

20 December 2024

Submissions  
Electricity Authority  
P O Box 10041  
Wellington

Via email: [connection.feedback@ea.govt.nz](mailto:connection.feedback@ea.govt.nz)

Dear team,

**Re: Consultation Paper— [Network connections project: stage one amendments](#)**

NewPower Energy Services Ltd (NESL) appreciates the opportunity to make this submission on the Electricity Authority's (Authority) consultation on proposed changes to Part 6 of the Code.

NewPower Energy Services Limited (NewPower) the holding company for Infratec NZ Limited (Infratec) and NewPower Energy Limited (NEL), are subsidiaries of WEL Networks Limited, New Zealand's sixth largest distributor. Infratec, an Engineering, Procurement and Construction (EPC) company, is delivering low-carbon utility-scale solar and battery solutions at a time of unprecedented electricity demand growth in New Zealand. Infratec developed and commissioned Rotohiko, NZ's first utility scale 35 MWh battery energy storage system (BESS) facility at Huntly, connected to WEL Networks' distribution assets. By way of context for this submission, NEL is the owner, operator and trader of WEL Networks generation assets including the Rotohiko BESS, which operates within both Network and Grid compliance modes, and so can offer a range of network, transmission and energy market services within NZEM's wholesale market dispatch compliance rules. This BESS is already contracted to the System Operator as an ancillary service agent for instantaneous reserves.

Infratec has also constructed and commissioned approximately 66 MW of utility-scale solar farms connected to distribution networks in New Zealand for clients, with an additional 60MW currently under construction. We also commissioned NEL's 4MW Naumai solar farm in Northland in Q3 2024.

This consultation is relevant to NewPower because all NewPower's generation portfolio and most of the generation plants Infratec are constructing are connected to distribution networks and as such go through the Part 6 connection process with distributors. NewPower has experience going through the connection process with several different distributors and believes that the process and application of the process can be improved significantly.

## Key points in our submission

In summary, NewPower Energy Services Ltd:

1. Supports the Authority in looking to address issues in Part 6 of the code and to make the connection of new distribution connected load and generation more efficient.
2. Is supportive of the automatic approvals of initial / final applications if the maximum timeframe elapses.
3. Is concerned that the proposed timeframes for the different processes won't improve the overall connection process length. NewPower is also concerned that these proposed timeframes won't incentivise distributors to resource up for connection processing, as these timeframes are quite lengthy, and these timeframes are what set expectations. The Authority should base these timeframes on how quickly it would like the New Zealand economy to electrify whilst still being practical for distributors.
4. Thinks that the proposed timeframes should be reduced significantly. See the "Part 6 Timeframes" section of this consultation for the reduced timeframes that NewPower is proposing and justification for these reduced timeframes.
5. Suggests that if the connection meets a given threshold to be deemed 'complex' then additional extensions and longer timeframes should apply.
6. Would like the Authority to release average statistics on how long the DG / load process took for different sizes of DG / load plant. This would be extremely useful data to assess performance of distributors and to identify pain points of the Part 6 process. It would be useful if the Authority asked for historical data from distributors as well as the ongoing requirement for data proposed.
7. Would like the thresholds for medium load and DG to be increased and also to align with each other. See NewPower's arguments for this in Appendix 1.
8. Advises the Authority to look at ways of preventing distributors using network studies as a means to delay the connection process. See further commentary on this in this submission.
9. Asks the Authority to consider potential conflicts of interest when it comes to distributors prioritising distributed generation projects in their queue. Many distributors are becoming distributed generators and are likely to have their own projects in their queue.
10. Believes distributed generation should be able to make the decision to utilise the regulated terms immediately after a final connection application is approved, rather than waiting for a certain negotiating timeframe. This would save 30 business days of negotiation.
11. Believes that the Authority should mandate that distributors inform distributed generators if their generation project will or is likely to have any benefit to the distributor's network (i.e. in terms of any Avoided Cost of Distribution (ACOD) or potential to provide Non-Network Services/Solutions (NNS)). NewPower has found a general reluctance from distributors to engage DER for ACOD or NNS and asks the Authority to help encourage distributors to utilise DER if it is more economic to do so than "poles and wires".
12. Believes that the proposed changes don't give load / DG investors enough surety of capacity rights, given that DG / load investors will be investing the capital. NewPower understands that capacity 'banking' is unwanted, but provided the load / DG investor has all the right intentions and is not wasting time they should be guaranteed the capacity rights. The proposed queuing methodology means that there is always a risk of losing capacity, this is further discussed in this submission in Appendix 1.

