CM0003

Applications and Standards for Connection to a Distributed Generation of 10kW or Less in Total

Issue Version Number: 6.0

Data Classification: Public

Published Date: 23/09/2021

Next Review Due: 22/09/2022

This is an approved controlled document and is subject to change.

Please ensure you have the most up-to-date copy at all times.

Contact the Commercial group for the latest version.

CM0003 Applications and Standards for Connection to a Distributed Generation of 10kW or Less in Total

Overview

Document status

Draft ☐ **In Service** ☒ Under Review ☐ Archived ☐

Document purpose

The purpose of this document is to assist those wanting to connect small distributed generation 10kW or less in total to Unison's network.

Intended audience

This document applies to anyone wanting to connect small distributed generation to Unison's network.

Document contributors

Contributors	Name and Position Title	Approval Date
Creator	Jason Larkin Commercial Manager	20/09/2021
Authoriser	Nathan Strong General Manager – Commercial	22/09/2021
Approver	Nathan Strong General Manager – Commercial	22/09/2021

Key dates

Published Date 23/09/2021
Next Review Date 22/09/2022

Renewal period – yearly

Related references

Legislation

- Electricity Industry Participation Code 2010
- Electricity (Safety) Regulations 2010
- Electricity Act 1992
- Health and Safety at Work Act 2015

Standards

- AS4777.1-2005 Grid connection of energy systems via inverters Part 1: Installation requirements
- AS4777.2-2015 Grid connection of energy systems via inverters Part 2: Inverter requirements
- AS/NZS 5033:2012 Installation and safety requirements for PV arrays
- AS/NZS3000-2008 Electrical Installations (known as the Australian/New Zealand Wiring Rules)

Unison Forms

- DG1 Application Form
- Small Scale Distributed Generation Commissioning and Test Report Template

Continued on next page

Overview, Continued

Content This document contains the following topics:

1. Definitions

Introduction	The following are terms you will find in this guideline and in other documents relating to distributed generation (DG). They may help you to understand the terms and how they are used.
Applicant	An applicant applying for the connection of distributed generation facility that could be owned by the applicant or by a third party. For example, an electrician or installer can apply to install distributed generation on a customer's behalf.
Congestion/ congested	Congestion in the network occurs if an additional unit of electricity injected into the network would: • cause a component in the network (for example, a circuit or a transformer) to operate beyond its rated maximum capacity, or • give rise to an unacceptably high level of voltage at the point of connection to the network.
Customer	An electricity distribution customer who is connected to Unison's distribution network. This is the person or company listed for billing purposes against the Installation Control Point (ICP).
Distributed generation (DG)	Electrical power generation by any means, including from stored electricity, which is interconnected to Unison at a Point of Common Coupling. All generation that is connected to the Unison network is distributed generation.
Distribution service	All services required by or provided to a customer pursuant to the approved Tariff Schedules.
Distribution system	All electrical wires, equipment, and other facilities owned or provided by Unison for the provision of electricity to customers.
Embedded generation	Same as distributed generation.
Emergency	An actual or imminent condition or situation, which jeopardises Unison's distribution system integrity or safety of persons.
Generator	An individual electrical generator or generating system (including required equipment, protective equipment and structures) that generates electricity.

Continued on next page

Definition, Continued

ICP – Installation Control Point	This is the individual number allocated to each point where customer power usage is measured for billing by the retailer.
Metering	The measurement of electrical power flow in kWh, both from the network (import) and injecting back into the network (export).
Metering equipment	All equipment, and hardware including meter cabinets, conduit, etc that is necessary for metering. The metering equipment is managed by the retailer.
Network company	Unison is a network company and is also referred to as the *Electricity Lines Business or Lines Company*. Network companies are regulated by the Commerce Commission. The Commission sets rules for the delivery prices the company can charge, and target levels of network reliability.
Point of common coupling	This is the point on the network where a consumer's ICP is connected to other consumers.
SSDG	Small Scale Distributed Generator
Retailer	A retailer of electrical energy to consumers. Also referred to as an *Energy Trader*.

