

3 April 2025

Submissions
Electricity Authority
P O Box 10041
Wellington

Via email: distribution.pricing@ea.govt.nz

Dear team,

Re: Consultation Paper— [Distributed Generation Pricing Principles](#)

NewPower Energy Services Ltd (NESL) appreciates the opportunity to make this submission on the Electricity Authority's (Authority) consultation on Distributed Generation Pricing Principles ("DGPP").

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 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 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 across New Zealand for both NEL (4MW Naumai solar farm in Northland) and customers, with an additional 60MW currently under construction.

Key points in our submission

In summary:

1. NewPower believes the Authority should economically value the use of Distributed Generation (DG) to avoid large capacity upgrade costs from both distributors and Transpower (and reduce electricity losses). In NewPower's view this economic benefit will be significant and should be considered in the context of DG pricing signals. DG can minimise both distribution and grid upgrades in a landscape of increasing electricity demand and large projected capacity upgrade costs from distributors and Transpower. Also, DG is typically located closer to electricity demand, which reduces electrical losses compared to electricity being supplied over long distances. With the context above, we make the following subpoints which appear to show potentially conflicting points of view from the Authority on DG:

- a. The context and information provided above are contrary to the Authority's statement in this issues paper: *"increasing the risk of incentivising excessive investment in DG, which would raise consumers' costs of electricity supply by: (i) favouring investment in DG over grid-connected generation"*.
 - b. NewPower believes DG should be incentivised / favoured. The Authority seems to agree with this and has proposed¹ a regulatory intervention to *"encourage more and faster investment in new electricity generation"* owned by mass market consumers. *"When consumers with rooftop solar and other types of small-scale electricity generation supply surplus energy into the electricity network at peak times, this significantly benefits New Zealand's electricity system"*. Given this sentiment from the Authority all types of DG should be incentivised.
2. NewPower believes that DG should not have to bear the cost of transmission, especially if the distributed generator does not use the transmission grid to transport electricity.
3. NewPower strongly advises the Authority to make distributed generation injection rebates available to all distributed generation and not just consumers with distributed generation. The reason for this is there should be efficient distribution pricing signals for all distributed generation. In NewPower's experience distributors seem to ignore calculating Avoided Cost of Distribution (ACOD) in their connection process. Thus, an injection rebate would allow at least some distributed generation services to be valued.
4. NewPower believes the Authority should look at better defining ACOD in the DGPPs. With the purpose of making it clearer to distributors on what benefits they should be attributing to the distributed generation. In NewPower's experience not much if any focus is given to ACOD by distributors in the connection process.
 - a. NewPower asks the Authority to look at why there are so few distributors paying ACOD to distributed generators.
5. These proposed changes to the DGPPs will cause uncertainty for distributed generation investors, particular in what the ongoing costs for distributed generation will be. This may cause delays in financial close of distributed generation projects or even cause investors to walk away from projects.

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

Yours Sincerely,



David Barnett
CEO
NewPower Energy Services Ltd

¹ See Energy Competition Taskforce [consultation paper](#) on 'Requiring distributors to pay a rebate when consumers supply electricity at peak times'