13. Would like to know how the Authority suggest prioritising load vs generation applications in distributor's queues? As these are connection types competing for the same distributor resources in the connection process, but also for connection building resources. Also, there is potential for EV charging stations to "clog" up the connection queue, how will these be prioritised against other types of connections in the queues (i.e. DG)?
14. Supports the requirement on distributors publishing capacity data for their network. NewPower believes this will increase efficiency and reduce workload on distributors when it comes to answering queries.
15. Further to the point above NewPower supports the requirement to mandate distributors publishing data on the connections pipeline. This will help parties looking to connect DG / load to know where available capacity might be and where the connection queue is shorter than other areas.
16. NewPower is willing to work with the EA and any working groups to provide our knowledge and experience of the Part 6 process. This could be to help determine details like connection complexity levels, connection queuing principals, process timeframes, and operating policies etc.

NewPower welcomes discussion with the Authority on any points in our submission that the Authority would like further clarification or information.

Yours Sincerely,

[Redacted Signature]

[Redacted Title]

[Redacted Address Line 1]

[Redacted Address Line 2]

## NewPower's Experience of the DG Connection Process (Part 6)

NewPower and Infratec have experienced going through the Part 6 connection process with several different distributors. The experience with each distributor varies (sometimes significantly) in terms of process, timeliness, and distributor resourcing / capability.

Below is a list of some of the main pain points from our experience of the Part 6 process with distributors:

- **Network studies**
  - Network studies are often a significant part of the process in terms of cost and time. NewPower believes there is more efficiency that can be found here.
  - NewPower has experienced distributors requirements for studies changing during the connection process (sometimes well after the initial studies have been done) and this has resulted in delays and more re-work for consultants (paid for by connection applicants). This has seemed at times like a tactic for lengthening the DG process timeframe.
  - NewPower has had trouble obtaining the scope for studies from distributors in a timely manner, which has delayed consultant engagement.
  - NewPower has experienced significant variation in the number of studies and scope of these studies for different generation projects of similar sizes (in NewPower's view the study requirements should have been very similar or the same). NewPower suggests there is more standardisation of required studies for different sizes / complexities of projects.
- **Connection standards / operating limitations**
  - NewPower has found distributors are beginning to align their DG connection standard to have conservative voltage limits (typically +/-2%), which can significantly limit DG generation. NewPower notes that distributors have regulatory low voltage limits of +/-6% and there was a recent MBIE consultation looking to increase these limits to +/-10% to enable more generation and load. NewPower asks the Authority to look at regulating voltage limits distributors apply to generators on higher voltages in distributors networks (11kV, 33 kV etc) to unlock more generation. Currently this is not regulated and is left up to the distributors to determine.
  - As well as mandating conservative voltage limitations, distributors will often enforce strict power factor requirements which limit the generators' ability to use reactive power to control the voltage at the point of connection further exacerbating the issue.
- **Connection agreements**
  - Negotiation is often lengthy.
  - The power dynamic is very much in favour of the distributor being the monopoly. Also, the distributed generator wants to keep a good relationship with the distributor due to the ongoing relationship over the generation asset lifetime.
- **Distributor resourcing for connection application processing**
  - In NewPower's experience distributors are generally under resourced for dealing with the volume of connection applications they are receiving. This causes delays for parties that wish to connect.
  - Distributors generally use the same engineering resource for their network and connection applications. So, there is competing tension for these resources.

- We have often experienced distributors take a significant amount of time to review studies, provide scopes, and make decisions.
- **Distributor conservatism**
  - In NewPower's experience distributors are often conservative when it comes to distributed generation. This likely stems from distributors being used to single direction power flows supplying predominantly load.
  - This conservatism often results in distributors not being willing to offer the full capacity that is available. This will result in inefficient outcomes with more generation plants being needed to be built to power New Zealand's electrification.
  - Distributors often specify capacity on the worst-case scenario (e.g. lowest surrounding demand levels and line conductors at maximum temperature), rather than adopting a dynamic capacity rating that can vary with season or time of day for instance.

## Part 6 Timeframes

As can be seen in Table 1 below the maximum number of days as proposed by the Authority before a final application decision can be made is as follows; Process 2 - 290 business days and Process 3 - 350 to 405 business days. In NewPower's view these timeframes are far too long, especially for distributed generation near the lower threshold of the process (i.e. 11 kW for Process 2 and 301 kW for Process 3).

Typically, generation plant below 1MW won't require grid studies, so the maximum number of weeks for an 11-kW generation plant is 34 weeks (~9 months) and for a 301 kW generation plant the maximum number of weeks will be the same. As projects of these size can be constructed and generating in 1-2 months, waiting for ~9 months for approval from a distributor is disproportionate and will slow generation build. Also, one distributor indicated to NewPower the full connection process for a distributed generation project less than 1 MW would typically be around 6 weeks (assuming no complications), which is vastly different to the typical maximum timeframe proposed of 34 weeks.

