

# Connection of small scale distributed generation (equal to or less than 10 kW) to a local network

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Guidelines

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## **Disclaimer**

The purpose of this guideline (guideline) is to assist participants to understand and comply with the Electricity Industry Participation Code 2010 (Code). However, it is not a substitute for, nor does it form part of the Code. If there is any inconsistency between the content of this guideline and the Code, the Code takes precedence.

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## Executive summary

The process for the connection of distributed generation is set out in Part 6 of the Code. The Authority completed its operational review (review) of Part 6 in August 2014. The feedback the Authority received during its review contributed to a significantly improved Part 6 that now reflects the reality that most new distributed generation connection applications are for relatively small-scale systems that use standards-compliant network interface equipment. This guideline has been developed to help distributed generators and distributors to understand and apply the requirements of the revised Part 6 related to small-scale distributed generation (SSDG) that has a maximum capacity of 10 kW.

Part 6 now includes a new Part 1A to Schedule 6.1 (Part 1A) that provides for a simpler process for distributed generators seeking to connect SSDG. The framework under Part 1A enables distributed generators to:

- (a) connect new SSDG whether on regulated terms or other agreed terms; or
- (b) continue an existing connection of SSDG when:
  - (i) a connection contract has to be extended or has expired;
  - (ii) there is no existing connection contract and the regulated terms do not apply; or
  - (iii) changing the nameplate capacity or fuel type of connected SSDG.

The Authority considers that the simplified process under Part 1A will encourage SSDG owners to notify distributors of the presence of SSDG. The objectives of this simplified process are to:

- (a) lower transaction costs to improve the efficiency of the industry
- (b) lower a barrier to SSDG competing in the generation market
- (c) reduce safety risks.

To connect SSDG under this process, the distributed generator must:

- (a) apply to its distributor
- (b) have SSDG that has been designed, installed, tested, inspected, and connected in accordance with specified standards and regulations, including the relevant distributor's connection and operation standards and congestion management policy.

If the SSDG does not meet the criteria for connection under Part 1A, the SSDG owner must apply using the existing process under Part 1 of Schedule 6.1.

This guideline provides information on the two processes for connecting SSDG under Part 1 and Part 1A of Schedule 6.1. However, the Authority expects that most new connections and changes required to existing SSDG connections (to enable continuing connection) will be processed under Part 1A.

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## 2 Introduction

- 2.1 This guideline outlines the connection processes for small-scale distributed generation (SSDG) under Parts 1 and 1A of Schedule 6.1 of the Electricity Industry Participation Code 2010 (Code). A separate guideline for distributed generation with a capacity greater than 10 kW (under Part 2 of Schedule 6.1) will be available soon on the Authority's website. Schedule 6.1 is contained within Part 6 of the Code (Part 6), that sets out the regulated requirements for the connection of distributed generation.
- 2.2 Distributed generation means equipment used, or proposed to be used, for generating electricity that is:
- (a) connected, or proposed to be connected, to a distribution network that is directly or indirectly connected to the grid, or to a consumer installation that is connected to a distribution network<sup>1</sup>
  - (b) capable of injecting electricity into that distribution network.
- 2.3 A distributed generator, for the purposes of Part 6, means a person who owns or operates, or intends to own or operate, distributed generation.<sup>2</sup>
- 2.4 Distributed generators own and operate a wide variety of distributed generation equipment connected to distribution networks throughout New Zealand, ranging from small-scale plants of a few kilowatts or less through to large power stations capable of generating many megawatts of power.
- 2.5 Part 6:
- (a) came into effect on 1 November 2010 and replaced the Electricity Governance (Connection of Distributed Generation) Regulations 2007 that were in force from 30 August 2007 until 31 October 2010
  - (b) regulates the connection of distributed generation to distribution networks and provides a set of default regulated terms that apply if a distributor and distributed generator do not negotiate a connection contract
  - (c) enables connection and continued connection of distributed generation if connection is consistent with the distributor's connection and operation standards.
- 2.6 The Authority reviewed Part 6 from late 2011 to July 2014 to investigate and resolve a number of technical issues with the regulated process by which distributed generators can apply to connect distributed generation to a distributor's local network.
- 2.7 Following the review, the Authority amended Part 6 in August 2014, with the amended version coming into effect on 23 February 2015.

### Registration of distributed generators

- 2.8 Section 7(1)(g) of the Electricity Industry Act 2010 (Act) provides that a person, other than a generator, who generates electricity that is fed into a network is an industry participant.

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<sup>1</sup> A generation plant directly connected to the national grid (as opposed to a distribution network) is not distributed generation.

