Ref: CX### WR#

DD/MM/YYYY

Dear Sir/Madam

Subject: Configuration of Installation e.g.: 100kVA inverter system with 40kW Partial Export and 500 kVA rotating machine with NIL, Partial (kW) or Full Export Stand-by or Continuous Parallel Generator – **Project Name, Location** 

Please find attached our submission for the above-mentioned project.

This letter is to certify that as a Registered Professional Engineer of Queensland and by virtue of my training and experience, the submission documentation issued together with this letter complies with the requirements of the latest revisions of the following:

- Site Specific Enquiry Response
- STNW1174 Version [#] Standard for LV Embedded Generation Connections, including the relevant standards applicable to this installation therein
- Queensland Electricity Connection Manual Version [#]

EG #	Size	Туре	Operation	Units
1	110kVA	Solar PV (New)	Export	2 x 55kVA inverters
2	500kVA	Rotating Machine (New)	Non-export (Stand-by)	1 x 500kVA diesel machine
TOTAL	Capacity	560kVA	Export	110kW

Details of generating system(s): [example only]

In addition to the above, the following documents have been submitted as part of the application:

- Single line diagram of the generating system to the connection point, including protection relay arrangement (signed by RPEQ). Settings do not need to be indicated on the diagram,
  - Inverter power quality settings can be simplified with confirmation of use of Australia A regional settings (i.e., detailed settings parameters not required).
- Protection line diagram including inverter and grid protection relay and generator details; make, model, settings, and instrument transformer details (signed by RPEQ),
- DNSP Approved Interface Protection Relay- Name, Make and Model (list available on DNSP Website), where relevant,
- Evidence of adherence to the Emergency Backstop Mechanism (refer to QECM 8.10.2 and the QECM drawing supplement for guidance on connection arrangements), including Generator Signaling Device (GSD) details: Make, Model, together with the connection diagram of the GSD,

- Synchronisation Operational sequences (On loss of supply, on mains restoration, and testing sequences),
- Generator Technical Data sheet including machine impedance characteristics,
- Voltage Rise Calculations -the export EG System has been designed so that there is a maximum 2% voltage rise from the EG System to the Connection Point,
- Battery storage system details (if applicable), installed to AS/NZS 5139,
- Details of any interlocking schemes (if applicable- <u>Interlocking Requirements Guideline</u> can be used as guidance),
- Inverter Power Sharing Device details, where relevant,
- EVSE (electric vehicle service equipment) details, where V2G or V2B.

## Summary Table [amend as relevant]

Documents	Submitted	Provide details
Single Line Diagram (SLD)	Yes 🗌 No 🗌	
Power Quality Settings	Yes 🗌 No 🗌	
Protection Report	Yes 🗌 No 🗌	
IPR Details	Yes 🗌 No 🗌	
Emergency Backstop Mechanism Evidence (GSD Details)	Yes 🗌 No 🗌	
Synchronous Operational Sequence	Yes 🗌 No 🗌	
Generator Technical Data Sheet	Yes 🗌 No 🗌	
Interlocking schemes	Yes 🗌 No 🗌	
Voltage rise calculations	Yes 🗌 No 🗌	
Battery Storage details	Yes 🗌 No 🗌	
Inverter Power Sharing Device (IPSD) details	Yes 🗌 No 🗌	
EVSE (Electrical Vehicle Supply Equipment) details, where V2B or V2G	Yes 🗌 No 🗌	

Should you have any queries, please contact the undersigned.

Signed

RPEQ Engineer Name
Registration Number
Professional Title

Company Name
Company Address
Contact Details