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National Security Group

By Email: infrastructureresilience@dpmc.govt.nz

The Lines Company (TLC) – Submission on Discussion Paper “Strengthening the Resilience of Aotearoa New Zealand Critical Infrastructure System”.

1. Introduction:

- 1.1 TLC thanks the Department of the Prime Minister and Cabinet (DPMC) for this opportunity to submit on the Discussion Paper - Strengthening the Resilience of Aotearoa New Zealand Critical Infrastructure System.
- 1.2 TLC acknowledges that the purpose of this paper is to seek views on the need to reform the existing regulatory approach to delivering a resilient critical infrastructure system in order to create a more secure platform for sustainable, inclusive, and productive growth in the future and to enhance resilience of critical infrastructure by establishing a:
 - common definition as to what counts as critical infrastructure and a framework for identifying which are most critical.
 - shared understanding of the hazards and threats affecting critical infrastructure systems; and
 - co-ordinated approach to the management of risk across the infrastructure system which accounts for the growing dependencies and interdependencies between individual infrastructures.
- 1.3 TLC notes that the paper poses a number of questions, the answers to which are designed to provide feedback to inform subsequent consultation to explore in more detail those options identified for enhancing infrastructure resilience to all hazards and threats.
- 1.4 TLC focuses its submission on those questions posed which TLC believes are relevant to TLC’s infrastructure system and consumer-base and advises that our submission does not contain confidential information and as such the DPMC is welcome to publish our submission in full on its website.

2. Prelude: Questions and Answers

2.1 [Does more need to be done to improve the resilience of New Zealand’s critical infrastructure system?](#)

Yes, however TLC notes that any approach will need to be comprehensively co-ordinated between relevant local Councils and other appropriate authorities, EDB’s, Transpower, Waka Kotahi, NEMA (National Emergency Management Agency) and so on.

For non-government entities like local Council and EDB’s, TLC advises that caution should be exercised to reduce any costs associated with improving resilience of critical infrastructure being passed on to rate payers and consumers alike, and an appropriate price-quality path applied based upon the region’s socio-economic demographic that reflects the specific requirements of the community.

2.2 [Have you had direct experience of critical infrastructure failures, and if so, how has this affected you?](#)

Yes, TLC has experienced widespread network infrastructure failure during major weather events such as Cyclone Gabrielle and other lower category storms that have detrimentally affected our consumers. Road closures and the severity of the damage on power lines and network infrastructure exacerbated this issue and resulted in delays in TLC's response and recovery operations.

2.3 [How would you expect a resilient critical infrastructure system to perform during adverse events?](#)

TLC notes that as it is expected that parts of any critical infrastructure system will inevitably fail, it is important that those parts that would have an immediate and direct impact on human life should be robust and the infrastructure system have enough built-in redundancy to support and enable recovery to take place promptly, based on priority. Again, affected entities will need to coordinate their efforts and support the recovery of the most critical parts of the infrastructure with priority focussed on the provision of potable water supply, access to emergency health care, and so on.

2.4 [Would you be willing to pay higher prices for a more resilient and reliable critical infrastructure system?](#)

As the reasonable costs associated with the provision of an EDB's infrastructure system is passed on to consumers under the Commerce Commission's DPP process, the consumers are already paying to maintain the existing infrastructure. In lower socio-economic districts, energy hardship is already a harsh reality. TLC recommends that any additional costs to consumers and ratepayers should be very carefully considered. It is noted that although few would argue against a more resilient and reliable critical infrastructure system, the ability to pay for these improvements will be an issue across many parts of the country.

2.5 [The work programme's objective is to enhance the resilience of New Zealand's critical infrastructure system to all hazards and threats, with the intent of protecting New Zealand's wellbeing, and supporting sustainable and inclusive growth. Do you agree with these objectives? If not, what changes would you propose?](#)

TLC agrees with the objectives, however, recommends that the word "affordable" should be included in the narrative.