<sup>2</sup> Clause 1.1(1) of the Code.

- 2.9 Distributed generators that are either directly connected to a distribution network, or connected to a consumer installation that is connected to a distribution network, meet this definition. Under section 9(1) of the Act, industry participants must:
- (a) register as participants by supplying the Authority with the information specified in section 27(2) of the Act<sup>3</sup>
  - (b) comply with the Code.
- 2.10 Distributed generators that propose to connect to a distribution network (but are not yet connected) do not qualify as industry participants under the Act and are not regulated by the Code.<sup>4</sup>

### Information to be provided by distributors

- 2.11 Each distributor must provide on its website:<sup>5</sup>
- (a) suitable guidance documentation for connection of distributed generation, including the distributor's:
    - (i) application forms where applicable<sup>6</sup>
    - (ii) connection and operation standards
    - (iii) fees
    - (iv) regulated terms for connection and information on how the regulated terms apply if the parties do not enter into a connection contract
    - (v) interruption and curtailment policies
    - (vi) contact information
  - (b) an up-to-date list of the make and model of every inverter the distributor has previously approved for connection to the network which should identify the specific AS 4777 edition that was used for conformance testing of each approved inverter (e.g. AS 4777-2005)<sup>7</sup>
  - (c) an up-to-date list of all specific locations on its network that are currently known to be subject to export congestion (or that are reasonably expected to become subject to export congestion within the next 12 months) and, hence, unable to accept additional export of electricity from distributed generation connections at specific times.<sup>8</sup>

<sup>3</sup> Information on how to register as an industry participant is at <http://www.ea.govt.nz/operations/industry-participants/>.

<sup>4</sup> If the distributed generator (who is not yet connected) does not comply with the requirements for connecting distributed generation under Part 6, it will not be in breach of the Code. However, the distributor that the distributed generator is applying to is unlikely to allow the distributed generator to connect its distributed generation in such circumstances. This is because the distributor is likely to have mirrored the requirements for connecting distributed generation under Part 6 in its own connection and operation standards, which the distributed generator must comply with to connect distributed generation.

<sup>5</sup> Clause 6.3 of the Code.

<sup>6</sup> Although application forms are not required for the process under Part 1A, they are required under Part 1. However, a distributor may choose to have one on its website for both processes.

<sup>7</sup> To be clear, the distributor is not responsible for conformance testing of inverters. The distributor is only required to publish information that identifies the make and model of all inverters that have previously been submitted in applications under Part 6, and for which it has received appropriate Declaration of Conformity documentation has been received.

<sup>8</sup> Export 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. The



- 2.12 Each distributor must identify export-congested parts of their networks. This identification should include reference to districts, suburbs, feeders, streets or street addresses (as may be relevant) so as to clearly indicate that a point of connection of distributed generation to the network may be subject to export congestion restrictions. In practice, these location descriptions will relate to specific feeders and will be in the same format as those that distributors use when notifying consumers and retailers of planned outages. Generic network area descriptions (for example, 'parts of the northern suburbs of Wellington') are not sufficient for this purpose.

### **Connection approval process**

- 2.13 A distributed generator has to obtain approval (actual or deemed) before:<sup>9</sup>
- (a) connecting new distributed generation whether on regulated terms or other agreed terms; or
  - (b) continuing an existing connection in a situation in which:
    - (i) a connection contract has to be extended or has expired;
    - (ii) there is no existing connection contract and regulated terms do not apply; or
    - (iii) the distributed generator wants to change the nameplate capacity or fuel type of connected distributed generation.

## **3 Connecting SSDG under Part 1A**

### **Applying for connection**

- 3.1 The Authority expects that the majority of new connections will be processed under Part 1A.
- 3.2 To connect under Part 1A, the SSDG must have been designed, installed, tested, and connected in accordance with specified standards such as AS 4777 and regulations such as the Electricity (Safety) Regulations 2010.
- 3.3 The objectives of the simplified process established under Part 1A are to:
- (a) lower transaction costs to improve the efficiency of the industry
  - (b) lower a barrier to distributed generation competing in the generation market
  - (c) reduce safety risks by ensuring that all relevant parties are aware that the SSDG has been connected.
- 3.4 A distributed generator that seeks to connect SSDG to a distributor's network may apply to the distributor for approval under Part 1A instead of Part 1 of Schedule 6.1 (Part 1) if the SSDG:
- (a) is designed and installed in accordance with AS 4777.1
  - (b) incorporates an inverter that has been type-tested and issued a Declaration of Conformity (DoC) with all relevant parts of AS 4777.2 by a laboratory with accreditation issued or recognised by International Accreditation New Zealand
  - (c) will have protection settings that meet the distributor's connection and operation standards

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purpose of identifying areas of the network that are subject to export congestion is to provide prospective distributed generators at the earliest possible time with information that may impact their decision to invest in distributed generation.

