays and alarms	☐	☐	☐
Charges and discharges correctly	☐	☐	☐
Thermal management	☐	☐	☐
Ventilation system and controls	☐	☐	☐
Fire detection or suppression interface	☐	☐	☐
Loss of mains (G98 / G99)	☐	☐	☐
Export limitation (G100)	☐	☐	☐
Back-up changeover and power quality	☐	☐	☐

5.2 Manufacturer's commissioning report

Attach, or give its reference.

FILE UPLOAD

5.3 DNO witnessed the grid tests

YES / NO

☐ Yes ☐ No

6. Result and sign-off

6.1 Overall result **Required**

☐ Pass ☐ Fail

PASS / FAIL

6.2 Defects and actions **Required**

↳ Shown when Overall result is Fail

NOTES

6.3 Photo of the installed system and labels **Required**

PHOTO

6.4 Commissioned by (signature) **Required**

SIGNATURE