2. Distributed Generation Overview

2.1 What is distributed generation?

Distributed generation is a small scale power generator installed at residential or small commercial premises with an existing electricity connection (ICP) to a distribution network. Small generation systems are likely to include photovoltaic (solar cells), micro hydro and micro wind.

2.2 Why Unison must be informed of a generation connection

The Electricity Industry Participation Code (2010) requires Distributors to be informed if a generation is to be connected to electrical circuits. This is a requirement as distributed generation is connected to the network and could result in electricity flowing into the network. Distributors must be informed:

- for reasons of safety associated with the generation and network, and
- to ensure the integrity of market reconciliation.

If you intend to connect distributed generation or make changes to existing distributed generation, you will need to notify Unison and gain approval.

2.3 How to gain approval

To gain approval for the connection, you must comply with the requirements of this document. Even if your power generation is very small you must gain approval from Unison to ensure:

- it can be operated safely, and
- it meets electricity market requirements of the Electricity Industry Participation Code (2010).

2.4 When Unison does not need to be notified

Unison does not need to be notified if your generation system is:

- stand-alone, and
- not connected to an electrical installation connected to Unison's network.

2.5 DG larger than 10kW

For generation larger than 10kW, complete the application form DG2 – Initial Application for Connection of Distributed Generation > 10kW. This form is available on Unison's website www.unison.co.nz.

2.6 Information on selecting your system

For…	Information can be…
renewable energy sources	found on the Energy Efficiency Conservation (EECA) website http://www.eeca.govt.nz/
solar energy generation	obtained from Energy Efficiency Conservation (EECA).
identifying, selecting and installing an appropriate Distributed Generation system	obtained from your electrician, electricity retailer or electrical equipment supplier.

Continued on next page

Distributed Generation Overview, Continued

2.7 Before purchasing a system or changing an existing system

It is **important** that before choosing your system you have:

- determined that your system is eligible for application under Part 1A including:
  - being less than 10kW, having an inverter on the list of approved inverters, and
  - being in an area of Unison's network not identified as subject to congestion
- completed a DG Connection Application form (DG1), and
- received consent from Unison.

3. Safety and Standards

3.1 Overview

Electricity can cause serious harm, injury and damage, and should only be handled by certified electricians or electrical engineers.

Before making any applications, you should ensure that your electrician (or engineering specialist) is involved before any financial commitment has been made.

3.2 Technical standards and safety requirements

You must ensure that your generation scheme will be installed to comply with the technical and safety requirements as set out in the following standards:

- AS 4777.1-2005 Grid connection of energy systems via inverters Part 1: Installation requirements, except from voltage compliance level in section 4.2, where the compliance level of 230V +/- 6% stated in the Electricity (Safety) Regulations 2010 would apply for installations in New Zealand
- AS/NZS 5033:2012 Installation and Safety requirements for PV arrays, and
- AS/NZS 3000-2008 Electrical Installations (known as the Australian/New Zealand Wiring Rules).

3.3 System safety

To ensure your system is safe, the system itself must comply with the AS 4777.2-2015 Grid connection of energy systems via inverters Part 2: Inverter requirements standard.

This standard can be purchased from Standards Australia via the website www.standards.com.au.

3.4 Certificate

The vendor of the equipment you intend to use will need to provide you with a certificate. The certificate must show that the equipment:

- has been tested by an independent test organisation in New Zealand (or Australia), and
- meets the above standards.

SAA Approvals is accredited by the Joint Accreditation Service of Australia and New Zealand (JAS-ANZ) as a third party certification body.

A list of inverters currently meeting the standards and approved for connection to Unison's network can be found on the website http://www.solaraccreditation.com.au on the web page:

http://www.solaraccreditation.com.au/products/inverters/approved-inverters.html.

4. Connect and Install a Small-Scale Distributed Generator (SSDG)

4.1 When to use

Use this procedure when you want to install and connect a small scale distributed generator (SSDG) to your electrical installation at your property.