<sup>9</sup> Under clause 9F(3) of Schedule 6.1, approval to connect SSDG under Part 1A may be deemed.

- (d) complies with the distributor's connection and operation standards and congestion management policy.
- 3.5 As outlined in paragraph 2.13 of this guideline, if a distributed generator applies for approval to connect SSDG under Part 1A, the distributed generator's application must specify whether the distributed generator seeks a new connection or a continued connection.<sup>10</sup>
- 3.6 The application must also include the following information:
- (a) the name and contact details of the distributed generator and, if applicable, the distributed generator's system installer
  - (b) the installation control point (ICP) identifier that applies to the SSDG, if it is known at the time of application
  - (c) the physical location (ie, the location of the SSDG within the premises) of the SSDG installation
  - (d) the nameplate capacity of the SSDG
  - (e) the SSDG fuel type (for example, solar, wind, hydro or liquid fuel)
  - (f) the make and model of inverter to be installed and information as to whether the inverter:
    - (i) is:
      - (A) included on the distributor's published list of approved inverters; or
      - (B) not included on the distributor's published list of approved inverters, in which case the application must include a copy of the inverter's DoC with AS 4777
    - (ii) conforms with the protection settings specified in the distributor's connection and operation standards.
- 3.7 The distributed generator must accompany its application with payment of any application fee specified by the distributor using a payment method specified by the distributor.
- 3.8 The prescribed maximum fees for applications under Part 1A are:
- (a) \$100 (excluding GST) for making an application for connection
  - (b) \$80 (excluding GST) for processing information related to the remedy of a deficiency with the application documentation
  - (c) \$60 (excluding GST) for an inspection of the SSDG, if the distributor requires an inspection.
- 3.9 A third party (other than the distributor or the distributed generator) can assist with preparing an application under Part 6, but the party that seeks to become the distributed generator must authorise the application by signing it.<sup>11</sup>

<sup>10</sup> Under clause 8(1) of Schedule 11.1 of the Code, a distributor must alert the registry regarding a change in nameplate capacity or fuel type for distributed generation at an ICP in its network. To enable a distributor to meet this requirement, the distributed generator must alert the distributor to any changes (both increases and decreases) to the nameplate capacity or fuel type for its SSDG. Permitted fuel types can be found in SD-020 of the Registry Functional Specification. The registry functional specification can be found on the registry homepage: [https://www.electricityregistry.co.nz/bin\\_public/jadehttp.dll?MariaWebR](https://www.electricityregistry.co.nz/bin_public/jadehttp.dll?MariaWebR).

<sup>11</sup> This anticipates that the distributed generator will connect the distributed generation under the regulated terms set out in Schedule 6.2, in which case the contractual relationship is between the distributor and the distributed generator.

- 3.10 A distributor must acknowledge receipt of an application under Part 1A within two business days of receiving the application.

## Distributor's decision on application

- 3.11 A distributor must approve a distributed generator's application to connect SSDG applied for under Part 1A, if it is satisfied that the SSDG in the application meets the requirements set out in Part 1A.
- 3.12 If the distributor approves the application made under Part 1A, it must notify the applicant of this no later than 10 business days after the date on which the application was submitted.
- 3.13 The distributed generator may connect the SSDG to the network if it receives a notice of approval from the distributor. However, provided the distributed generator has not contributed to a delay in granting approval,<sup>12</sup> if the distributed generator does not receive a notice of approval within 10 business days of the date on which it submitted the application:
- (a) the distributor is deemed to have approved the application (deemed approval)
  - (b) the distributed generator may connect the SSDG.
- 3.14 The distributor may inspect the SSDG for the purposes of:<sup>13</sup>
- (a) verifying the information contained in the application; or
  - (b) verifying that the SSDG meets, or continues to meet, the requirements of Part 1A.
- 3.15 The distributor must provide the distributed generator with at least two business days' notice of the time and date of the inspection. The distributed generator must provide the distributor with reasonable access to the site of the SSDG for inspection purposes and pay the fee specified by the distributor in accordance with clause 6.3(2)(e) of Part 6. Approval to connect will not be deemed if the distributed generator does not provide reasonable access.<sup>14</sup>
- 3.16 Similarly, approval will not be deemed if a distributed generator has not rectified a deficiency in its application that the distributor has notified it of.<sup>15</sup>
- 3.17 If the distributor detects a deficiency with the application under Part 1A, it must notify the distributed generator (within 10 business days) and provide clear reasons for the decision along with the steps the distributed generator must take to have the application reconsidered. If the distributed generator wishes to proceed with the application, the distributed generator must:
- (a) remedy all deficiencies to the distributor's satisfaction within 10 business days of being notified
  - (b) not connect the SSDG unless final approval is given.<sup>16</sup>
- 3.18 If the distributed generator elects to remedy the deficiency at a later stage, the distributor may charge the appropriate fee(s) up to the limit set out in Schedule 6.5 of the Code.