NewPower has suggested new timeframes for the processes in Table 1 below, where the proposed / existing timeframes are in black and the NewPower suggested timeframes are in blue. Also note that the table shows the NewPower suggested thresholds as well, these are discussed further in the submission. NewPower has suggested reduced timeframes and believe that these timeframes are realistic and are just a matter of having appropriate distributor resources and tools to manage these. Some of the major differences in timeframes suggested are as follows:

- Significant reduction in timeframes for Process 2, as in NewPower's view it should be a relatively easy exercise for distributors to determine if the DG can connect for this size of DG (i.e. is there capacity?, is the network strong enough at that location for the type of DG?, and are there not any voltage issues at the location?). There should be minimal studies for DG of this size.
- NewPower suggests that the timeframe for distributors providing information is reduced to 10 business days (2 weeks) across the board. The reason for this is that distributors should have an efficient process for gathering the information and a templated report. Other than that, it comes down to resourcing levels to meet the volume of connection applications.
- Reduce the number of extensions distributors can receive from two to one and reduce the extension timeframe to 20 business days. In NewPower's view extensions are only likely to be used when there is lack of resource. If the connection is really complex, then there should be a separate extension provided the distributor can demonstrate why the connection is complex.
- Reduce the timeframe of decision for final application for Process 2 and reduce the timeframes for decision on interim application for Process 3. The reason for this is that by the time of interim/final application the distributor should have all the information required to make a decision and would have been familiar with that information from being involved in the connection process for that project and approving the Initial application. We recognise that the complexity of the decision goes up as plant size increases so have increased the decision timeframe as size increases.
- Have removed extensions for grid studies for Process 2. In NewPower's view no project of this size should ever be doing grid studies.

- For Process 3 we have removed the extension after final application and reduced the timeframe of decision on final application. The reason for this is that the Authority has proposed the Interim application as the main decision point for Process 3 and for the final application to be a rubber-stamping exercise, therefore the timeframes should reflect this.

Table 1: Part 6 Timeframes Authority Proposed vs NewPower Proposed

APPENDIX 2			APPENDIX 3 <del>300</del> 1000kW or more						
Application Step	<10100kW and <1000kW		<del>Less than 1MW</del>		Greater than 1MW and less than 5MW		5 MW and above		Application Step
	Business Days	Cum	<del>Business Days</del>	<del>Cum</del>	Business Days	Cum	Business Days	Cum	
Lodge Initial Application									Lodge Initial Application
Distributor notifies Initial Application is complete	5 (c.2(5))	5	5	5	5	5	5	5	Distributor notifies Initial Application is complete
Information to be provided by Distributor	<del>30</del> 10 (c.3)	<del>35</del> 15	<del>30</del> (c.3)	35	<del>30</del> 10 (c.3)	<del>35</del> 15	<del>30</del> 10 (c.3)	<del>35</del> 15	Information to be provided by Distributor
Information that can be requested by DG	10 (c.4)	<del>45</del> 25	<del>10</del> (c.4)	45	10 (c.4)	<del>45</del> 25	10 (c.4)	<del>45</del> 25	Information that can be requested by DG
DG lodges completed Initial Application	Discretionary time determined by DG		Discretionary time determined by DG						DG lodges completed Initial Application
Distributor's decision on Initial Application	Within <del>40</del> 10 BD (c.6)	<del>85</del> 35	<del>Within 40 BD</del> (c.6)	85	Within <del>40</del> 15 BD (c.6)	<del>85</del> 40	Within <del>40</del> 20 BD (c.6)	<del>85</del> 45	Distributor's decision on Initial Application
DG lodges Final Application			Discretionary time determined by DG						DG lodges Interim Application
Distributor's decision on Final Application	No later than <del>45</del> 10 BD (c.11)	<del>130</del> 45	<del>No later than 45 BD</del> (c.10(1)(a))	130	No later than <del>60</del> 20 BD (c.10(1)(b))	<del>145</del> 60	No later than <del>80</del> 30 BD (c.10(1)(c))	<del>165</del> 75	Distributor's decision on Interim Application