4.2 Before you begin

Before you begin this process, ensure that you have read and understood these guidelines.

4.3 Steps

Follow the steps below to connect and install a small distributed generator.

Step	Action
1	Select the system you wish to install and connect. **Note** It is important to make sure that the generator you purchase has: • complete manufacturer's installation instructions • design specification details, and • certification from the vendor that verifies: – it complies with AS4777.2, and – it has been tested against the standards by an independent test organisation in New Zealand or Australia, as listed in *Section 3 – Safety and Standards* of this document.
2	Select an electricity specialist to help you with your installation. **Note** This may be your electrician, an electrical engineer or your electrical contractor.
3	Complete the **DG1 Application form** to connect distributed generation at your property. Refer to *Appendix A* for an example of the DG1 Application form. **Note** This form is available on Unison's website www.unison.co.nz. For applications to be authorised, the Electricity Industry Participation Code (2010) requires that the application be: • fully completed, and • signed by the power account holder associated with the ICP.

Continued on next page

Connect and Install a Small Scale Distributed Generator (SSDG), Continued

Steps (cont)

Step	Action
3 (cont)	**What is Required to Complete the Application Form** To fill out the form you will need to know: • the name and contact details of the distributed generator and, if applicable, the distributed generator's system installer • the installation control point (ICP) identifier that applies to the SSDG, if it is known at the time of application • the physical location (i.e. the location of the SSDG within the premises) of the SSDG installation • the nameplate capacity of the SSDG • the SSDG fuel type (for example, solar, wind, hydro or liquid fuel) • the make and model of the inverter to be installed and information as to whether: (i) the inverter is: - included on the distributor's published list of approved inverters, or - not included on the distributor's published list of approved inverters. In this case the application must include a copy of the inverter's Declaration of Conformance with AS/NZS 4777.2:2015, and (ii) the inverter conforms with the protection settings specified in the distributor's connection and operation standards, and • any other relevant information. **Result** Based on the information provided with the application, Unison will determine the appropriate connection process established under the Code to be followed. Either: • Part 1A – SSDG **complies** with AS/NZS 4777 and Unison's connection and operation standard, or • Part 1 – SSDG **does not comply** with AS/NZS 4777 or Unison's connection and operation standard.

Continued on next page

Connect and Install a Small Scale Distributed Generator, Continued

4.3 Steps (cont)

<table>
<tr><th>Step</th><th>Action</th></tr>
<tr><td>4</td><td>Post or email the completed DG1 form to Unison’s New Connections team:

New Connections
Unison Networks Limited
1101 Omahu Road
PO Box 555
Hastings 4156

dist.gen@unison.co.nz

Acknowledgement
Once Unison receives your application, Unison will acknowledge the receipt of the application:

• within two (2) business days of receiving the application under Part 1A, and
• within five (5) business days of receiving the application under Part 1.

All applications received by Unison will be recorded and logged, and progress will be monitored.

Application Approval
<table>
<tr><th>If Unison…</th><th>then Unison will…</th></tr>
<tr><td>approves your application</td><td>• return the approved DG1 form following receipt of the application fee payment, and

• provide notification of the approval to connect to your nominated electricity retailer.

The latest application fee schedules are available on Unison’s website:

http://www.unison.co.nz/tell-me-about/electricity/solar-energy/distributed-generation/dg-1</td></tr>
<tr><td>cannot connect your generation for technical reasons</td><td>notify you of the estimated costs of modifications to the connection to enable connection of the proposed distributed generation.</td></tr>
</table>
</td></tr>
</table>