## Export congestion

- 3.19 A distributor may:
- (a) advise the distributed generator that the connection of new SSDG (or a change in the nameplate capacity or fuel type of an existing SSDG installation) is in an area of the network that is subject to export congestion

<sup>12</sup> Clause 9H of Schedule 6.1.

<sup>13</sup> Clause 9C of Schedule 6.1.

<sup>14</sup> Clause 9C and clause 9H of Schedule 6.1

<sup>15</sup> Clause 9H(2)(a) of Schedule 6.1.

<sup>16</sup> Clause 9E of Schedule 6.1.

- (b) work with the distributed generator to assess whether solutions exist to mitigate the export congestion
  - (c) impose export restrictions at certain times, consistent with the distributor's congestion management policy.
- 3.20 In areas of its network that are subject to export congestion, the distributor must take reasonable steps to work with the distributed generator to assess whether solutions exist to mitigate the export constraint. This may include restricting export to certain time periods.
- 3.21 A distributed generator that never exports excess generation into the network (eg, all of the electricity its SSDG generates is consumed within the premises) will not be subject to network export congestion restrictions.
- 3.22 If the distributor approves the distributed generator's application, the regulated terms for the connection of distributed generation set out in Schedule 6.2 of Part 6 apply unless the parties agree to substitute negotiated terms in place of the regulated terms.

### **Amendments to standards**

- 3.23 If the Authority gazettes a new version of AS 4777.2 or a new inverter standard, an SSDG installation connected under a previous edition of the standard may remain connected to the distribution network provided that it continues to comply with:
- (a) the regulated terms in Schedule 6.2 of Part 6; or
  - (b) if applicable, the terms of the relevant connection contract.
- 3.24 Failure to comply with certain of the regulated terms could lead to temporary or permanent disconnection of the distributed generation.<sup>17</sup>
- 3.25 If the Authority Gazettes a revision to AS 4777.2, new applications under Part 1A may be made under the previous edition of AS 4777.2 if the Authority specifies such a further transitional period when it Gazettes the revised AS 4777.2. The Authority would specify a transitional period if it considered that it would provide an orderly transition to a new edition of AS 4777, for example, allowing for clearance of inverter stock that received a DoC with the earlier edition of AS 4777.2. Such a transitional period would enable a smoother entry into the market for inverters that conform to the new edition of the standard.

### **Distributor generator must supply information**

- 3.26 Following connection of the SSDG, the distributed generator must supply the following post-connection documentation to the distributor within 10 business days of approval of the connection:
- (a) a copy of the Certificate of Compliance (CoC) for the SSDG installation issued under the Electricity (Safety) Regulations 2010<sup>18</sup>
  - (b) if it was not provided in the connection application, the ICP identifier that applies to the SSDG.

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<sup>17</sup> Clause 11 of Schedule 6.2 or clause 15.1(b) of Schedule 6.2.

<sup>18</sup> Having a CoC issued by a person authorised under the Electricity (Safety) Regulations 2010 provides assurance that the SSDG meets the relevant safety requirements set out in those regulations.

## Implementing Part 1A

- 3.27 The Code amendment establishing Part 1A will come into force on 23 February 2015. Before that date, each distributor should:
- (a) create business processes and forms relating to the new Part 1A
  - (b) modify existing application forms
  - (c) modify existing guidance material regarding distributed generation
  - (d) publish new and revised connection documentation on its website and make it available at its offices
  - (e) publish on its website a list of previously approved inverters
  - (f) publish on its website the location of any known export constrained areas of its network, or locations it expects to become subject to export congestion within the next 12 months.

## 4 Connecting SSDG using Part 1

- 4.1 A distributed generator who wishes to connect an SSDG installation to a network may not be able or wish to apply for connection using the Part 1A process. In that case, the provisions of Part 1 of Schedule 6.1 of Part 6 apply.

