19th August 2025
Submissions
Electricity Authority
P O Box 10041
Wellington

Via email: fsr@ea.govt.nz

Dear team,

Re: Consultation Paper - The future operation of New Zealand's power system – Issues and high-level options

Tēnā koutou,

NewPower Energy Services Ltd (NewPower) appreciates the opportunity to make this submission on the Electricity Authority's consultation on the future operation of New Zealand's power system and the potential Distribution System Operator (DSO) models.

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 118 MW of utility-scale solar farms connected to distribution networks across New Zealand for both NEL and customers, with an additional 80 MW currently under construction.

NewPower is agnostic as to which specific model is ultimately selected. We acknowledge that the Hybrid model is being favoured in key overseas markets, and we also recognise that an Independent DSO model could bring innovation and a fresh approach, being unconstrained by legacy systems and able to be constructed from the ground up. Our position is that the selected model should work as effectively as possible for all participants in the sector, from the smallest DER operator to the TSO.

In considering the way forward, we see the following areas as critical to delivering a fair, efficient, and future-proof DSO framework:

Neutrality

The introduction of DSO's should maintain neutrality between the participants in the markets, so one group does not gain an unfair advantage against the others, which can reduce competition and stifle innovation.

Not all types of DER operate in the same manner, or can provide all of the same services, and not all DER have the same freedom to operate within their network constraints. While this creates issues and more complications for running the distribution network, the process still needs to be fair to all DER.

Standardisation

Whichever model is adopted, DSO processes, data formats, and operational interfaces should be as standardised as much as possible across EDB territories. This would simplify the interface for DER operators, aggregators, and the TSO, with tangible benefits in reduced connection times, lower integration costs, and improved service delivery.

Software Development

The DSO role will require sophisticated IT platforms to manage network visibility, coordinate DER, and interface with the TSO, retailers, and flexibility providers. Developing and maintaining such systems across multiple DSOs, each with their own requirements and vendors, carries significant risks and cost escalation. Careful planning, governance, and where possible shared or interoperable solutions will be essential to avoid the pitfalls often seen in large, multi-party IT programmes.

Market Creation

Transitioning to active distribution management opens opportunities for new markets, such as voltage support, peak demand reduction, and reactive power provision. These markets should be accessible to all providers on equal terms, with transparent rules that prevent skewing in favour of DSO-owned assets. Aggregation and virtual power plants will need explicit consideration: these interact differently with the TSO (where less granular data is needed) compared with the DSO (where local constraints matter greatly). Processes must allow both levels of interaction without creating conflicting instructions or market barriers.

Speed of Implementation

The energy transition is required to happen at speed, and the implementation of the chosen DSO model should not materially slow down this rate of change. The growth in the distribution systems of DER and the decarbonisation efforts (transportation and process heat) give rise to new opportunities and approaches to network management. Ensuring successful outcomes for New Zealand's consumers requires these technologies are not slowed down and are allowed to reach their potential without limits being falsely imposed.

NewPower supports an outcome where the chosen model enables innovation, fair participation, and reliable, efficient operation for the benefit of New Zealand, it's consumers and the electricity system as a whole.

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