Continued on next page

Connect and Install a Small Scale Distributed Generator, Continued

4.3 Steps (cont)

Step	Action
5	Contact your electricity retailer: • to advise them of your intention to install distributed generation at your property, and • to negotiate: – the metering costs to provide export metering if this is not already in place, and – any payment arrangements for any excess electricity that you may generate. **Note** The installation and connection of generation equipment must: • be completed by qualified electrical tradespeople, and • comply with all the appropriate regulations, codes and standards.
6	Check metering is in place capable of measuring the electricity exported by the distributed generation (injected) into the network. **Note** This must be in accordance with the: • Electricity Industry Participation Code (2010) Part 10 – Metering, and • Unison's Pricing Policy available on Unison's website www.unison.co.nz. Your electrician will be able to explain the requirements to you. The electrician must guarantee the installation also meets the requirements of AS4777.1-2005. This is to ensure: • there is no risk to safety, and • damage does not occur to Unison's network.
7	Arrange for the installation of your generator. **Note** After installing your generator, your electrician will: • complete a testing and commissioning report containing the information identified in *Appendix C* • issue a Certificate of Compliance (COC) for the installation with a copy to be provided to Unison • arrange for an electrical inspector to inspect the installation as required for 'High Risk Work' defined in the Electricity (Safety) Regulations 2010 • liven the connection to your generator, allowing you to generate, and • return a copy of the completed testing and commissioning report including the applied settings and COC to Unison within 10 business days of connection.

Continued on next page

Connect and Install a Small Scale Distributed Generator, Continued

4.4 Warning!

Your DG will not be permitted to be connected to Unison's network if it:

- does not meet the applicable standards and legislation, or
- does not match the information provided with your application form.

Unison may request to inspect the distributed generator (DG) should there be reason for concern. In the event Unison needs to undertake an inspection, a fee for DG inspection is applicable as provided for in the Electricity Industry Participation Code (2010).

5. Connection Costs

5.1 What will you have to pay?

An application fee applies for all applications to connect distributed generation. These fees are a requirement under the Electricity Industry Participation Code – Part 6.

If Unison needs to undertake an inspection of the DG, a fee for DG inspection is applicable as provided for in the Code. The latest application fee schedules are available on Unison's website:

http://www.unison.co.nz/tell-me-about/electricity/solar-energy/distributed-generation/dg-1

These standards for connection of distributed generation of 10kW or less apply to the connection of distributed generation to a customer's installation connected to the network. The applicable delivery charges associated with the customer's network connection are listed in Unison's pricing schedule available on its website www.unison.co.nz.

As you are likely to require a change in metering equipment to measure surplus electricity generated and injected back into the network, your retailer may charge you additional fees for the import-export meters.

Unison may require a capital contribution towards the cost, if it identifies it must augment any part of its system to provide additional network capacity for a distributed generator applying to be connected in areas of known congestion. Any capital contribution will be determined in accordance with:

- Unison's Capital Contributions Policy, and
- the pricing principles contained in Part 6 of the Code.

If required, Unison will notify you when they have responded to your application. Unison will get your acceptance of these costs prior to any work being carried out.

Continued on next page

Connection Costs, Continued

5.2 Price changes

Unison's pricing is subject to regulation, and the level and structure of our charges may change. Unison reserves the right to make changes to prices in accordance with its terms and conditions.

6. Terms and Conditions of Application and Connection

6.1 Compliance

The distributed generation must comply with:

- all the requirements described in this document, and
- the requirements of NZ Standards and Regulations applicable to distributed generation.

6.2 Completion of application form

To avoid delays, it is important all parts of the application form are completed fully by the customer and the electrician.

Unison cannot process application forms if the information supplied is inadequate to progress the connection. In this instance:

- you will be asked to provide further information, and
- the response timeframe may be extended.

6.3 Protection and anti-islanding settings

Protection requirements must comply with AS4777.2:2015 (Grid connection of energy systems via inverters – Part 2 Inverter requirements) including the following protection and anti-islanding settings.

Inverter settings for DG connections to Unison's network must comply with the following voltage and frequency limits for sustained operations:

Parameters	Minimum Acceptable Setting	Maximum Acceptable Setting
Over-voltage (greater than 230V)[1]	230V	248V
Under-voltage (less than 230V)	180V	230V
Over-frequency (greater than 50Hz)	50Hz	52Hz
Under-frequency (less than 50Hz)	45Hz	50Hz

Continued on next page

[1] The over-voltage stage 1 setting can be based on either a 10-minute moving average (ENS50438 standard) or exceeding the setting range up to the maximum acceptable disconnection time.