### Applying for connection

- 4.2 If a distributed generator applies for approval to connect SSDG under Part 1, the distributed generator must:
- (a) use the publicly available application form provided by the distributor
  - (b) provide any information in respect of the SSDG to which the application relates that is both:
    - (i) referred to in clause 2(3) of Schedule 6.1
    - (ii) specified by the distributor as being required with the application
  - (c) accompany its application with payment of any application fee specified by the distributor.<sup>19</sup>
- 4.3 Information that the distributor may require the distributed generator to provide with its application includes the following:<sup>20</sup>
- (a) the full name and address of the distributed generator and the contact details of a person that the distributor may contact regarding the distributed generation
  - (b) specifying whether the application is to:
    - (i) connect distributed generation; or
    - (ii) continue an existing connection of distributed generation that is connected in accordance with a connection contract if the connection contract—
      - (A) is in force and the distributed generator wishes to extend the term of the connection contract; or
      - (B) has expired; or

<sup>19</sup> Schedule 6.5 of Part 6 specifies the maximum fee a distributor may charge for processing a connection application under Part 1 of Schedule 6.1.

<sup>20</sup> Clause 2(3) of Schedule 6.1.

- (iii) continue an existing connection of distributed generation that is connected without a connection contract; or
  - (iv) change the nameplate capacity or fuel type<sup>21</sup> of connected distributed generation:
- (c) a brief description of the physical location at the address at which the SSDG is or will be connected
- (d) the nameplate capacity of the SSDG and evidence that the SSDG rate of output will not exceed 10 kW
- (e) the SSDG fuel type (for example, solar, wind, hydro or liquid fuel)
- (f) if the application is to connect SSDG, when the SSDG is expected to be connected
- (g) technical specifications of the SSDG and associated equipment, including:
- (i) technical specifications of equipment that allows the SSDG to be disconnected from the distribution network on loss of mains voltage
  - (ii) manufacturer's rating of equipment
  - (iii) number of phases
  - (iv) proposed or current point of connection to the distribution network (for example, the ICP identifier and street address)
  - (v) details of either or both of any inverter and battery storage
  - (vi) details of any load at the proposed or current point of connection
  - (vii) details of the voltage (for example, 415 V or 11 kV) when connected
- (h) information showing how the SSDG complies with the distributor's connection and operation standards
- (i) any additional information or documents that are reasonably required by the distributor.
- 4.4 The distributor must, within 5 business days of receiving an application, give written notice to the applicant advising whether or not the application is complete.

### **Distributor's decision on application**

- 4.5 A distributor must, within 30 business days after the date of receipt of a completed application, give notice in writing to the applicant stating whether the application is approved or declined.<sup>22</sup>
- 4.6 A distributor must approve an application if:
- (a) the application has been properly made in accordance with Part 6
  - (b) the information provided in the application would reasonably support an assessment by the distributor that:
    - (i) the distributed generator will comply at all times with the requirements of the Health and Safety in Employment Act 1992
    - (ii) the distributed generator will ensure that the distributed generation complies at all times with the Act and the Code

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<sup>21</sup> Permitted fuel types can be found in SD-020 of the Registry Functional Specification, which can be found on the registry homepage: [https://www.electricityregistry.co.nz/bin\\_public/jadehttp.dll?MariaWebR](https://www.electricityregistry.co.nz/bin_public/jadehttp.dll?MariaWebR).

<sup>22</sup> Clause 3 of Schedule 6.1.

(iii) the SSDG meets the distributor's connection and operation standards.

4.7 If the distributor declines the application, the distributor must provide a notice accompanied by the following information:

- (a) detailed reasons of why the application has been declined and, the steps that the applicant can take to achieve approval if it makes a new application
- (b) information about the default process under Schedule 6.3 of the Code for the resolution of disputes between participants about an alleged breach of the regulated terms or any other provision of Part 6
- (c) that, if the distributed generator is not a participant, the distributed generator may report to the Authority under the Electricity Industry (Enforcement) Regulations 2010 if it considers that the distributor has breached any requirement in Part 6 of the Code.

