BESS COMMISSIONING CHECKLIST

Battery CHECKLIST	
BESS manufacturer	
BESS model	
Battery chemistry	FLA AGM GEL Sealed Li-ion VRLA U/N……
Ratings	System Voltage (V) …… Battery Voltage (V) …… Capacity (Ah C100 or equiv.) …… No. of Strings …… No. of batteries in a series string (if required) …….. State of charge at time of commissioning ……
System manual as per AS/NZS5139 provided to customer	☐
Battery risk assessment provided to customer	☐
Copy of the battery SDS left in the switchboard	☐
Battery Inverter/Charger	Manufacturer…… Model ……
Battery inverter is installed as per manufacturer's specifications	☐
BESS	
Installed to manufacturer's instructions	☐
All electrical wiring has been installed in accordance with AS/NZS3000 and equipment is certified for use in Australia	☐
All bolts and terminations are correctly torqued	☐

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All electrical cables, isolators and fuses are correctly rated and sized for operating and fault conditions	☐
All electrical wiring is routed to be protected from any physical damage, mechanical stress and exposure that could cause corrosion	☐
Battery enclosure/s are; • correctly installed and earthed. • mechanically sound • suitable for the local environmental conditions • not in a habitable room	☐
The clearance and ventilation requirements of AS/NZS5139 and AS/NZS4509.1 have been met where required	☐
Earth connections are UV stable and/or mechanically protected. *e.g., gal sprayed*	☐
There are not readily accessible 'live' parts on any installed equipment	☐
All battery terminals and interconnects are protected against accidental short circuit, where applicable	☐
Earth fault alarm type *e.g., visual, audible, electronic, etc.* installed and working	☐
Unearthed conductors in battery banks are protected by overcurrent protection devices	☐
BESS have a means of isolation. Checked and tested	☐
DC Battery Cable size. (Calculated)	

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Battery system Voltage drop from cabling at maximum rated discharge current.	…….. (%)
Manufacturers' Float Voltage (if required)	…….. (V/Cell)
Voltage, current and power throughput have been verified and are within the design specification for intended use and load profile (lead-acid)	☐
Designed maximum Depth of Discharge. (%)	
All required signage is displayed; Eg. Shutdown procedure ES Battery system – Voltage/Prospective fault current Warning Arc flash hazard DANGER toxic fumes, fire will cause toxic fumes Electrolyte burns DANGER risk of battery explosion NO smoking	☐
System operates as a whole	☐
BESS operates in both charge and discharge modes	☐
DC connections tested while the system is operating at a min of 50% charge or discharge current to identify high resistance connections (eg. Voltage measurement, temperature measurement or infrared camera)	☐
Operational parameters for control of the battery system are verified	☐
System shutdown procedure tested to ensure safe shutdown	☐
Other (eg. specific gravity etc.)	

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Battery	Commissioning Information (Nameplate)		Commissioning Information (Measured)				
	Voltage (V)	Capacity (Ah)	Battery overall voltage (V)	Continuity of strings and correct polarity (Y or N)	Earth continuity (Ω)	Insulation resistance (M Ω) +ve to E / -ve to E	Impedance (where required eg. Lead-acid batteries) (mΩ)
String 1						/	
String 2						/	
String 3						/	
String 4						/	
String 5						/	
String 6						/	
Total battery							

Testing has been carried out to AS/NZS3000	☐

High resistance connections test (load test)

Battery	Voltage point 1	Voltage point 2	Voltage point 3	Voltage point 4
String 1				
String 2				

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String 3				
String 4				
String 5				
String 6				

Generating Set	Manufacturer …… Model …….
Type	☐ Petrol/Ethanol ☐ Diesel/biodiesel ☐ LPG/other
Ratings	Capacity (kVA) …… Expected runtime …… Best month (hrs) …… Worst month (hrs) ……
Changeover switch operates in all required poles and breaks before makes?	☐
Generator log book supplied	☐

DECLARATION OF RESPONSIBLE PERSONS	
I hereby sign and verify that this system has been designed, installed and commissioned to all relevant Australian standards, state and territory regulations, and CEC guidelines.	
CEC-accredited designer's name	
CEC accreditation no.	
Date:	Sign:
CEC-accredited installer's name	

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CEC accreditation no.	
Date:	Sign:
Licensed electrician's name	
Licensed electrician no.	
Date:	Sign:

SYSTEM OWNER'S DECLARATION	
I confirm that I have received an operating manual and have been instructed on the safe operation of the system.	☐
I confirm that the CEC-accredited installer named above: a. Is the installer that physically undertook the installation, or; b. Supervised the installation by physically attending the site at three stages of the installation, at job set-up (beginning), mid-installation check-up (during), and testing and commissioning (end).	a. ☐ or b. ☐
System owner's name:	
Date:	Sign: