

# Connection to the HIE Electrical Distribution Network Policy & Application Form

February 2025 Revision C

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# 1. Purpose of Document

This document identifies the procedure along with any applicable requirements and obligations for retail customers that apply for the following associated with the Hamilton Island Enterprises (HIE) electrical distribution network:

- New connections and connection alterations
- Request for temporary electrical disconnection and reconnections
- Electrical connection requirements
- Electrical metering installations
- Connection of inverter energy systems
- Electrical installation auditing

It is the responsibility of the retail customer and their electrical contractor/s to ensure compliance with this document's specifications along with the relevant regulations/standards when installing and/or altering their electrical installation i.e. on the customer side of the connection point.

This document may be regularly updated. For the latest version see the website identified within Appendix A. HIE disclaims all liability for errors or omissions of any kind whatsoever (whether negligent or otherwise) or for any damages or loss arising from the use or reliance upon the information contained within this document.

#### 2. Scope

This document specifies the requirements associated with connections on Hamilton Island and Dent Island (the HIE electrical distribution network). Furthermore for new connections or connection alterations reference shall be made the Hamilton Island Building Design and Siting Guidelines (B&SG) for other applicable criteria.

# 3. References

AS/NZS 3000: 2007 Electrical Installations (Wiring Rules)

HIE Policy – Hamilton Island Building & Siting Guidelines – Latest Revision

HIE Policy – Connection of Inverter Energy Systems to the HIE Network

Queensland Electrical Connection & Metering Manual – Services & Installation Rules

# 4. Definitions

Augmentation	Work to enlarge the electrical distribution network increase its capacity
, taginentation	to distribute electricity
Consumers Mains	The conductors between the connection point and the retail customers
	main switchboard
Connection	A physical link between an electrical distribution network and a retail
	customers premises to allow the flow of electricity.
Connection alteration	An alteration to an existing connection including an additional,
	upgrade, extension, expansion, augmentation or any other kind of
	alteration.
Connection point	The agreed point of supply established between the HIE electrical
	distribution network and its retail customers.
Current transformer meter	A metering arrangement where electricity flow is measured by a meter
	using current transformers.
Direct connected meter	A meter where the electricity flow is directly measured by the meter
	i.e. the current under measurement passes through the meter itself.
Disconnection	The opening of a connection in order to prevent the flow of electricity
	to the premises.
Distribution network	An entity that owns, controls or operates an electrical distribution
service provider	network and the associated connection assets. HIE is a distribution
	network service provider.
Electrical distribution	The portion of an electrical system that is operated by a distribution
network	network service provider.
Electrical Services	The HIE division which is responsible for the operation and
	maintenance of the Hamilton Island and Dent Island electrical
	distribution networks.
Inverter	A device that uses semiconductor devices to transfer power between a
	d.c. source or load and an a.c. source or load.
Inverter Energy System (IES)	A system comprising one or more inverters together with one or more
	energy sources (which may include batteries for energy storage) and
La de Cara	controls, and which satisfies the requirements of AS/NZS 4777.2.
Isolation	Disconnected from all possible sources of electrical supply by means
Licensed electrical	which will prevent unintentional energisation.
contractor	A person licensed under the Electrical Safety Act 2002 to conduct a
Contractor	business or undertaking that includes the performance of electrical work.
New connection	A connection established or to be established where there is no
New connection	existing connection.
Photovoltaic (PV) inverter	Combination of PV array and electrical distribution network connect
system	inverter. For clarity, the term 'Solar Panels' could refer to any equipment
3,000	utilising the sun and should not be used when referring to systems that
	specifically generate electricity.
Reconnection	The energisation of the premises after their disconnection.
Retailer	An entity who engages in the activity of selling electricity to retail
	customers. HIE is a retailer.
Retail customer	A person or entity to whom electricity is sold to by a retailer.
Shall	Indicates that a statement is mandatory.
Should	Indicates a recommendation, advisory or preferred.
Uninterruptable Power	Provides continual power to a load when the mains power fails for a
Supply (UPS)	period of time. It typically comprises a battery and an inverter.
Unmetered supply	A metering installation that does not require a meter to measure the
	flow of electricity and accordingly there is a requirement to determine
	by other means the electrical energy usage data.

#### 5. New Connections & Connection Alterations

#### 5.1 Connection Overview

Where any new connections or connection alterations are required, application to HIE shall occur to enable the review of any design, construction and energisation requirements. For any proposed new or altered connections the application process identified within the Hamilton Island Building & Siting Guidelines shall to be adhered to.

#### 5.2 Connection Procedure

The following is the procedure to apply for new connections or for connection alterations:

- 1. Engage a licenced electrical contractor
- 2. Submit the design to approvals@hamiltonisland.com.au for Design Review
- 3. A HIE representative will provide additional information once a design review has been conducted. Proceed only once HIE has agreed to the scope of works.
- 4. If required submit an HIE Utilities Connection Application form which can be found on the website identified within section 11.
- 5. The licensed electrical contractor completes the works and submits a HIE Private Application for Electrical Supply form as per Appendix 1, this can also be found on the website identified within section 11.
- 6. Request a supply energisation date at least five business days' notice is required. Note that energisation/commissioning of the connection is also inclusive of final testing as per Section 7.3.