Distributor can seek <del>2</del> <sup>1</sup> extensions	Max <del>40</del> <sup>20</sup> BD each (c.11(3), (6))	<del>210</del> <sup>65</sup>		Max <del>40</del> <sup>20</sup> BD (c.10(2), (5))	<del>210</del>	Max <del>40</del> <sup>20</sup> BD (c.10(2), (5))	<del>225</del> <sup>80</sup>	Max <del>40</del> <sup>20</sup> BD (c.10(2), (5))	<del>245</del> <sup>95</sup>	Distributor can seek 2 extensions
Grid studies required; can seek additional 2 extensions	Max <del>40</del> <sup>20</sup> BD each (c.11(4), (6))	<del>290</del>		Max <del>40</del> <sup>20</sup> BD (c.10(3), (5))	<del>290</del>	Max 40 BD (c.10(3), (5))	<del>305</del> <sup>160</sup>	Max 40 BD (c.10(3), (5))	<del>325</del> <sup>175</sup>	Grid studies required; can seek additional 2 extensions
Business Days before Final Decision notified		<del>290</del> <sup>65</sup> BD <del>58</del> <sup>13</sup> weeks			<del>290</del> <sup>BD</sup> 58 weeks		<del>305</del> <sup>160</sup> BD <del>61</del> <sup>32</sup> weeks		<del>325</del> <sup>175</sup> BD <del>65</del> <sup>35</sup> weeks	Business Days before <b>Interim</b> Application decision notified
				Discretionary time determined by DG						DG lodges Final Application
				Max <del>40</del> <sup>20</sup> BD (c.16(2), (4))	<del>330</del> <sup>BD</sup>	Max <del>40</del> <sup>20</sup> BD (c.16(2), (4))	<del>345</del> <sup>BD</sup>	Max <del>40</del> <sup>20</sup> BD (c.16(2), (4))	<del>365</del> <sup>BD</sup>	Distributor can seek 1 extension before making Final Decision
				Max <del>20</del> <sup>10</sup> BD (c.16(1)(a))	<del>350</del> <sup>BD</sup>	Max <del>30</del> <sup>10</sup> BD (c.16(1)(b))	<del>375</del> <sup>170</sup> BD	Max <del>40</del> <sup>10</sup> BD (c.16(1)(c))	<del>405</del> <sup>185</sup> BD	Distributor's decision on Final Application
					<del>70</del> <sup>weeks</sup>		<del>75</del> <sup>34</sup> weeks		<del>81</del> <sup>37</sup> weeks	<b>Maximum weeks for Final Decision</b>



## Appendix 1: NewPower's response to the consultation questions

Questions	Comments
Q1. Do you agree the issues identified by the Authority are worthy of attention?	NewPower agrees that the issues identified are worthy of attention and we believe that these are critical issues to solve to unlock and accelerate electrification of the New Zealand economy.
Q2. Do you agree with the objectives of the proposed amendment? If not, why not?	Yes, NewPower agrees with the objectives outlined in the proposed amendment.
Q3. Do you agree the benefits of the proposed amendment outweigh its costs? If not, why not?	NewPower could not find any real cost benefit analysis in the consultation paper, but NewPower agrees that the benefits do very likely outweigh the costs. The reason is that connecting generation / load more efficiently and faster will benefit the New Zealand economy significantly.
Q4. Do you agree the proposed amendments are preferable to the other options? If you disagree, please explain your preferred option in terms consistent with the Authority's statutory objectives in sections 15 and 16 of the Electricity Industry Act 2010.	<p>NewPower thinks that many of the other options listed are not mutually exclusive to the options being proposed.</p> <p>Below is a list of options that NewPower believes could also be implemented or should be considered further:</p> <ul style="list-style-type: none"> <li>• NewPower suggests that if a maximum timeframe for the whole process is not implemented then the Authority must be sure that all avenues of potential delay by a distributor is covered (i.e. new network studies scope and revisions).</li> <li>• NewPower likes the idea of a 'complex application' and suggests that the Authority reframes this to have different standard timeframes for 'non-complex applications' and allow extensions / longer timeframes for 'complex applications'. As the Authority's proposed timeframes for the processes are based on a worst-case scenario basis and NewPower thinks these timeframes should be reduced significantly for 'non-complex applications' as these timeframes set expectations.</li> <li>• NewPower thinks that the Authority should put details in the Code covering at the very least the principals of how distributors should prioritise distributed generation and load connection applications. This will ensure that the outcomes envisioned by this prioritisation are more likely to be achieved.</li> </ul>
Q5. Do you agree the Authority's proposed amendments comply with section 32(1) of the Act?	NewPower believes that this is for the Authority and government to determine.

