

29 November 2024

Submissions
Electricity Authority
P O Box 10041
Wellington

Via email: OperationsConsult@ea.govt.nz

Dear team,

Re: Consultation Paper— [Update to scarcity pricing settings](#)

NewPower Energy Services Ltd (NESL) appreciates the opportunity to make this submission on the Electricity Authority's (Authority) consultation on proposed updates to scarcity pricing settings in New Zealand's electricity market.

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 as scarcity prices help to provide price signals to encourage investment in generation and flexibility. These price signals are one of the considerations when NewPower is looking to invest in more generation capacity.

Key points in our submission

In summary:

1. NewPower agrees that the scarcity settings do need updating to provide the correct price signals.
2. NewPower recommends that the Authority updates scarcity settings / prices more often to ensure that the values are reflective of current actual value.
3. NewPower disagrees with the proposed reserve scarcity price settings and believes that the price values should be increased proportionally in line with the increases to energy scarcity pricing. The justification for this is that not increasing the reserve scarcity pricing proportionally indicates that the Authority doesn't value system security as much as it once did and will mean system security is reduced earlier / more often in the future.
4. NewPower believes that the counterfactual of FIR scarcity pricing of \$7,500/MWh and SIR scarcity pricing of \$7,000/MWh should be implemented to increase reserves scarcity pricing proportional to the increase in energy scarcity pricing. This is also a signal to investors in batteries for which reserves is a key revenue stream, and the Authority has stated in its consultation that it wants to encourage industry to invest in batteries.

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

Yours Sincerely,



Darren O'Neill
Product Development Manager
NewPower Energy Services Ltd

Appendix 1: NewPower's response to the consultation questions

Questions	Comments
<p>Q1. Do you support the proposal to raise energy scarcity prices? Please explain your answer.</p>	<p>Yes. The value of lost load has increased and therefore scarcity prices should increase.</p> <p>NewPower recommends that scarcity pricing is reviewed and increased on a regular basis – and more frequently than 14 years - to ensure there is appropriate price signals for generation and flexibility investments.</p>
<p>Q2. Do you support the proposal to set energy scarcity prices at values consistent with 2018 VoLL (\$17,000/MWh, \$25,000/MWh and \$40,000/MWh)? Please explain your answer.</p>	<p>It seems sensible – but this assumes the 2018 VoLL calculations were sound.</p>
<p>Q3. Do you support the proposal to reduce the number of reserve scarcity prices from three tranches to one tranche? Please explain your answer.</p>	<p>While it does reduce market complexity, shouldn't the value of reserve scarcity go up as system security reduces? What are the potential implications of removing the tranches?</p> <p>NewPower feels that this might have negative effects in certain scenarios. NewPower suggests the Authority provides further justification beyond 'reducing market complexity'.</p>
<p>Q4. Do you support the proposal to set reserve scarcity prices at \$4,000/MWh for FIR and \$3,500/MWh for SIR? Please explain your answer.</p>	<p>No. The value of reserve scarcity is not being increased proportionally to how energy scarcity is being increased. This would suggest that the Authority values system security less than it did in 2011 (time of last scarcity price setting). The value of lost energy has increased significantly since 2011 and the probability of a large system event at a time of scarcity is either the same or higher as in 2011 (due to aging generation fleets), so why would reserves scarcity value not increase to account for the probability weighted cost of a large system event occurring taking out a large portion of the grid?</p> <p>To put this in perspective: energy scarcity prices have increased ~70% compared with little to no increase to reserve pricing. The 70% increase should also apply to reserve pricing unless the Authority is willing to run the Grid with less security in scarcity events than it found acceptable in 2011. NewPower's point of view is that Authority should value security at least as much as it did in 2011. Increasing the reserve scarcity pricing in line with the increase to energy scarcity pricing gives \$7,650/MWh for FIR and \$6,800/MWh for SIR (using the band 3 pricing). These increased reserve scarcity prices still prioritise a reduction of system security before reducing demand.</p>

	<p>The value of energy and reserve scarcity prices proposed by the Authority would mean that system security would be reduced far earlier in the offer stack than the current settings. This could lead to bad publicity for the Authority if a system event was to occur at a time of scarcity, as NewPower believes that the implied increased appetite for reduced system security doesn't reflect consumer expectations.</p> <p>Just because historical reserve price offers haven't been over \$2,495/MWh doesn't mean the value of reserve scarcity shouldn't increase. The value should be based off the actual value of reduced security during scarcity events. As more and more BESS enter the reserve market the offer prices are likely to increase, and the scarcity prices shouldn't be set on historical offers as these scarcity settings are to be used for the future and to send the correct price signals.</p> <p>The Authority has stated "Scarcity prices provide important signals. These are: long term: for industry participants to invest in flexible capacity such as demand response, batteries and fast-start generation". A key revenue stream for batteries is reserves, so not increasing the reserve scarcity prices in line with energy scarcity prices will make it less economically attractive to invest in batteries.</p> <p>Also, these proposed reserve scarcity prices don't solve the issue presented in "Scenario 3: High priced offers relative to reserve scarcity" which is one of the issues the Authority stated it is looking to solve.</p>
<p>Q5. Do you support the proposal to raise the price of controllable load to \$16,000/MWh? Please explain your answer.</p>	<p>The value seems sensible.</p>
<p>Q6. Do you have any comments on the drafting of the proposed amendment?</p>	<p>No additional comments other than what has already been mentioned in the rest of this document.</p>
<p>Q7. Do you agree the proposed amendment is preferable to the other options? If you disagree, please explain your preferred option in terms consistent with the Authority's statutory main objective in section 15 of the Electricity Industry Act 2010.</p>	<p>Not for reserves scarcity prices. The alternative of FIR scarcity price of \$7,500/MWh and SIR scarcity price of \$7,000/MWh should be used, as these values better reflect the actual value of reduced system security.</p>
<p>Q8. Do you agree with the analysis presented in this Regulatory Statement? If not, why not?</p>	<p>No comment.</p>