

Pre-consultation: Connection of distributed generation

An opportunity to submit issues for inclusion in formal consultation on Part 6 of the Code

11 October 2011

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1. Introduction and purpose of this report

1.1 Introduction

- 1.1.1 Distributed generation (DG), also known as embedded generation, is any form of electricity generator that is connected to a local network or an embedded network, but not directly connected to the national grid (Transpower's network).
- 1.1.2 Part 6 of the Electricity Industry Participation Code 2010 (Code) governs the connection process and terms for connection of DG by distributors.
- 1.1.3 Part 6 of the Code was created on 1 November 2010 and is a direct replacement of the Electricity Governance (Connection of Distributed Generation) Regulations 2007 which were in force from 30 August 2007 until 31 October 2010.
- 1.1.4 The purpose of part 6 of the Code is "...to enable connection of distributed generation if connection is consistent with connection and operation standards".
- 1.1.5 The Electricity Authority (Authority) is reviewing part 6 of the Code and expects to formally consult on the proposed changes in late 2011.
- 1.1.6 The review of part 6 is being run separately from the Authority's project to investigate the purchase of power by retailers from small-scale DG.
- 1.1.7 The 'purchase of power' project is being progressed through the Retail Advisory Group; a discussion paper is expected to be released in early 2012.
- 1.1.8 Part 6 of the Code is available from:
<http://www.ea.govt.nz/act-code-regs/code-regs/the-code/part-6/>
- 1.1.9 Information on DG is available from:
<http://www.ea.govt.nz/industry/market/distributed-generation/>
- 1.1.10 Information on the 'purchase of power' project is available from:
<http://www.ea.govt.nz/our-work/programmes/market/terms-and-conditions-for-distributed-generation/>

1.2 Purpose of this report

- 1.2.1 The purpose of this report is to provide an opportunity for stakeholders to inform the Authority of any options or issues they believe should be included in formal consultation documentation. It is hoped that by providing an opportunity for input now, the number of formal consultations can be reduced.
- 1.2.2 Since 2007, the Authority has received suggestions on how the connection processes could be improved. The Authority has also observed some scope for improvement. The list of proposed changes that the Authority expects to include in formal consultation later this year is included in Appendix A.
- 1.2.3 The Authority is not seeking opinions on the list in Appendix A. The list exists solely so that stakeholders that have suggestions for improvement can see whether their suggestions are already on the list.
- 1.2.4 The Authority is seeking suggestions for further possible amendments, or alternative solutions to the items listed in Appendix A. The Authority will then consider all suggestions to determine whether they should be included in the consultation document.
- 1.2.5 Any suggestions should fit within the purpose of part 6 of the Code.

2. Providing submissions

- 2.1.1 The Authority's preference is to receive submissions in electronic format. It is not necessary to send hard copies of submissions to the Authority, unless it is not possible to do so electronically.
- 2.1.2 Submissions in electronic form should be emailed to submissions@ea.govt.nz with 'Pre-consultation Paper – Connection of distributed generation' in the subject line.
- 2.1.3 If submitters do not wish to send their submission electronically, they should post one hard copy of their submission to the address below:
- Submissions
Electricity Authority
PO Box 10041
Wellington 6143
New Zealand
- or
- Submissions
Electricity Authority
Level 7, ASB Bank Tower
2 Hunter Street
Wellington
New Zealand
- 2.1.4 Submissions should be received by 5:00pm on Friday 4 November 2011. Please note that late submissions are unlikely to be considered, though they will be noted for any future reviews.
- 2.1.5 The Authority will acknowledge receipt of all submissions electronically. Please contact the Submissions' Administrator if you do not receive electronic acknowledgement of your submission within two business days.
- 2.1.6 Submitters should indicate any documents attached, in support of the submission, in a covering letter and clearly indicate any information that is provided to the Authority on a confidential basis. However, all information provided to the Authority is subject to the Official Information Act 1982.

Appendix A List of proposed changes to Part 6

- A.1 The below table is not intended to be an exhaustive list of options. The status quo is an option for every item.
- A.2 The description of the proposed change is designed to give an indication of the area that will be consulted on, rather than fully describe the proposal or provide drafting that complies with the Authority's Code Drafting Manual.