<b>Proposal A questions: Amend the application processes for larger-capacity DG applications</b>	
A) What are your thoughts on the proposal to replace nameplate capacity with maximum export power?	NewPower agrees with the change. Maximum export power is what distributors should be concerned about. Generation controllers are typically able to monitor and limit power being injected into the distributors network.
B) Do you support the proposed Process 2 for medium DG (>10kW and <300kW), including the proposed requirements and timeframes? What are your thoughts on the proposed size threshold? What other changes would you make to the medium DG application process, if any?	<p><b>General Process</b></p> <p>NewPower thinks that the general process makes sense, but has the following recommendations:</p> <ul style="list-style-type: none"> <li>• NewPower recommends that the Authority adds more safeguards for the distributed generator when it comes to network studies. For example: <ul style="list-style-type: none"> <li>○ Mandating the distributor must provide the scope for studies / agreeing to the scope of studies within a given timeframe</li> <li>○ Ensuring that the distributor can't unreasonably expand the scope of studies or add additional studies later in the process. This can be used as a delay tactic.</li> <li>○ Also, for Process 2 NewPower would expect there to be very minimal network studies required and would recommend the Authority put something in the Code to cover this.</li> </ul> </li> <li>• NewPower also recommends that the Authority allows distributed generators to specify defaulting to regulatory terms immediately after final application acceptance rather than waiting for the elapsed 30-day negotiating timeframe after final application acceptance</li> </ul> <p><b>Power Thresholds for Medium DG</b></p> <p>NewPower believes that both the lower and upper threshold should be raised. NewPower believes that the lower threshold should be raised to 100 kW and that the upper threshold for Process 2 should be raised to 1 MW, for the following reasons:</p> <ul style="list-style-type: none"> <li>• Having the same process and timeframes for a 301-kW generator and a 20 MW generator isn't logical. Also, this puts generators with common quality requirements and generators without common quality requirements in the same process.</li> <li>• Having an upper threshold of 1 MW will allow more volume of DER to be constructed quickly and be able to provide market and network services. Having sufficient DER to help address</li> </ul>

	<p>network constraints and issues will be a key part of the solution for networks to enable more load on their networks.</p> <ul style="list-style-type: none"> <li>• Having an upper threshold of 1 MW will also reduce the amount of administration for the distributors (i.e. less applications in Process 3)</li> <li>• Also, EV chargers for heavy transport will likely be around 1 MW and once the roll out of electric heavy transport starts it will take off fast. These EV chargers are likely to be co-located with a BESS in the order of 1 MW, which can be used to power the EV charger, but also export to the network.</li> <li>• The lower threshold should also be raised to allow large residential and small commercial connections to be able to utilise Process 1 of Part 6. EDBs should be able to do quick simulations to determine if there are any issues of connecting generation below 100 kW.</li> <li>• Also, the Authority has somewhat based the thresholds on the size distribution of connection applications from previous years. NewPower argues that the thresholds should be based on the distribution of sizes of applications that are likely to come in the next 10 years.</li> <li>• Increasing the lower threshold for medium DG will reduce the amount of admin for distributors with more DG falling under the small DG category.</li> <li>• NewPower questions why the thresholds for medium load don't match the thresholds for medium DG. Noting NewPower thinks the thresholds for medium load should increase as well as per our comments ( &gt;100 kW and &lt;1MW).</li> <li>• The Authority states that the competition for capacity gets larger after 300 kW and provides no evidence to support this statement.</li> </ul> <p><b>Timeframes for Medium DG</b></p> <p>NewPower agrees with having binding timeframes to ensure there are no unreasonable delays in the process.</p> <p>NewPower thinks that the initial application approval timeframe for distributors should be reduced for all Processes to 10 business days, provided the application is complete and there are no obvious significant issues.</p> <p>The timeframes for Process 2 are far too long. Below is a list of reasons why:</p>
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	<ul style="list-style-type: none"> <li>• An example of why these timeframes is too large is that a large residential solar system with maximum export power of 11 kW could take close to a year or even over a year to get final approval. This is unacceptable.</li> <li>• A distributor stated to NewPower that a 100-200 kW project would typically take 6-8 weeks for final approval. Also building a project of this size would only take 1-2 months and a total connection approval timeframe of over a year is too long in comparison to the build time.</li> <li>• Timeframes need to be more aggressive to ensure that distributors resource adequately and improve / refine their processes.</li> <li>• We question whether the proposed specified timeframes are going to improve the timeframes for connecting. What data does the EA have on average timeframes for different sizes of projects to get through the connection process? Will these proposed timeframes shorten the duration?</li> <li>• NewPower believes that the approval timeframes on initial applications should be significantly reduced from the proposed 40-business days assuming the applicant has provided all the information required in the Code</li> <li>• Timeframes are based on the most complex applications, should the timeframes not be for standard applications and complex applications are what extensions are for?</li> <li>• See section “Part 6 Timeframes” above for further discussion on timeframes.</li> </ul> <p>NewPower agrees that there should be limits on the number of extensions that distributors can have on approval timeframes. Also, extensions should only be for a technical reason or lack of information, not for lack of resource.</p> <p>Also, NewPower thinks that the approval timeframes should be shortened as specified in section “Part 6 Timeframes” of this submission.</p>
<p>C) Do you support the proposed Process 3 for large DG applications (<math>\geq 300\text{kW}</math>), including the proposed requirements and timeframes? What are your thoughts on the proposed size thresholds? What other changes would you make to the large DG application process, if any?</p>	<p>As above we think that the threshold for large DG applications should be 1 MW and above. For reasons also stated as above.</p> <p>NewPower agrees that re-submission of large generation applications should be allowed. Often studies can reveal that there is more or less capacity that first thought or new information is discovered. Being able to adjust and re-submit an application will reduce admin and uncertainty for distributed generators.</p>