4.8 A distributed generator may, if requested by the distributor in writing, allow an extension of the time to process its application by up to 20 business days and must not unreasonably withhold consent to a request for an extension.<sup>23</sup>

4.9 If a distributor approves an application the distributed generator must give written notice to the distributor within 10 days (or an agreed longer period) after the approval that it intends to proceed to negotiate a connection contract. Failure of the distributed generator to meet the deadline for the notice to proceed excuses the distributor from any further obligations under the Code but does not prevent the distributed generator from making a new application.<sup>24</sup>

4.10 If the distributed generator has provided the required notice to proceed, the parties have 30 business days (or an agreed longer period) from the date the distributor receives the notice to negotiate a connection contract.<sup>25</sup>

### Testing and inspection

4.11 Unless the distributor waives the requirement, a distributed generator whose application is approved by a distributor must test and inspect the SSDG to which the application relates within a reasonable time frame specified by the distributor.<sup>26</sup>

4.12 The distributed generator must:

- (a) give adequate notice of the testing and inspection to the distributor, who may send qualified personnel to the site to observe the testing and inspection
- (b) give the distributor a written test report when testing and inspection is complete, including suitable evidence that the SSDG complies with the distributor's connection and operation standards
- (c) pay any fee specified by the distributor for observing the testing and inspection up to the limit set out in Schedule 6.5 of the Code.

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<sup>23</sup> Clause 4 of Schedule 6.1.

<sup>24</sup> Clause 5 of Schedule 6.1.

<sup>25</sup> Clause 6 of Schedule 6.1.

<sup>26</sup> Clause 7 of Schedule 6.1.



### **Connection of SSDG if connection contract negotiated**

- 4.13 If the distributor and distributed generator negotiate a connection contract, the distributor must allow the distributed generator to connect or continue the connection of the SSDG in accordance with the contract as soon as practicable.<sup>27</sup>

### **Connection of SSDG if connection contract is not negotiated**

- 4.14 If the parties do not enter into a negotiated contract before the period for negotiation has expired, then the regulated terms under Schedule 6.2 will apply to the new connection or the continued connection.<sup>28</sup>

## **5 Options for selling electricity from SSDG**

- 5.1 A distributed generator who wishes to trade electricity exported into a local network can either:
- (a) enter into an agreement with a trader trading on the same network;
  - (b) sell the electricity to the clearing manager; or
  - (c) gift the electricity to the electricity market.
- 5.2 The Authority anticipates that distributed generators with SSDG will generally arrange to sell their export quantities to the trader who retails electricity to the premises at which the SSDG is located. If the trader declines to enter into an arrangement for this purpose, the distributed generator will need to either:
- (a) seek an arrangement with another trader;
  - (b) persuade the current trader to gift the distributed generator's surplus electricity to the electricity market;
  - (c) become the trader for the ICP that the SSDG is connected to and sell electricity to the clearing manager; or
  - (d) modify the SSDG so that it does not export electricity (for example, by controlling the SSDG or introducing storage batteries).
- 5.3 The Code requires distributed generators to notify the reconciliation manager if they will not receive payment<sup>29</sup> for any electricity that they export to the distribution network.<sup>30</sup> As an example, a distributed generator might choose not to be paid for any electricity generated if the costs of metering changes outweigh its profits from exporting electricity.
- 5.4 Distributed generators that opt to sell electricity to the clearing manager come within the definition of "trader" in the Code. Traders must:
- (a) register and be certified as reconciliation participants<sup>31</sup>
  - (b) comply with the relevant parts of the Code for switching, metering, trading, and reconciliation<sup>32</sup>

<sup>27</sup> Clause 8 of Schedule 6.1.

<sup>28</sup> Clause 9 of Schedule 6.1.

<sup>29</sup> This is termed 'gifting'.

<sup>30</sup> For more detail about this notice, refer to clause 15.13 of the Code.

<sup>31</sup> Clause 15.38 of the Code.

<sup>32</sup> Parts 10 (Metering), 11 (Registry), 13 (Trading) and 15 (Reconciliation) of the Code.

- (c) ensure that there is a metering installation at the ICP to measure all electricity conveyed<sup>33</sup>
- 5.5 The next part of this guideline outlines the requirements for a metering installation that belongs to a distributed generator that wishes to export electricity from its SSDG into its distribution network.
- 5.6 The metering installation at the point of connection between a distributed generator's premises and the network must have import/export and active/reactive metering if it:
  - (a) is a category 2 (or higher category) metering installation<sup>34</sup>
  - (b) was certified after 29 August 2013
  - (c) is to be used for measuring and recording consumption and generation.<sup>35</sup>
- 5.7 Although it is not required in the Code, a distributor may still, in its connection and operation standards, require the distributed generator to have a category 1 metering installation if it is gifting the electricity.
- 5.8 The Code still requires a category 2 (or higher category) metering installation to have export reactive metering in addition to the other metering requirements under the Code, if:
  - (a) if a distributed generator with a category 2 (or higher category) metering installation intends to gift its surplus electricity<sup>36</sup>
  - (b) the category 2 (or higher category) metering installation was certified after 29 August 2013.

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<sup>33</sup> Clause 10.24 of the Code.