For HIE contact information see Section 11.

## **5.3 Connection Charges**

In some circumstances, new connections or connection alterations may require augmentation to the existing electrical distribution network to extend or ensure sufficient capacity is present at the proposed/existing connection point. After application, during the initial design/review process, if it is identified that augmentation is required additional consultation will occur prior to proceeding which may identify connection charges payable by the retail customer applicant.

# 6. Requests For Temporary Electrical Disconnection & Reconnection

Where a retail customer requires a temporary electrical supply disconnection and/or isolation, application to HIE is required as per the New Connections or Connection Alterations and Work Requests/Enquiries contact details identified within section 11. The temporary disconnection may be for construction, excavation, electrical works etc.

Note this section does not apply to permanent connections/disconnections or to planned or unplanned interruptions to supply. For permanent connections/disconnections contact the Engineering and Property Services office as per section 11.

# 7. Electrical Connection Requirements

### **7.1** Underground Electrical Connections

The HIE electrical distribution network is exclusively an underground network. Typically, electricity is supplied from an electrical pillar on the boundary of the customer's property, or as close as practically possible, which is the connection point. It is the responsibility of the retail customers licensed electrical contractor to install the consumer's mains and associated conduit as close as practical to the electrical pillar for termination by HIE personnel.

#### 7.2 Electrical Connection Capacity / Maximum of Demand

As a component of the connection application process, identified within Section 5, it is the responsibility of the retail customer, or their licensed electrical contractor, to specify the requested capacity of the connection. This is also to be supported with an associated maximum demand calculation which shall be completed as per the process identified within 2007 Electrical Installations (Wiring Rules). This assessment will determine the type of connection the customer requires.

Other than where multi-phase appliances are installed on the premises, should the connection request require/be greater than a 63A single phase supply the connection shall be a three phase connection and balanced as far as practical over the three phases (include the QEMM requirements for balancing of phases — 20A or 20%). However in some instances three phases may not be available at the property boundary and/or other local electrical distribution network capacity limitations may exist. This will be investigated within the initial design review conducted by HIE and hence augmentation and/or connection request amendment may be required i.e. a three phase 32A supply instead of a single phase 63A supply for instance.

Notwithstanding the provisions within the Building & Siting Guidelines, maximum demand calculations need to be advised as early as possible in the initial project planning process so that they can be taken into consideration with the Design Review approval process.

A CB, not isolator, after the meter shall be installed in private installations to limit demand.

# 7.3 Electrical Testing Prior to Energisation

For all new connections and connection alterations HIE will inspect and test the consumer's mains and main switchboard of an installation prior to energisation. Also it is the retail customers licensed electrical contractor's responsibility to disconnect/reconnect the consumer mains neutral conductor at the main switchboard to enable neutral identification testing in conjunction with HIE staff during commissioning/energisation of the connection.

Notwithstanding the above, it is the retail customers licensed electrical contractor's responsibility to install and test the electrical installation, up to the connection point, to ensure compliance with any relevant electrical acts, regulations and standards. Additionally any inspection and testing completed by HIE staff shall not be regarded as implying compliance with any design/standard for any part/component of the private installation.

The retail customers licensed electrical contractor shall also provide electrical testing records, along with completion of Section 7 of the HIE Private Application for Electrical Supply (Appendix 1), to HIE Electrical Services staff prior to energisation.

### 7.4 Air Conditioning System Requirements

In all new multi-unit developments, all air conditioning systems are to be connected to a separate circuit to allow load shedding. This circuit needs to be able to be controlled by a control system that has remote capacity.

New and complete replacement air conditioning systems are required to include "power down" systems. All balcony doors are to have switches that are connected to the system that turns the unit off after 2 minutes, when left open.

# 8. Electrical Metering Installations

To ensure a consistent approach within the HIE electrical distribution network, all of the electrical meters to be installed/commissioned shall be supplied by HIE (the Electrical Services department). The following sections identify the associated requirements for new and replacement metering installations.

# 8.1 Metering Requirements

The HIE electrical distribution network is exclusively an underground network. Typically electricity is supplied from an electrical pillar on the boundary of the customers property, or as close as practically possible, which is the connection point

#### 8.2 New & Replacement Meters

Where a retail customer requests a new or replacement meter the connection procedure, identified within Section 5.2, is required to be adhered to. Through this process the type/capacity of the meter is identified within the HIE Private Application for Electrical Supply form. As a result of this request HIE shall supply the meter/s identified within Table 1 with no charges incurred by the retail customer.