	<p>NewPower believes that approval at the Interim stage for large DG is beneficial as it will prevent distributors from delaying approval to the final application (which NewPower has experienced).</p> <p><b>Timeframes</b></p> <ul style="list-style-type: none"> <li>• In NewPower's view 40 business days to approve a completed initial application is too far long. If the application has all the information and a quick capacity check on the network shows, there is capacity the initial application should be approved. NewPower believes this should be reduced as per section "Part 6 Timeframes" above.</li> <li>• We question why there are different timeframes for processing a final application for different sizes, given that the Authority has stated that the final application is now more of a rubber-stamping process. In NewPower's view it should be 10-business days for final application processing for all sizes.</li> </ul>
D) Do you think the Authority should apply any of the proposed changes for large DG to medium DG applications also?	NewPower suggests potentially adding the ability to re-submit medium DG applications as specified for large DG applications.
E) What are your thoughts on industry developing the detailed policies to complement the Code changes proposed in this paper?	<p>NewPower's thoughts on industry developing the detailed policies are as follows:</p> <ul style="list-style-type: none"> <li>• The ENA is a networks association. There is a natural conflict of interest between network companies and independent DG / load investors. So any working group for developing these policies must be independent of a pure distributor view.</li> <li>• Also, many networks are looking to also build DG, so there is a further conflict of interest between networks and independent DG investors.</li> <li>• NewPower suggests that Industry does help to support developing policies, but that the Authority oversees this to manage conflicts of interest and to ensure fair outcomes. Also to ensure that all stakeholders are consulted, and decision making is independent.</li> <li>• NewPower raises the question of how and who will determine the value to consumers when prioritising DG / load connections against each other? Will the Authority be involved in this or will the distributor be left to manage the determining of value. NewPower suggests that the method of valuation / evaluation is specified in the code.</li> <li>• Timeframe for finalising these policies should be clear as DG / load applicants do not have certainty until later what these policies might be.</li> </ul>

<p>F) What are your thoughts on the Authority's summary of capacity rights allocation?</p>	<p>A10 section response:</p> <ul style="list-style-type: none"> <li>• NewPower agrees that capacity “banking” isn’t ideal and must be addressed. <b>NewPower would like to raise to the Authority that it feels like a lot of capacity in distribution networks is already “banked”.</b></li> <li>• NewPower sees a potential issue with approving final application after Project Investment Decision (PID) (or providing only 30 days with indication of capacity) as most banks / funders will require surety of the capacity being secured before releasing the funding of a project – enabling a PID.</li> <li>• NewPower thinks that the Authority needs to provide more surety of capacity rights for DG / load, as the proposed changes mean that a connection is always in the queue even after final application is approved. NewPower maintains that if an DG / load investor is not wasting time and taking the required steps to realise the load / DG then it should have the capacity guaranteed for a period of time (say 18 months). The reason for this is that investors will be putting their capital up and more likely to invest when risks are minimised.</li> </ul> <p>A11 section response:</p> <ul style="list-style-type: none"> <li>• NewPower is supportive of the change. In NewPower’s view the competing DG should work together to share capacity, rather than a stalemate where neither go ahead.</li> <li>• On the reverting back to the competitive conditions there could be a conflict of interest where the distributor is the owner of one of the DG projects in competition.</li> </ul>
<p><b>Proposal B questions: Add application processes for larger-capacity load</b></p>	
<p>G) For Process 3 for medium load (&gt;69kVA and &lt;300kVA) applications:</p> <ul style="list-style-type: none"> <li>• Do you support the proposed process and why?</li> </ul>	<p><b>Power Thresholds for Medium Loads</b></p> <ul style="list-style-type: none"> <li>• NewPower questions why the Authority has proposed different thresholds for medium load and medium generation.</li> <li>• As mentioned previously, when there is large scale adoption of electric vehicles for heavy transport there is going to be a large volume of EV charger applications for just below 1 MW. If these applications fall into the large load category this is going to slow down adoption of electrified heavy transport.</li> </ul>

