Compliance Reporting Form

Embedded Generation via Rotating Machine LV connection
≤1,500 kVA

Certification

Ergon Energy WR#:

Date: / /

Embedded Generation via RM > 30 kVA and ≤ 1,500 kVA –
Project Name:
Location:
NMI:

I certify that as a Registered Professional Engineer of Queensland and by virtue of my training and experience, that the submission documentation complies with the requirements of the latest revisions of the following:

- Ergon Energy's Technical Study Report provided for the above stated project.
- STNW1174 - Standard for LV Embedded Generating Connections [version]
- AS/NZS 3000 – Electrical Installations
- AS 60034.1 Rotating electrical machines, Part 1: Rating and performance
- Queensland Electricity Connection Manual [version]

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

- Attachment 1 – Engine/Turbine/Alternator Specifications & Checklist
- Attachment 2 – Compliance Checklist
- Attachment 3– Commissioning Test Results
- Attachment 4 – As Commissioned Drawings

Signature:

	RPEQ Engineer Name
	Registration Number
	Professional Title
	Company Name
	Company Address
	Contact Details

Compliance Reporting Form

Embedded Generation via Rotating Machine LV connection
≤1,500 kVA

All questions in each applicable section must be answered.

Attachment 1 – Rotating Machine Specifications & Checklist

Installation details	**Data**
Customer Name	
Customer contact details	
Ergon Energy 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)	
Subject description (plant information) e.g. stand-by generator at shopping village	

As installed – Engine/Turbine Technical Data

Parameters	**Data**
Engine/Turbine type	
Make	
Model	
Rated Power (kWe/kWm)	
Rated Voltage (V)	
Rated Current (A)	

Compliance Reporting Form

Embedded Generation via Rotating Machine LV connection
≤1,500 kVA

All questions in each applicable section must be answered.

As Installed – Alternator Technical Data

Parameters	Data
Make	
Model	
Rated Power (kVA)	
Rated Current (A)	
Rated Voltage (V)	
Peak Short Circuit Current (kA)	

Manufacturer's specification data sheet/user manual attached Yes ☐ No ☐

As Installed – Generating System

System Details	Complies	Data, provide details (attach docs if required)
Complies with AS 60034.1	Yes ☐ No ☐	

Comments
(please supply additional information for any non-compliances and settings as required)

Single Line Diagram (SLD) attached Yes ☐ No ☐

Existing Onsite Embedded Generating Systems

Existing Installation details (prior to this application)	Data
Types	

Compliance Reporting Form

Embedded Generation via Rotating Machine LV connection
≤1,500 kVA

All questions in each applicable section must be answered.

Capacity and export	
Changes made to legacy systems?	Yes ☐ No ☐
Details of change	

All questions in each applicable section must beanswered.

Attachment 2 – Compliance Checklist

Description	Comments
Voltage Fluctuation and Flicker	
Export Requirements	
Special Instructions	
Fluctuation and Harmonic Allocations	
Power Factor Limits	

Clause	Description	Complies
4.3	Stand-by hours limit compliance (if applicable)	Yes ☐ No ☐ N/A ☐
4.3.1.3	Power limiting (for partial-export and non-export systems only)	Yes ☐ No ☐ N/A ☐
4.7.2,	Protection device compliance, IPR functionality and settings	Yes ☐ No ☐ N/A ☐
4.7.6.2	Loss of mains, NVD and backup anti-islanding protection	Yes ☐ No ☐ N/A ☐
4.7.3	Interlocking (if applicable)	Yes ☐ No ☐ N/A ☐
4.7.5	Re-energisation and synchronisation	Yes ☐ No ☐ N/A ☐
4.7.6.1	Standards compliance	Yes ☐ No ☐ N/A ☐
4.7.6.2	Exemptions (please list relevant exemptions authorised for this installation)	Yes ☐ No ☐ N/A ☐
4.10.1.1 - 4.10.1.5	Power Quality	Yes ☐ No ☐ N/A ☐
4.10.3	Power Control Mode settings	Yes ☐ No ☐ N/A ☐
6	Commissioning	Yes ☐ No ☐
7	Operation and maintenance	Yes ☐ No ☐

Compliance Reporting Form

Embedded Generation via Rotating Machine LV connection
≤1,500 kVA

All questions in each applicable section must be answered.

Comments
(please supply additional information for any non-compliances and settings as required)

All questions in each applicable section must be answered.

Attachment 3 – Compliance Report – Commissioning

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

Compliance with Standard for LV EG Connections

System Details	Complies	Data, provide details (attach docs if required)
Installed system meets all criteria outlined in the Ergon Energy's Technical Study Report issued for project	Yes ☐ No ☐	

Rotating Machine

System Details	Complies	Data, provide details (attach docs if required)
AC Output Voltage from inverter on commissioning	Yes ☐ No ☐	
Input and Output power from rotating machine on commissioning	Yes ☐ No ☐	
Re-energisation and synchronisation as per standard	Yes ☐ No ☐	
Rotating machine performed as per approved Operating type (Clause 4.3)	Yes ☐ No ☐	Operating Type:

Compliance Reporting Form

Embedded Generation via Rotating Machine LV connection
≤1,500 kVA

All questions in each applicable section must be answered.

Protection

System Details	Complies	Data, provide details (attach docs if required)
Tripping and control scheme logic	Yes ☐ No ☐	
Instrument transformer ratios	Yes ☐ No ☐	
Relay settings as per STNW1174 Table 10	Yes ☐ No ☐	
Relay pickup tests	Yes ☐ No ☐	
IPR – ROCOF (setting)	Yes ☐ No ☐	
IPR – directional power (setting)	Yes ☐ No ☐	N/A ☐
IPR – negative sequence voltage (setting)	Yes ☐ No ☐	N/A ☐
IPR – negative sequence current (setting)	Yes ☐ No ☐	N/A ☐

IPR Details	Data
Make	
Model	
Serial Number	

Comments
(please supply additional information for any non-compliances and settings as required)

Commissioning results attached Yes ☐ No ☐

Power Quality

Power quality test results required to be provided to DNSP Yes ☐ No ☐

Where more than one Connection Point is present for a Retail Customer, testing has been completed for each Connection Point Yes ☐ No ☐ N/A ☐

Compliance Reporting Form

Embedded Generation via Rotating Machine LV connection
≤1,500 kVA

All questions in each applicable section must be answered.

Power quality raw data provided (.xlsx or .csv format) Yes ☐ No ☐

System Details	Complies	Data, provide details (attach docs if required)
Flicker	Yes ☐ No ☐	
Harmonics emissions levels (Testing not required if no power electronic converter present)	Yes ☐ No ☐	
Voltage Unbalance (%)	Yes ☐ No ☐	
Power Factor	Yes ☐ No ☐	

Copy of Test Certificates attached Yes ☐ No ☐

Interlocking N/A ☐

System Details	Complies	If Yes, provide details (attach docs if required)
Manual (Key based) or	Yes ☐ No ☐	
Automated	Yes ☐ No ☐	
Prior approved automated design attached	Yes ☐ No ☐ N/A ☐	

All questions in each applicable section must be answered.

Attachment 4 – As Commissioned Drawings

Single Line Diagram and AC Schematics should include

1. RPEQ Signature		
2. NMI, Site name and address		
3. IPR settings		
Single Line Diagram (SLD) attached	Yes ☐	No ☐
AC schematics attached	Yes ☐	No ☐