Ref. #	Relevant part, schedule or clause	Description of proposed change	Purpose of proposed change
1	Definition of "distributor" in part 1	Amend wording so distributors who own/operate a network that is not a distribution network (ie conveys less than 5GWh/annum and not the national grid) have no obligations under part 6.	Remove unachievable compliance obligation.
2	Definition of "distributed generator" in part 1	Redefine "distributed generator" so a party who does not yet own generation plant, but intends to, is included.	Aligns the wording with the clear intent of part 6.
3	Definition of "distributed generation" in part 1	Add some specific criteria around what constitutes "capable of injecting electricity". Under this proposal, DG would be considered incapable if the customer intends to only inject electricity momentarily in the course of starting or stopping their DG and if one of the following safeguards is in place: Interlocked switches, reverse run detection, or import/export metering with a back office process to report any generation volumes to the distributor.	DG that momentarily (eg < 100mS) injects electricity does not fit within the intended scope of part 6. However, a literal interpretation of the existing wording does indicate such DG would be included. The proposed change would improve the clarity of the requirement.

		OR Don't change the definition, but issue a guideline to the same effect. OR Don't change the definition, but introduce an 'opt out' clause for distributed generation that momentarily injects electricity. The clause would permit both parties to agree in writing to waive the part 6 connection process and regulated terms.	
4	Definition of "capacity" in part 1	Modify the definition of "capacity" so it applies only when used within part 6.	Correction of minor error as this definition should not apply to other parts of the Code.
5	Create a part 6 specific definition for "name plate capacity" in part 1	Provide a definition of "nameplate capacity". This may be derived from the definition of "nameplate" in section 73 of the Electricity Industry Act 2010 (Act), except allowing for kW in addition to MW. Where appropriate in part 6, use the new defined term.	Part 6 uses the words "capacity", "rated capacity", "nominal capacity", "installed capacity" and "name plate rating", with some instances having the same meaning. The proposed change would standardise usage, and provide a standard against which to determine what the 'name plate capacity' of DG is.
6	Various provisions throughout part 6	Replace all eight instances of the defined word 'year', with the wording of what was intended. So: "3 years" would become "36 months"	"Year" is defined in part 1 as "a year commencing on the 1st day of April of each calendar year and expiring on the 31st day of March the following calendar year". The proposed change would align the wording with the

		“5 years” would become “60 months” “preceding calendar year” and “preceding year” would become “preceding 1 January to 31 December period” “report to the Authority on or before 1 April each year” would become “report annually to the Authority on or before 1 April”	clear intent of part 6.
7	Clause 6.13	Enable DG connected prior to 30 August 2007 where the contract is due to expire, or if a distributed generator reasonably believes the contract will expire, to apply for a connection under part 6. The DG would be entitled to stay connected throughout the application process, subject to its existing arrangement. If an agreement is formed under part 6 (whether under the regulated terms or a contract), it would commence upon the expiry of the pre 30 August 2007 contract so that the DG remains connected to the distribution network. If a pre 30 August 2007 contract expired during the application process, the commencement date would not need to coincide with the expiry date.	Owners of existing DG connected before 30 August 2007 lack confidence that in the event of contract expiry or termination they will remain connected during the part 6 application process. The proposal would provide a clear mechanism for moving to a part 6 contract, provided the old agreement did in fact expire.
8	Clause 18(3)(c) of schedule 6.1	Move the requirements of clause 2(g) of schedule 6.4 into clause 18(3) of schedule 6.1, so that the explanation of charges accompanies the schedule of charges.	While the existing wording does not preclude this information being provided at this time, being more specific may assist with distributed generators’ ability to understand and verify in a timely manner any claims made by distributors.

9	Clause 25 of schedule 6.1	Extend confidentiality obligations in schedule 6.1 to apply to any confidential information that a distributed generator receives from the distributor during the connection application process. Currently, clause 25 of schedule 6.1 obligates only the distributor to maintain confidentiality.	Distributed generators may receive sensitive information during the application process. This proposed change would both protect the distributor and remove a disincentive toward sharing of information. At the moment, distributed generator confidentiality applies only once the regulated terms do.
10	Clause 26(f)(i) of schedule 6.1	Change “date of the original application” to refer to the date on which the distributor received the original application.	Improve the clarity of the requirement.
11	Clause 26(f)(i) of schedule 6.1	Change “the date of connection” to refer to the date on which the connection contract is formed, whether by agreement or as determined under clause 9 or 24 of schedule 6.1.	Change the requirement to improve data availability.
12	Clause 26 of schedule 6.1 and clause 7(1) of schedule 11.1	Add two fields to the registry: nameplate capacity and fuel type. Create an obligation on distributors to keep this information updated. AND EITHER Remove all clause 26 reporting requirements. OR Remove all clause 26 reporting requirements except for the number of declined applications, the number of extended	There is no comprehensive data on DG in New Zealand. Such data can be of use to network planners, network operators, investors in DG, vendors and installers of DG, and regulators. Reporting under clause 26 provides data back to 2007, but not a total view of all DG. The data available has gaps: applications underway at the time of reporting don’t show up as connected, and distributors are not always aware of DG removal. Adding the two new fields to the registry would, in