Table 1 – New or Replacement Meters

Metering Requirement	Meter Type	
Single phase direct connected	EDMI MK7C	
Poly phase direct connected	EDMI MK10A WC	
Poly phase current transformer connected *	EDMI MK10A CT Configured to match CT ratio	

<sup>\*</sup> Note where current transformer metering is required it is the responsibility of the retail customer to obtain and suitably install the current transformers and associated equipment i.e. test block.

If a meter replacement is required due to a fault within the existing meter, it shall be replaced by HIE.

# 8.3 Unmetered Supplies

As HIE does not currently have an exemption from the Australian Energy Regulator for unmetered supplies, they are not permitted within the HIE electrical distribution network.

# 9. Connection of Inverter Energy Systems

At present HIE will not permit any form of Embedded Generation. Inverter Energy Systems (IES), including Photovoltaic (PV) inverter systems, cannot be connected due to ongoing investigation into distribution network issues. The technology is constantly under review and this document will be updated to reflect changes as they arise.

UPS Systems may be connected, provided the UPS System cannot export power to the HIE grid/ network. Written assurance/declaration from the UPS System vendor confirming it is configured as a rectifier (and not allow export of energy to the AC Source/Grid) shall be attached to the Application Form.

## 10. Electrical Installation Auditing

Further to the requirements of Section 7.3, HIE has the ability to inspect a retail customers electrical installation to ensure ongoing compliance with relevant standards and to ensure the effective, safe operation of HIE's electrical distribution network. Where this is identified to occur notification will be given to the retail customer to arrange suitable requirements i.e. access, outages if required etc.

#### 11. Contacts

Enquiry	Email	Phone
For life threatening emergencies		000
Loss of supply or to report a problem		(07) 4946 9999
Account or payment enquiries	utilities@hamiltonisland.com.au	(02) 9433 0454
New connections or connection	approvals@hamiltonisland.com.au	1300 657 844
alterations		
Work requests / enquiries	approvals@hamiltonisland.com.au	1300 657 844

#### Web Sites:

Energy Information and Resources including Policies and Contracts www.hamiltonisland.com.au/energy

# 12. Approval

General Manager – Engineering & Services

Revision	Date Issued	Issued By
A	10/07/2019	Benjamin Staddon
В	13/11/2020	Jodi McDonald
С	12/02/2025	Ben Johnston

# APPENDIX 1 – HIE Application for Electricity Supply Form

# Connection to the HIE Electrical Distribution Network Policy HIE Application for Electrical Supply Form



1. Applicant & Owner Details		

Applicant Name	Owner Name	
Applicant Phone Number	Owner Phone Number	
Applicant Email Address	Owner Email Address	

# 2. Description of Works

Property Name			Property Lot / I	Plan Number		
Installation Type	Construction Supply	House	Unit / Apartment	Shop	☐ Industrial	Other *
* Please Specify						

# 3. Electrical Workers Details

Electrician Name	Contractor Name	
Electrician Phone Number	Contractor Phone Number	
Electrician Email Address	Contractor Email Address	
Electrician Licence Number	Contractor Licence Number	

# 4. Project Description

Type of Installation	New	□ Upgrade	□ Other
* HIE Planning Approval	Not Applicable	 Attached	
Energy storage (eg. UPS)	Not Applicable	 Attached	If applicable, attach vendor statement confirming UPS cannot export to AC Source/Grid.
Notes:			

 $<sup>\</sup>ensuremath{^{*}}$  All installations to comply with the HIE Building Design and Siting Guidelines

5 FI	lectrical	Inetal	lation	Details

Phases	Single Phase	Three Phase	Mains Cable Size/Type	

#### **MAXIMUM DEMAND TABLE - PLEASE PROVIDE LOAD DETAILS**

Load Group	Amps (A)	Amps (B)	Amps (C)	Existing / Additional / Comments
Lighting – A (i)				
Lighting – A (ii)				
Lighting – A (iii)				
Socket Outlets – B (i)				
Socket Outlets – B (ii)				
Socket Outlets – B (iii)				
Ranges, Cooking Etc. – C				
Heating, A/C Etc. – D				
Instant Water Heater – E				
Storage Water Heater – F				
Spa / Pool – G				
Communal Lighting – H				
Socket Outlets – I				
Appliances – J (i) (ii) (iii)				
Lifts – K				
Motors – L				
Appliances – M				
TOTAL				

-			
7	/. Property ()wher (	onsent and Rody	V Corporate Consent

	Testing and compliance, issued in accordance with s227 of the Electrical Safety Regulation 2013
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This certifies that the electrical installation, to the extent it is affected by the electrical work, has been tested to ensure that it is electrically safe and is in accordance with the requirements of the wiring rules and any other standard applying under the Electrical Safety Regulation 2013 to the electrical installation.

Electrician Name	Date	
Electrician Licence Number	Signature	

# 8. HIE Approval (To be completed by HIE Powerhouse)

Full Name	
Signature	

Hamilton Island Services Pty Ltd ABN 79 010 254 234

Approval for the connection is subject to all conditions listed in the Connection to the HIE Electrical Distribution Network Policy.