<ul style="list-style-type: none"> <li>What are your thoughts on the proposed requirements, size thresholds and timeframes?</li> </ul> <p>What changes would you make to the medium-load application process, if any?</p>	<p>The thresholds for generation and load in the same 'size' category should be the same.</p> <p>The timeframes for load should be the same as DG. Also note that NewPower has suggested shortened timeframes than proposed by the Authority.</p>
<p>H) For Process 5 for large load (<math>\geq 300\text{kVA}</math>) applications:</p> <ul style="list-style-type: none"> <li>Do you support the proposed process and why?</li> <li>What are your thoughts on the proposed requirements, size thresholds and timeframes?</li> </ul> <p>What changes would you make to the large load application process, if any?</p>	<p>The thresholds for generation and load in the same 'size' category should be the same. As NewPower has argued for the threshold for large DG to be 1 MW, we think the threshold should be 1 MW as for large load.</p> <p>The timeframes for load should be the same as DG. Also note that NewPower has suggested shortened timeframes than proposed by the Authority.</p>
<p>I) Do you think the Authority should apply any of the proposed changes for large load to medium-load applications also? If so, which ones and why?</p>	<p>No comment</p>
<p>J) What are your thoughts on the Authority's summary of capacity rights allocation?</p>	<p>See comments / answers in the DG section for the same question.</p>
<p>K) What else does the Authority need to consider beyond the proposals in this paper and why?</p>	<p>See comments / answers in the DG section and rest of the submission.</p>
<p><b>Proposal C questions: Require distributors to publish a 'network connections pipeline' for large-capacity DG and load, and provide information on this pipeline to the Authority</b></p>	
<p>L) Do you support the proposed network connections pipeline, why, why not? What changes</p>	<p>Yes, NewPower supports having a network connections pipeline. It will definitely help investors understand without much effort where they should look to install more generation, so less developer / investor time will be wasted. The publishing requirement will also reduce the burden on</p>

would you make, if any? What are your thoughts on the scope of the information to be published?	<p>distributor resources as DG / load investors can get initial information publicly without having to email the distributor.</p> <p>NewPower suggests that the information that the distributors must publish should be detailed enough for DG / load investors to understand the approximate available capacity at the site they are investigating. This would likely require the distributors to publish the available capacity down to the feeder level or at least the zone substation level.</p>
M) What are your thoughts on the proposal for distributors to provide information directly to the Authority on an ongoing basis?	<p>NewPower is supportive of this. This will allow the Authority to have an accurate overall picture of how much future generation / load is in the pipeline for all of New Zealand. This can then be published in a report which will be useful for all of the industry.</p> <p>Note that perhaps the Authority should get the pipelines with all projects (even ones below the medium load/DG threshold to get a picture of the actual total pipeline).</p>
<b>Proposal D questions: Require distributors to provide more information on network capacity</b>	
N) What do you think of the proposal to publish more information on network capacity? What challenges do you see with providing the data? What changes would you make, if any?	<p>NewPower is supportive of this. It will increase transparency and also free up distributor resource from having to respond to capacity queries all the time.</p> <p>NewPower advises the Authority to mandate providing a range of network capacities (i.e. Summer, Winter etc) as often distributors will only provide the most conservative capacity. Also, NewPower advises the Authority to start looking at mandating distributors to use dynamic operating envelopes for DG and load to get better utilisation of distributors networks (i.e. load and DG can use the capacity available to them at the time).</p> <p>Distributors, the Authority, and the Commerce Commission should be looking to use this data to determine opportunities for non-network solutions to distribution issues for a more economical solution. For example, using DER to address peak loading on a network rather than upgrading transformers and power lines. If distributors aren't utilising the resources available to them, the Authority and Commerce Commission should be asking why.</p>
O) What are your thoughts on the scope and granularity of the information to be published?	<p>NewPower thinks that the Authority should look at mandating that this data is available geospatially. This is the easiest way for this data to be used by entities looking at available load / DG capacity in distribution network. Perhaps the Authority should mandate this for distributors over a certain size.</p>



	NewPower notes that PowerCo has a good example of a geospatial online tool that details generation capacity.
<b>Proposal E questions: Update the regulated terms for DG</b>	
P) What are your thoughts on the proposed changes to the regulated terms?	<ul style="list-style-type: none"> <li>• NewPower advises the Authority to add a technical appendix to the regulated terms with standard voltage and power factor limitations and other standard operating parameters. The reason for this is that NewPower has found these technical parameters to be a large point of contention with distributors when negotiating connection agreements. Also, in NewPower's experience distributors will try and enforce conservative voltage limitations (i.e. +/- 2%) on distributed generators which can often restrict power output.</li> <li>• Connection agreements need a clause to make them easily transferable / able to be novated <ul style="list-style-type: none"> <li>○ Often one developer will develop a DG project to a shovel ready state and then sell the project.</li> <li>○ Or perhaps the connection application process itself needs to be transferable / able to be novated instead, if Project Investment Decision (PID) is to be mandatory for final approval under Process 3.</li> </ul> </li> <li>• NewPower is concerned and doesn't understand the intent of clause 3(7) of Schedule 6.2. If there is a breach of power quality obligations should the impact not first be assessed? Is this the power quality obligations set in the distributors own policies or set in the Code? <ul style="list-style-type: none"> <li>○ NewPower also doesn't understand the intent of clause 3(7)(b). Is this trying to state that reactive power should only be at a level to control the voltage at the point of connection as agreed with the distributor? What if there is another requirement for additional reactive power in the Code, then there would have to be a network services agreement to enable the DG to follow the code (i.e. AOPOs)</li> </ul> </li> </ul>
<b>Proposal F questions: Add regulated and prescribed terms for load applications and amend dispute resolution requirements</b>	
Q) What are your thoughts on the proposed regulated and prescribed terms for load? What changes would you make, if any?	NewPower is supportive of having regulated terms for load. Having regulated terms helps to balance the power between the natural monopoly of a distributor and gives the applicant another option.

