

<b>Submitter</b>	<b>Lightyears Solar</b>
Questions	Comments
Q1. Do you consider section 3 to be an accurate summary of the existing arrangements for power system operation in New Zealand? Please give reasons if you do not agree.	Yes, however we question if there should be a section for connected customers such as large industrials with embedded HV networks, EV charging operators, small utility scale generators, and virtual power plant (VPP) operators. These are captured as DER in the 'future' in paragraph 3.71 but are in existence today. Should they be listed under 'Asset Owners'?"
Q2. Do you agree that we have captured the key drivers of change in New Zealand's power system operation? Please give reasons if you do not agree.	An important aspect that is not noted is consumer behaviour (including industrial) that will drive energy purchasing decisions as businesses choose to (or are mandated to) reduce Scope 2 emissions.
Q3. Do you have any feedback on our description of each key driver?	No feedback.
Q4. What do you consider will be most helpful to increase coordination in system operation? Please provide reasons for your answer.	<p>Network planners plan for the 'peak' scenario, however common communication protocols, along with open sharing of generation and load information would enable network companies and other participants to learn from and make more informed decisions regarding power system operation and investment.</p> <p>DOE's will be helpful to increase network utilisation (and defer network upgrades), along with allowing network control rooms to have some degree of operational control over DER's.</p>
Q5. Looking at overseas jurisdictions, what developments in future system operation are relevant and useful for New Zealand? Please provide reasons for your answer.	No feedback.
Q6. Do you consider existing power system obligations are compatible with the uptake of DER and IBR-based generation? Please provide reasons for your answer.	<p>Currently it is working, however in the 5-10 year horizon, changes to technical operating requirements such as voltage envelopes and equipment standards would allow for increased distribution network utilisation.</p> <p>Changes to requirements around DER information sharing would enable distribution operators and SO better visibility of downstream networks.</p> <p>Changes to SO coordination with distributors and large distribution connected customers (load and generation) would enable a more flexible and responsive power system operation.</p>
Q7. Do you consider we need an increased level of coordination of	Paragraph 5.40 suggests that greater coordination between transmission operators and distribution

<p>network planning, investment and operations across the New Zealand power system? Please provide reasons for your answer.</p>	<p>operators would be beneficial, however we don't see evidence of a lack of coordination between Transpower and distribution companies.</p> <p>Investments in new generation and load are often kept secretive for commercial and public opposition reasons, however advance notice of these developments to network operators would be beneficial for optimal network planning, as would large council planning decisions such as re-zoning or urban development. Likewise sharing of future network constraints and upgrade plans would enable more efficient investment decisions by generators and load, noting these are already disclosed in Asset Management Plans.</p> <p>We are not convinced that creating another body such as a FSO would achieve better coordination between existing participants.</p>
<p>Do you think there are significant conflicts of interests for industry participants with concurrent roles in network ownership, network operation and network planning? Please provide reasons for your answer.</p>	<p>In our experience there have not been <i>significant</i> conflicts of interest in network operators, and where there are conflicts of interest, these have been identified and handled well. We do question the ability for network companies to construct and operate generation assets within their own networks, given the knowledge advantage the network company has over an external party.</p>
<p>Q9. Do you have any further views on whether this is a good time for the Authority to assess future system operation in New Zealand, and whether there are other challenges or opportunities that we have not covered adequately in this paper? Please provide reasons for your answer.</p>	<p>This is a good time to assess future operation as we believe changes will happen more rapidly than anticipated.</p>