		applications and connection contract type.	conjunction with the installation type field, allow tracking over time in the registry of the existence, nameplate capacity and fuel types of DG. It is anticipated that the proposed registry changes could happen in conjunction with the proposed part 10 Code amendment, which include many registry changes. If registry changes are appropriate, then removing reporting obligations from part 6 would remove duplication of requirements. However, as the number of declined applications, the number of extended applications and connection contract type would not be captured in the registry, complete removal of part 6 reporting would cut off those data flows.
13	schedule 6.1	Allow for initial applications to be accepted with no need for a final application, provided it is by mutual agreement and that there are no notifications required under clause 16 of schedule 6.1.	Remove unnecessary administrative steps if the parties are in agreement.
14	schedule 6.1	Make the act of making a non-bona fide application a breach of the Code.	Applications can be lodged so that distributed generators are notified of other applications in the area – a form of prospecting the DG projects of others.
15	Clause 4(1)(a) of	Depending on the outcome of the proposed changes to part	At the moment, traders are responsible for metering

	schedule 6.2	10, clarify which party is responsible for the compliance of metering installations.	installation compliance. Proposed changes to part 10 would see the metering equipment provider made responsible.
16	Clause 4(3) of schedule 6.2	Change “meters” to “metering installations”.	Correction of minor error.
17	Clause 4(3) of schedule 6.2	Add “part 10 of” between “in” and “this”.	Provides a better signpost of where to look in the Code.
18	schedule 6.2	Create an obligation on distributed generators to seek approval from distributors if they wish to modify their DG in a way that would have a material effect on the distributor’s network.	Given the content of clause 11(e) of schedule 6.2, there should be a corresponding obligation on the distributed generator.
19	Clause 15(1)(b) of schedule 6.2	Reword 15(1)(b) of schedule 6.2 so that such an action must be preceded by a temporary disconnection per clause 11, and may only become a permanent disconnection following a failure to comply or remedy the problem.	Immediate disconnection can be essential for reasons of safety. However, there is no reason for such a disconnection to be permanent unless the distributed generator cannot or will not comply.
20	Clauses 15(2) and 15(3) of schedule 6.2	Consider whether “network supply point” (a defined term) would be more appropriate than “network service point”.	Improve the clarity of the requirement.

21	Schedule 6.2	Consider whether clauses 21(1)(b) of schedule 6.2 renders clause 24 of schedule 6.2 ineffective.	Improve the clarity of the requirement.
22	Clauses 20 and 22 of schedule 6.2	Consider whether clauses 20 and 22 of schedule 6.2 could be clarified to emphasise that participant liability to the Crown is set by the Act and the Electricity Industry (Enforcement) Regulations 2010, their liability to each other is set by these clauses, and the limitations do not cross over.	Improve the clarity of the requirement.
23	Clause 2(a) and 3 of schedule 6.4	Consider whether “market operation service provider” is the right definition in this context.	It is not clear why an efficient service provider is a useful yardstick against which to assess distributor operations.
24	Schedule 6.4	Amend the pricing principles to reflect that the incremental costs of the distributor should ignore any increased costs that are outside of the distributed generator’s area of electrical influence (usually at a single GXP).	Under Transpower’s current pricing methodology, when a DG plant reduces a distributor’s charges at a particular grid exit point (GXP), that means (simplistically) the difference is recovered from other GXPs. Whether those ‘other’ GXPs happen to be in the same distributor’s network or not shouldn’t influence the pricing principles. A similar effect can happen with DG plants reducing constraint rentals.
25	Schedule 6.5	Specifically state that the maximum fees are GST inclusive.	Improve the clarity of the requirement.