Terms and Conditions of Application and Connection, Continued

6.3 Protection and anti-islanding settings (cont)

The inverter automatic disconnection device must incorporate passive anti-islanding protection with the following set point values:

Parameters	Minimum Acceptable Setting	Maximum Acceptable Setting	Maximum Disconnection Time (seconds)
Over-voltage (greater than 230V) – Stage 1	230V	260V	2s
Over-voltage (greater than 230V) – Stage 2	230V	265V	0.2s
Under-voltage (less than 230V)	180V	230V	2s
Over-frequency (greater than 50Hz)	50Hz	52Hz	2s
Under-frequency (less than 50Hz)	45Hz	50Hz	2s

Once the system has been installed and commissioned by the certified installer or electrician, the protection or anti-islanding settings must at all times remain compliant with:

- protection requirements incorporated in AS4777.2:2015 (Grid connection of energy systems via inverters – Part 2 Inverter requirements), and
- this document.

6.4 Effects on other customers

Normally, a small generator complying with the standards required by this document is unlikely to cause problems for Unison or other customers on the network.

Unison may require the generation to be disconnected, if the distributed generation system:

- causes power quality, voltage fluctuation, flicker, transient voltage damage, or
- is a nuisance to other customers at the Point of Common Coupling,

This will ensure Unison can maintain the network operational service levels and power quality in line with its obligations under the Electricity Act 1992. In such an event Unison will:

- investigate the cause, and
- work with the distributed generator to identify any issues with the distributed generation.

Unison will not provide any compensation should this be necessary.

Continued on next page

Terms and Conditions of Application and Connection, Continued

6.5 Interruption	If any fault occurs on a distribution network, any distributed generator must, through their own protection systems, automatically disconnect from the network. The customer has sole responsibility for the safety of their generating plant and equipment under such conditions.
6.6 Regulated terms for connection of distributed generation	The terms for connection of distributed generation to Unison's network are the '**Regulated terms for connection of distributed generation**' found in Part 6 of the Electricity Industry Participation Code 2010, Schedule 6.2.

Appendix A – DG1 Application Form

DG1 FORM

unison
The Powerlines People

YOU CAN RETURN YOUR COMPLETED CONNECTION FORM/S ONLINE BY SCANNING AND ATTACHING TO THE FORM UPLOAD AT: www.unison.co.nz/DGupload

ALTERNATIVELY YOU CAN POST TO THE ADDRESS BELOW, OR SUBMIT VIA EMAIL:
Unison Networks Limited 1101 Omahu Road, PO Box 555, Hastings 4156
Fax (06) 873 9394 Email: dist.gen@unison.co.nz

DISTRIBUTED GENERATION 0800 286 476 www.unison.co.nz

APPLICATION TO CONNECT DISTRIBUTED GENERATION ≤ 10KW

This form complies with the Electricity Industry Participation Code 2010 Part 6 Connection of Distributed Generation and constitutes an initial application for connection in accordance with Schedule 6.1, Part 1, Clause 2.

Any approved connection shall comply with the Unison connection and operation policies and the terms will be negotiated with Unison prior to connection.

The customer connection and ICP (installation control point) associated with any approved DG connection is subject to Unison's Distributed Generation Price Category.

Our policies, terms and conditions are available at www.unison.co.nz

INSTALLATION DETAILS

ICP Number:

(Tick Applicable box)

☐ Commercial ☐ Industrial ☐ Residential

No. of Phases (if known) ☐ Single ☐ Two ☐ Three

Existing connected DG: ☐ Yes ☐ No

Existing Energy Retailer: .....

Nominated Energy Retailer (if switching): .....

CUSTOMER AND INSTALLATION ADDRESS

Name: .....

Installation Address: .....

City: .....