Appendix 1: NewPower's response to the consultation questions

Questions	Comments
Q1. Do you have a view on the definition of incremental cost that is contained in the Code? Should it be more tightly defined to include only network costs and to exclude consequential costs relating to factors such as frequency keeping and voltage support? Would this lead to more timely generation build and lower energy costs?	<p>In NewPower's view the definition of incremental costs is defined well in the Code and does not need changing.</p> <p>DG is required to provide frequency keeping services if larger than the 30 MW threshold in the Code (the Authority is looking at lowering this threshold). Also, in NewPower's experience DG will be required by the distributor to provide voltage support by the distributor (via connection standards and connection agreements). In providing these frequency and voltage related services DG will already incur a cost to do so, therefore NewPower does not see any reason to include any further frequency keeping or voltage support related costs for DG.</p> <p>In NewPower's view adding additional costs to DG will slow down generation build and increase energy costs. The rationale behind this is that it is faster to obtain a connection and build DG than grid connected generation. Also, DG can avoid the costs of both distribution and grid capacity upgrades, which will lower overall energy costs for consumers.</p>
Q2. Do you agree with the problems with the incremental cost limit identified in this section? Why or why not? Do you have a view on the relative importance of the problems identified?	<p>Distributed generators pay fewer costs than grid-connected generators</p> <p>NewPower disputes the perceived risk of DG having higher economic costs, as the economic benefit of having DG, which can avoid both distribution and transmission capacity upgrades and reduce electricity losses needs to be considered.</p> <p>Investors in new assets are discouraged from accommodating future demand</p> <p>Any rational DG investor would jump at the possibility of sharing connection costs. The main issues NewPower sees here is the certainty of the future demand for distribution capacity and who should bear the additional capital cost and risk of stranded capacity.</p> <p>Current incremental cost limit stands in the way of efficient arrangements</p> <p>NewPower agrees with the Authority's point here and would be open to changes to allow more cost sharing of connection costs. For example, removing the 60-month timeframe.</p> <p>The one-size-fits-all cost-sharing formula may discourage efficiency</p>

	<p>NewPower agrees that cost sharing shouldn't be based on maximum generation but should rather be based on usage (i.e. energy).</p> <p>The incremental cost limit yields weak incentives to dedicate resources to DG</p> <p>NewPower understands the Authority's point here. The DGPPs do not restrict distributors recovering the incremental cost of processing connection applications via a connection application fee.</p> <p>The incremental cost limit creates other impediments to efficient pricing</p> <p>NewPower believes that for efficient distribution pricing to be realised the Authority must ensure that it not only focuses on the costs, but also on the benefits that DG provides, which must be valued and rewarded.</p>
Q3. Do you agree circumstances have changed significantly since the DGPPs were introduced, including that there are now far fewer impediments to DG than in the early 2000s?	The amount of DG being built has increased, but this does not necessarily mean the DGPPs need to change substantially or change at all.
Q4. Do you agree with the assessment of the current situation and implications of incremental cost pricing? If not, why not? What if any other significant factors should the Authority be considering?	The Authority should be considering that DG is perfectly placed to avoid large projected capacity upgrade costs for both distributors and transmission (Transpower). This can be achieved by incentivising DG to generate at peak-times. Peak times for distribution will largely be at the same time as peak times in the transmission network. NewPower believes the economic benefits of this will be significant and encourages the Authority to quantify this economic benefit.
Q5. Do you agree these are the appropriate options to consider?	Unsure why option 4 is required if modifying the DGPPs can address the issues. Also given this is the first time the Authority has consulted on the perceived issues, option 2 should be just to modify the issues the Authority still thinks is relevant after commentary on these from industry.
Q6. Are there other options the Authority should consider for improving rules about costs that can be recovered from distributed generators?	<p>NewPower suggests that along with focusing on costs that can be recovered from DG, the Authority should also focus on better defining of Avoided Cost of Distribution (ACOD) to include:</p> <ul style="list-style-type: none"> • Deferral or avoidance of capacity upgrades • Increased reliability (back-up supply in outages / N-1 supply) • Better voltage regulation • Reduced operational spend (i.e. reduced tap changer operations)