R) What are your views on the proposed dispute resolution changes for Part 6? In what ways could dispute resolution be further improved? What are your thoughts on the alternative options to deliver dispute resolution discussed in this paper? Do you have any feedback on the 20-business day timeframe proposed?	Not comment.
S) Do you consider the alternative contractual terms option discussed in this paper (and in the Distribution connection pricing consultation paper) would be better than the proposal without contractual terms? What are your thoughts on the other alternative options referred to?	No comment.
<b>Proposal G questions: Increase record-keeping requirements for distributors</b>	
T) Do you support the proposal to increase the record-keeping requirements for distributors and why? What changes would you make, if any?	<p>Yes, NewPower supports the proposal to increase record keeping requirements. The main reasons for this are:</p> <ul style="list-style-type: none"> <li>• It will provide transparency of the number of connection applications in different areas, providing more clarity and transparency for investors in new load and DG</li> <li>• It will also allow the Authority to monitor the performance of distributors in regard to average timeframes for different distributors to get applications through each stage of the process.</li> </ul> <p>NewPower suggests that the Authority extends its monitoring to all processes (not just Process 3 &amp; 5).</p> <p>NewPower also suggests that distributors should provide start and end dates for each stage in the process for each project. This will help the Authority to determine on average how long projects spend in each stage. This analysis would help to produce KPIs to encourage better connection process efficiency by distributors and highlight pain points in the process.</p>
<b>Proposal H questions: Introduce new Part 1 definitions and amend existing definitions (Part 1 only)</b>	

U) What are your thoughts on the proposed new definitions and amended definitions for Part 1 of the Code? What changes would you make, if any?	<p>NewPower has not undertaken a full legal review of the new proposed definition, but in general thinks they are appropriate. NewPower only has two comments regarding to potential tweaks:</p> <ul style="list-style-type: none"> <li>• Load definition – should the load definition state “connection capacity more than 69 kVA” rather than “consumes more than 69 kVA”. As some load connections may go for a connection capacity more than 69 kVA and then ramp up their load in phases (i.e. not consuming more than 69 kVA initially).</li> <li>• Also, NewPower would like to highlight that there is a risk of distributors using policies and standards to their own benefit and as such limiting distributed generation unnecessarily. How does the Authority propose to manage this?</li> </ul>
V) What other terms do you think the Authority should define and what definitions do you propose for those terms?	The Authority may need to define some new terms if some of the suggestions NewPower has made in this submission are utilised.
<b>Proposal I question: Make minor and incidental amendments to Part 6</b>	
W) What are your thoughts on the proposed minor and incidental changes to Part 6? What minor and incidental changes has the Authority missed and what changes would you make, if any?	NewPower has not performed a full legal review of the proposed code changes. But given that these are minor and or incidental NewPower has no comment.
<b>Transitional arrangement questions</b>	
X) What are your thoughts on the transitional arrangements for the proposals in this paper? Submitters can consider individual proposals when responding to this question.	NewPower would prefer for the changes to be applied to the Code sooner rather than later to enable faster electrification of New Zealand’s economy.
Y) What proposals do you consider the most important? How long do you think is needed to implement these?	<p>NewPower considers the following changes the most important:</p> <ul style="list-style-type: none"> <li>• Adding auto approvals from distributors if the approval timeframes elapse</li> <li>• Adding the requirements on distributors to publish capacity data</li> </ul>

	<ul style="list-style-type: none"> <li>Reducing connection process timeframes (not proposed by the Authority, but in NewPower's view is urgently needed)</li> </ul> <p>Ensuring that there are no other areas of potential delay that the proposed Code doesn't already capture, such as network studies delays already mentioned in this submission.</p>
<b>Code drafting question</b>	
Z) Do you have comment on the Authority's drafting of the proposed Code changes? What changes would you make, if any?	NewPower has not performed a legal review on the proposed code changes. As such NewPower has no comment in regard to changes to the specific drafting other than changes and new ideas already mentioned in this submission.