Postal Address: .....

City: ..... Postcode: .....

Phone: ..... Mobile: .....

Fax: ..... Email: .....

AGENT DETAILS (IF APPLICABLE)

Full Name: .....

Company: .....

Address: .....

City: ..... Postcode: .....

Phone: ..... Mobile: .....

Fax: ..... Email: .....

ELECTRICIAN OR ELECTRICAL CONTRACTOR

Full Name: .....

Company: .....

Address: .....

City: ..... Postcode: .....

Phone: ..... Mobile: .....

Fax: ..... Email: .....

RETAILER OFFICE USE ONLY

☐ Retailer confirmation that import/export metering has been installed in accordance with the Electricity Industry Participation Code 2010 and Unison policies and standards.

Please complete and return form to Unison. Refer to contact information included at the top of the form.

INVERTER DETAILS

Manufacturer: .....

Model: .....

No. of Phases: ☐ Single ☐ Two ☐ Three

Output Voltage: ..... Output Current: .....

Output kW: ..... Output kVA: .....

Power factor: .....

Is the system on Unison's approved inverters list.
https://www.solaraccreditation.com.au/products/inverters/approved-inverters.html

☐ Yes ☐ No - Attach copy of Declaration of Conformity (DoC) with AS4777

Details of Isolation/Disconnection:

.....

Details of Protection Scheme:

.....

Settings comply with AS/NZS 4777 parts 1 and 2: ☐ Yes ☐ No

GENERATOR DETAILS

Type: ☐ Solar PV ☐ Micro Hydro ☐ Energy/Battery Storage
☐ Wind Turbine ☐ Other (specify): .....

Generator Installed Capacity kW: .....

Physical installation location within the premise:

.....

Expected connection date: ...../...../.....

CUSTOMER DECLARATION & ACCEPTANCE

Application must be signed by the party seeking to become the distributed generator i.e. Holder of the ICP. Not installer.

I hereby apply to connect a Distributed Generator to the Unison network and confirm that the above information is correct and that the Generator shall at all times be operated in accordance with all Unison connection and operational standards including arranging with my electricity retailer for import/export metering to be installed in line with Unison's standards and The Electricity Industry Participation Code (2010), Part 10 – Metering.

I confirm that I will not connect any generation until I have received written approval from Unison and must provide post installation documentation within 10 business days of connection.

I agree to Unison notifying the nominated energy retailer of the approved DG connection including the new price category that will apply.

I agree to pay the DG1 application fee and any other processing fees that may apply, to Unison Networks.

Please Invoice: ☐ Solar Agent ☐ Customer ☐ Other: .....

Name: .....

Date: ...../...../..... **Signature:** .....

UNISON OFFICE USE ONLY

Date Received: ...../...../..... **DG Price Code:** .....

☐ Approved ☐ Declined ☐ Further Information required

☐ Written notice to acknowledge receipt of a completed application, date: (2 business days - Part 1A, 5 business days Part 1)

☐ Part 1A Process (by 10 business days) ☐ Part 1 Process (by 30 business days)

Name: .....

Date: ...../...../..... **Signature:** .....

Appendix B – Congestion Management, Curtailment and Interruption Policy for Distributed Generation of 10kW or less

Congestion

Unison's network is primarily designed and established for electricity flows in one direction. Increasing numbers of distributed generation could introduce bi-directional electricity flow on the network. This may lead to congestion of Unison's low voltage and high voltage networks.

Network congestion occurs if an additional unit of electricity injected into the network would:

- cause a component in the network (for example, a circuit or a transformer) to operate beyond its rated maximum capacity, or
- give rise to an unacceptably high level of voltage at the point of connection to the network.

Managing congestion

Unison manages its network congestion by:

- ensuring distributed generation connection is in unconstrained areas or accompanied by appropriate network upgrade, and
- implementing real-time operational curtailment rules and arrangement on case-by-case basis.