<sup>34</sup> Table 1 of Schedule 10.1 of Part 10 of the Code details the metering installation characteristics and associated requirements.

<sup>35</sup> Clause 10.37(1)(b) of the Code.

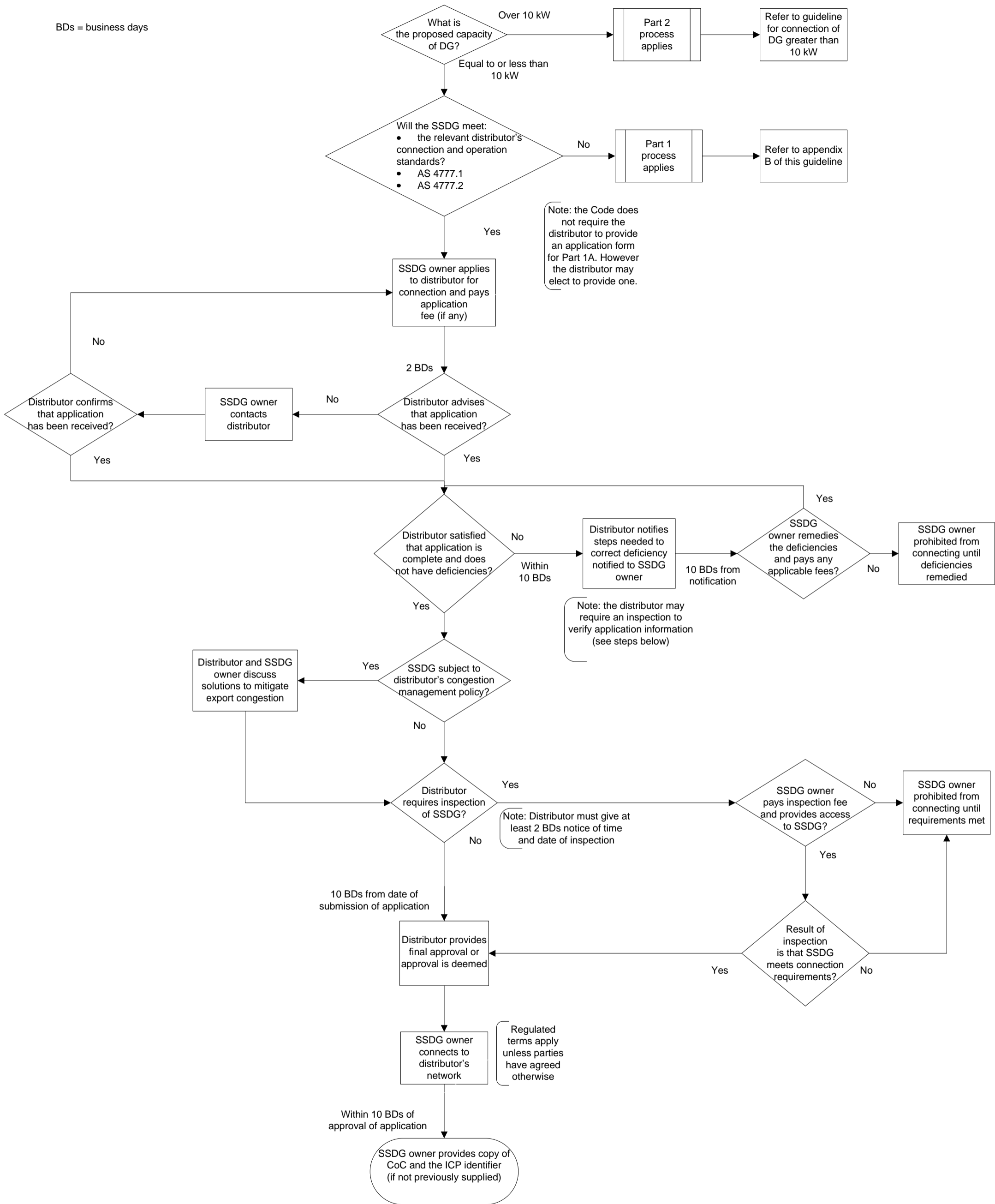
<sup>36</sup> Clause 10.37(1)(a) of the Code.