Q7. Will new aggregator business models emerge to solve the problem?	Only with the right incentives, which includes the Authority incentivising DG through the Code.
Q8. Are distribution price signals alternative to, or complementary to contracting?	<p>In NewPower's view providing injection price signals is the best way to incentivise DG to provide generation at peak times. NewPower has responded to numerous RFPs for non-network services and has not seen any of these come to reality.</p> <p>In NewPower's view mandating contracting between DG and distributors would not be efficient and would lead to worse outcomes (i.e. increasing connection timeframes or significantly decreasing the amount of DG being built).</p>
Q9. Which, if any of the above options, do you consider would best support efficient pricing for recovery of distribution costs from DG?	NewPower would prefer either no changes to the DGPPs or minimal changes to the existing DGPPs (option 1 or 2). Only these options are consistent with NewPower's views that DG should be incentivised to provide the most economical solution to increasing electricity demand for reasons stated previously in this document.
<p>Q10. Do you agree with the Authority's tentative view on a solution? In particular:</p> <ul style="list-style-type: none"> • Should efficient price signals be sent through a revised set of pricing principles? • Would voluntary guidelines or mandating through the Code be the best approach? • Should we rely on the distribution pricing principles outside the Code or codified new pricing principles for DG? Why? 	<p>Do you agree with the Authority's tentative view on a solution?</p> <p>No, having guidelines outside the Code for distributors to follow will create uncertainty for investors in DG. Also, it will likely create inconsistent outcomes when connecting to different distributors, as these guidelines won't be mandatory.</p> <p>Should efficient price signals be sent through a revised set of pricing principles?</p> <p>Efficient price signals can be sent through either pricing principles or a prescriptive pricing methodology. The current DGPPs already provide efficient price signals.</p> <p>Would voluntary guidelines or mandating through the Code be the best approach?</p> <p>In NewPower's view mandating through the Code is the best approach. This is because it gives investors in DG certainty on how distributors will price any ongoing costs for DG.</p>

	<p>Should we rely on the distribution pricing principles outside the Code or codified new pricing principles for DG? Why?</p> <p>In NewPower's view mandating through the Code is the best approach.</p>
<p>Q11. Are there any unintended consequences from removing the existing DGPPs?</p> <ul style="list-style-type: none"> • Do you agree with the risks we have identified, and our assessment of them? • Do you think there are any other risks we should consider associated with the removal of the DGPPs? • Do you have any information that would allow the Authority to better assess such risks? 	<p>Are there any unintended consequences from removing the existing DGPPs?</p> <p>An unintended consequence would be creating uncertainty for DG investors. Any DG business case until the new DGPPs and pricing regime is finalised would not have a clear view on what the operating costs of the DG would be. This may cause delays in financial close or even result in investors walking away from projects or the New Zealand market.</p> <p>Do you agree with the risks we have identified, and our assessment of them?</p> <p>In regard to the risk around ACOD payments to DG, NewPower suggests the risk from distributors receiving an ACOD service but not paying for it is already realised – the Authority highlights that only two distributors paying ACOD (and to related parties).</p> <p>Also having multiple revenue streams for any generator is key to financial viability and reduces the nodal energy price required for the generator to be financially viable.</p> <p>NewPower also thinks the Authority's mitigation of monitoring outcomes with regards to distributors not paying rebates to DG, could lead to bad unintended outcomes as by the time the monitoring has picked up something is wrong the damage may have already been done.</p> <p>Do you think there are any other risks we should consider associated with the removal of the DGPPs?</p> <p>The Authority has not identified investor confidence as a risk. This issues paper will raise uncertainty and concerns for any potential investor in DG, especially as the Authority has signalled that it prefers Grid connected generation over DG.</p> <p>Also, further to the risk discussed above has the Authority considered the risk of slowing / reducing investment in DG and what this might do to overall electricity prices for consumers?</p> <p>NewPower believes the Authority needs to assess the economic risk of disincentivising DG and not having sufficient DG to defer or avoid large capacity upgrades in distribution and transmission assets. This risk is not talked about anywhere in the consultation.</p> <p>Do you have any information that would allow the Authority to better assess such risks?</p>

	<p>NewPower thinks the Authority should model what the effect of increased operating costs will do for financial viability of a distributed generator and the impact that will have on electricity prices for consumers.</p>
<p>Q12. Do you agree market and regulatory settings provide efficient incentives for DG reducing or avoiding transmission costs? What, if any, other significant factors or options should the Authority consider?</p>	<p>No, the current market and regulatory settings do not provide efficient incentives for DG to reliably reduce or avoid transmission costs. There is no market or regulatory incentive for DG to be reliable enough to be considered viable by Transpower as non-transmission alternative.</p> <p>In NewPower's view the key to deferring / avoiding large distribution and transmission capacity upgrades is to develop a new methodology where peak time generation is either highly incentivised or overly contracted to ensure that there is enough reliability (i.e. if one DG trips there is enough capacity to still provide the peak shaving service).</p>