Embedded Generation via Inverter Energy System >30kVA and ≤1,500 kVA



Certification	
Energex WR#:	
Date: / /	
Embedded Generation via Inverter Energy System > 30 kVA and ≤ 1,500 kVA Project Name: Location:	A –
I certify that as a Registered Professional Engineer of Queensland and by virtue of that the submission documentation complies with the requirements of the latest re	
 Energex's Technical Study Report provided for the above stated project STNW1175 - Standard for HV Embedded Generating Connections AS/NZS 3000 - Electrical Installations AS 2067 - Substations and high voltage installations exceeding 1kV A.0 AS 3100 - Approval and test specification - General requirements for exact AS/NZS 4777 series - Grid connection of energy systems via inverters AS/NZS 5139 - Electrical Installations - Safety of battery systems for usequipment Queensland Electricity Connection Manual 	C. electrical equipment
In addition to the above, the following attachments have been submitted as part of	of the application:
 Attachment 1 – PV inverter & Battery Specifications & Checklist Attachment 2 – Compliance Checklist Attachment 3 – Commissioning Test Results Attachment 4 – As Constructed Drawings 	
Signature	
	BDEO Engineer Name
	RPEQ Engineer Name
	Registration Number
	Professional Title
	Company Name
	Company Address

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Uncontrolled When Printed 1 of 8

Contact Details

Embedded Generation via Inverter Energy System >30kVA and ≤1,500 kVA

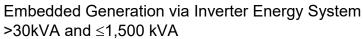


All questions in each applicable section must be answered.

Attachment 1 - PV Inverter & Battery Specifications & Checklist

Installation details	Data
Customer Name	
Customer contact details	
Energex contact	
Installation approved capacity (kVA)	
Installation approved export (kW)	
Installed capacity (kVA) (Must not exceed approved limit)	
Installed export power limit (kW) (Must not exceed approved export)	
As installed – IES Rating Data	
Parameters	Data
Cell/PV type	
Peak Power Pmax	
Rated voltage Vmp	
Rated Current Ipm	
Short circuit current Imc	
Open circuit voltage	
Maximum system voltage	
Module Efficiency	
Manufacturer's specification data sheet/user manua attached	al Yes □ No □

Owner: Chief Engineer Release: 2, 20 Nov 2023 | Doc ID: 14894749 SME: Principal Engineer Connections Policy and Process Uncontrolled When Printed 2 of 8





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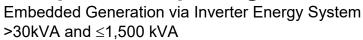
As installed - Inverter Technical Data

Parameters	Data
Туре	
Model	
Part Number / Manufacturer	
Max. Input DC Power	
Max. Input DC Voltage	
Max. Input Current	
Clean Energy Council Approved Inverter used	Yes □

As installed - Battery Technical Data

Parameters	Data
Capacity	
Planned Operating Mode	
Max Rate of Charge	

Owner: Chief Engineer Release: 2, 20 Nov 2023 | Doc ID: 14894749 SME: Principal Engineer Connections Policy and Process Uncontrolled When Printed 3 of 8





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Output - Data			
Description	Data		
Nominal Site Output to Grid			
Max. output current			
Nominal AC voltage range			
Max. efficiency			
Power quality mode			
AC Crid fragrupa and adjusting range	Yes □	No 🗌	
AC Grid frequency adjusting range Single Line Diagram (SLD) attached	Yes	No 🗌	
Existing Onsite Embedded Gener	ating Systems		
Existing Installation details*	Data		
Types			
Capacity			

*Prior to this application

Release: 2, 20 Nov 2023 | Doc ID: 14894749 Owner: Chief Engineer Uncontrolled When Printed 4 of 8 SME: Principal Engineer Connections Policy and Process

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Attachment 2 - Compliance Checklist

Description	n	Complies	If No, supply	details		
Voltage Flu	ctuation or Flicker	Yes No No				
Export Req	uirements	Yes No No				
Special Inst	tructions	Yes No No				
Fluctuation	and Harmonic Allocations	Yes No No				
Power Fact	or Limits	Yes No No				
Compliand	ce with Standard for HV E	EG Connections				
Clause	Description			Complie	S	
5.1 and 5.1.1	Compliance to Standards	;		Yes 🗌	No 🗌	N/A 🗌
4.4.3	Power limiting (for partial-export and non-export systems only) - Provide setting below Yes No N/A					
5.1.1	Energy Storage Systems (if applicable) compliance to (AS/NZS 5139)		Yes 🗌	No 🗌	N/A 🗌	
5.2.2	Inverter protection settings		Yes 🗌	No 🗌	N/A 🗌	
4.7.1	1.7.1 Protection device compliance Yes		No 🗌	N/A 🗌		
5.2.12	Grid Protection Relay Yes No N/A		N/A 🗌			
4.15	Interlocking (if applicable) Yes No N/A					
5.2.13	3 Wireless transfer (where used)– provide Trip Time results - (coms failure &GPR pickup) below Yes □ No □ N/A □		N/A 🗌			
4.10.1 - 4.10.6	Power Quality Yes No N/A		N/A 🗌			
7	Commissioning		Yes 🗌	No 🗌		
8	Operation and maintenance Yes No No					
Comments (please supply additional information for any non-compliances)						

Owner: Chief Engineer Release: 2, 20 Nov 2023 | Doc ID: 14894749 SME: Principal Engineer Connections Policy and Process Uncontrolled When Printed 5 of 8

Embedded Generation via Inverter Energy System >30kVA and ≤1,500 kVA



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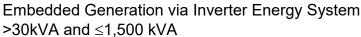
Attachment 3 – Compliance Report – Commissioning

Commissioning shall include the following information and test certificates are recommended for further evidence:

Compliance with Standard for HV EG Connections

Complies	(attach docs if required)		
Yes No No			
Complies	Data, provide details (attach docs if required)		
Yes No No			
Yes 🗌 No 🗌			
Yes No No			
Complies	Data, provide details (attach docs if required)		
Yes No No			
gs as required)			
	Complies Yes		

Owner: Chief Engineer Release: 2, 20 Nov 2023 | Doc ID: 14894749 SME: Principal Engineer Connections Policy and Process Uncontrolled When Printed 6 of 8





All questions in each applicable section must be answered. Protection cont. **GPR Details** Data Make Model Serial Number **Power Quality** Power Quality testing is required Yes 🗌 No 🗌 If No, provide details **System Details Complies** (attach docs if required) Flicker Yes 🗌 No \square Harmonics emissions levels (e.g. 5,7) Yes 🗌 No 🗌 Voltage Unbalance (%) Yes 🗌 No 🗌 Power Factor Yes 🗌 No 🗌 Copy of Test Certificates attached Yes 🗌 No 🗌 Interlocking If Yes, provide details **System Details** Complies (attach docs if required) Manual (Key-based) or Yes No No Yes No No Automated Yes No No Prior approved automated design attached

Owner: Chief Engineer Release: 2, 20 Nov 2023 | Doc ID: 14894749 SME: Principal Engineer Connections Policy and Process Uncontrolled When Printed 7 of 8

Embedded Generation via Inverter Energy System >30kVA and ≤1,500 kVA



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Attachment 4 – As Commissioned Drawings

Single Line Diagram and AC Schematics should include:

RPEQ Signature	
2. NMI, Site name and address	
3. GPR settings	
Inverter protection details	
Single Line Diagram (SLD) attached	Yes No No
AC schematics attached	Yes No No

Owner: Chief Engineer Release: 2, 20 Nov 2023 | Doc ID: 14894749 Uncontrolled When Printed 8 of 8 SME: Principal Engineer Connections Policy and Process