Appendix C – Small Scale Distributed Generation Commissioning and Test Report Template

Small Scale DG Commissioning and Test Report

Installation Test by: _____ Date of Completed Test: _____

Loss of Network Supply Auto-Isolation Test Proven: Yes/No

Auto-isolation Disconnection Speed (seconds): _____

Auto-restoration (existing generator) after Specified Delay Proven: Yes/No

MEM earth test results (ohms):

R-N (ohms): _____ W-N (ohms): _____ B-N (ohms): _____

Protection Settings (attached details if required)

Voltage and Frequency Protection Settings

Parameters	Minimum Acceptable Setting	Maximum Acceptable Setting	Maximum Disconnection Time (seconds)
Over-voltage (greater than 230V)[1]			
Under-voltage (less than 230V)			
Over-frequency (greater than 50Hz)			
Under-frequency (less than 50Hz)			

Other Protection Settings Comply with AS4777.3: Yes/No

Electrical Inspection to AS/NZ30000:2007 and Electricity (Safety) Regulation 2010 completed: Yes/No

Name of Electrical Inspector: _____

Other Test Specified by Unison: _____

A Certificate of Compliance (COC) and Record of Inspection (ROI) from a registered electrician/licensed electrical inspector that the DG complies with the Electricity (Safety) Regulations 2010 should accompany this report.

Completed report including COC must be forwarded to:
New Connections
Unison Networks Limited
1101 Omahu Road
PO Box 555
Hastings 4156

Report completed by: _____

Address: _____

Date: _____

[1] Single-stage over-voltage protection

Form Issued under CM0003 Applications and Standards for Connection to a DG Less than 10kW in Total
Uncontrolled When Printed
Page 1 of 1
Classification – Public

Appendix D – Summary of Document Changes

Date	Version No.	Changes to Document	Creator	Authoriser	Approver
09/06/2006	1.0	New document	Policy & Practice Manager	Customer Relations Manager	GM – Networks & Operations
26/06/2007	1.1	Addition of Appendix A Application Form	Commercial Manager	GM Networks & Operations	CEO
05/08/2014	2.0	Full review and update to new template. Document renamed to Applications and Standards for Connection to a Distributed Generation Less than 10kW. Update to references and links to Unison's information and Application process for connection of DG. External website links updated. Specific reference added; connection being under regulated terms for connection of distributed generation, Part 6 of The Electricity Industry Participation Code 2010 – Schedule 6.2.	Commercial Manager	GM Commercial	GM Commercial
12/12/2016	3.0	Full review to reflect: • updates effective October 2016 to the Electricity Industry Participation Code 2010 to incorporate the updated standard, AS4777.2:2015 (Grid connection of energy systems via inverters – Part 2 Inverter requirements), and • Part 1 A process for DG applications. Update to form in Appendix A. Addition of Appendix B and C.	Commercial Manager	GM Commercial	GM Commercial

Continued on next page

Appendix D – Summary of Document Changes, Continued

Date	Version No.	Changes to Document	Creator	Authoriser	Approver
19/12/2018	4.0	Full review. Reference to fax removed from procedure as a means of contacting/sending form Form updated in Appendix A. Review period for document set to 12 months to ensure document complies with current Code obligations and reflects current processes. The Electricity Authority are consulting on some potential changes to inverter standards, approval processes, and congestion management requirements. Once this consultation process is completed and the Authority's decision is published these will be included in the document over the next 12 months.	Commercial Manager	GM Commercial	GM Commercial
10/08/2020	5.0	Document reviewed with no changes made. Unison waiting decision from Electricity Authority on changes to Part 6 of Code, including inverter standards, settings and congestion management. This decision is expected in 2021. Document to be reviewed once decision has been made.	Commercial Manager	GM Commercial	GM Commercial
22/09/2021	6.0	Document reviewed with no changes made. Unison waiting decision from Electricity Authority on changes to Part 6 of Code, including inverter standards, settings and congestion management. This decision is expected in late 2021. Document to be reviewed and updated once decision has been made.	Commercial Manager	GM Commercial	GM Commercial