**Appendix A**

**Flow chart: Connection of small scale distributed generation (equal or less than 10 kW) to a distributor's network under the Part 1A process**

Connection of small scale distributed generation (equal to or less than 10 kW) to a distributor's network under the Part 1A process

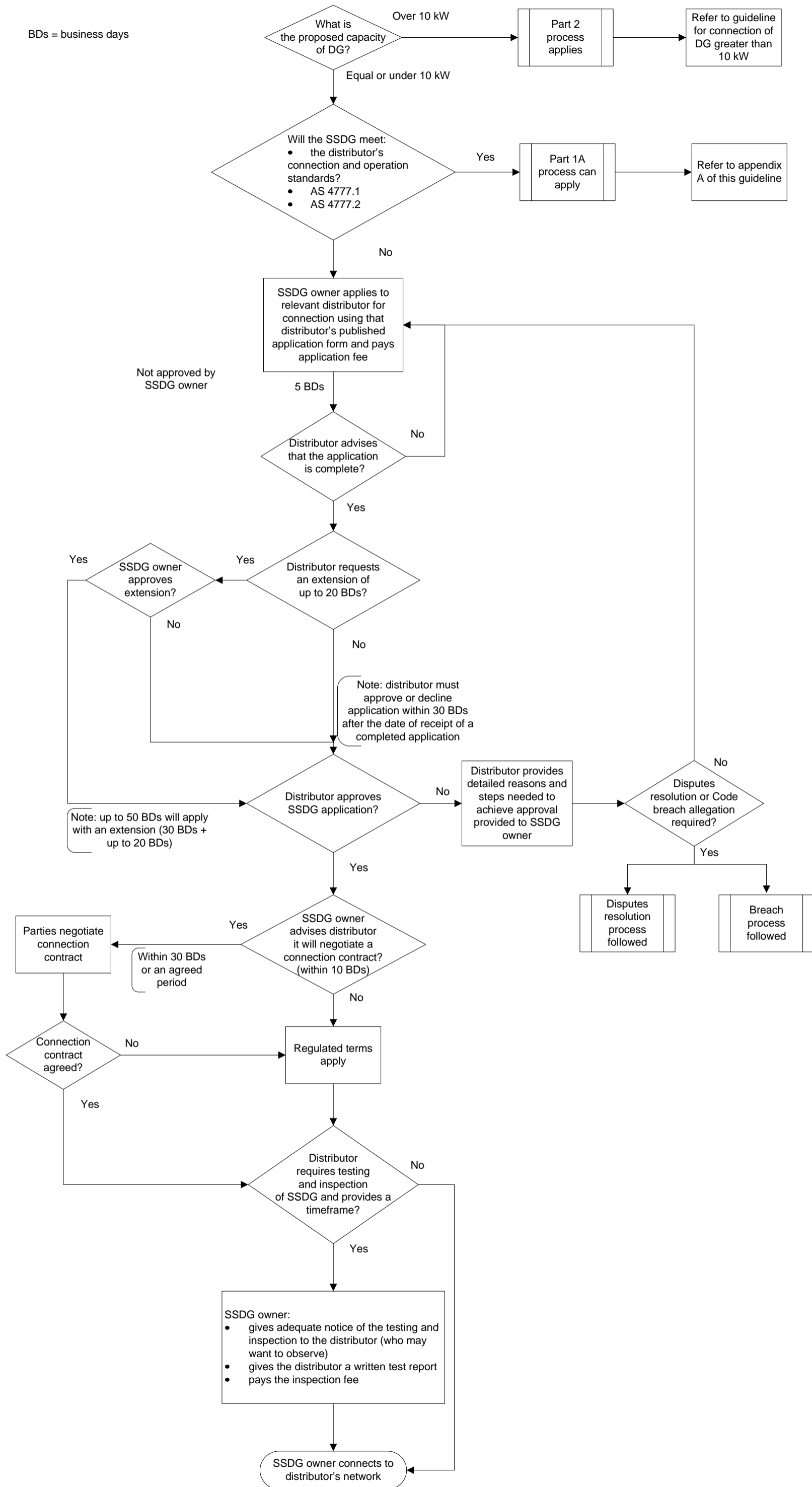
BDs = business days



**Appendix B**      **Flow chart: Connection of small scale distributed generation (equal or less than 10 kW) to a distributor's network under the Part 1 process**

Connection of small scale distributed generation (equal to or less than 10 kW) to a distributor's network under the Part 1 process

BDs = business days



Glossary of abbreviations and terms

<b>Act</b>	Electricity Industry Act 2010
<b>AS</b>	Australian Standard
<b>Authority</b>	Electricity Authority
<b>CoC</b>	Certificate of Compliance under the Electricity (Safety) Regulations 2010
<b>Code</b>	Electricity Industry Participation Code 2010
<b>DoC</b>	Declaration of Conformance to the requirements of AS4777.2
<b>ICP</b>	Installation Control Point
<b>SSDG</b>	Small-scale distributed generation