2.6 [Do you agreed with the proposed criteria for assessing reform options? If not, what changes you would propose?](#)

TLC agrees with the criterion proposed for assessing reform options, however recommends that particular focus be placed upon the resulting burden of increased costs associated with the implementation of these reform options for EDB's, their consumers and the community as a whole.

3. **Section 1: Background - Questions and Answers**

3.1 [The paper discussed four megatrends: i\) climate change, ii\) a more complex geopolitical and national security environment, iii\) economic fragmentation, and iv\) the advent and rapid uptake of new technologies. Do you think these pose significant threats to infrastructure resilience?](#)

Yes, TLC agrees that all four megatrends pose significant risk to an EDB's network infrastructure system as well as the future development of their network. TLC notes that megatrends **i)** climate change and **iv)** the advent and rapid uptake of new technologies will have the largest potential impact on electricity network infrastructure, whether said infrastructure pertains to generation, distribution or transmission.

- 3.2 Are there additional megatrends that are also important that we haven't mentioned? If so, please provide details.

TLC submits that changes in labour and unemployment, coupled with immigration issues, have created challenges in finding the appropriate human resources to respond to major events. As a result, many entities have become reliant on the same, and relatively small resource pool in order to respond to and assist with recovery processes and procedures.

- 3.3 Do you think we have described the financial implications of enhancing resilience accurately? If not, what have we missed?

No. TLC submits that although we agree that replacing aged infrastructure assets with new, modern assets is of benefit to EDB's (given they can be designed in a way that is cognisant with changes in the environment and the noted four mega trends), this however does not detract from the long-term issue of associated cost. Any new infrastructure and infrastructure systems implemented will require ongoing technical maintenance and with the rapid changes in technology, any technological changes will require more frequent intervention and therefore the costs associated with ensuring a safe and secure continuance of supply will be significantly increased. This is especially true for any computerised or electronic device or system that will require increased testing, maintenance, inspections, new H&S requirements etc which will result in a significant increase in costs going forward.

4. Section 2: Potential barriers to infrastructure resilience - Questions and Answers

- 4.1 How important do you think it is for the resilience of New Zealand's infrastructure system to have a greater shared understanding of hazards and threats?

TLC submits that a greater shared understanding of hazards and threats is very important. As mentioned earlier, entities such as local Councils, EDB's, NEMA, Transpower, and NIWA could collaborate together to share all relevant information and data, proposed processes and procedures and potentially the associated costs. This will not only save costs with respect to the gathering and analysis of information and data for the making of subsequent decisions but also could prevent entities from facilitating individualized 'improvements' that may be of detrimental effect to other entities or result in increased costs.

- 4.2 If you are a critical infrastructure owner or operator, what additional information do you think would best support you to improve your resilience?

TLC notes that in-depth information and analysis relating to the anticipated impact of climate change and natural hazards such as earthquakes, etc would be greatly appreciated in assisting forecasting investment expenditure and in the planning and implementation of recovery process & procedures. Information from NEMA on the specific strategies and plans for particular districts and/or regions linking in with strategies and plans from the various local Councils in those areas would be of great value.

- 4.3 What do you think the Government should do to enable greater information sharing with, and between, critical infrastructure owners and operators?

TLC notes that this would be dependent upon the particular resilience risk being addressed, however suggests that NEMA could play a more central role in bringing critical infrastructure entities together in a specific region/district during an emergency. TLC further notes that NEMA could also be enabled to establish stronger links with the appropriate regulatory bodies to plan and coordinate resilience measures and establish processes and procedures as to how to effectively apportion the associated costs across the various entities.

4.4 Would you support the government having the ability to set, and enforce, minimum resilience standards across the entire infrastructure system? If so:

- what type of standard would you support (eg. requirement to adhere to a specific process or satisfy a set of principles)?

No. TLC supports the proposal set out in the ENA's submission on the same in that if any standards are to be imposed, then it is preferable that said standards be 'principle-based' rather than an assignment of a specific process or method and that the associated costs will need to be carefully considered and accounted for in DPP processes for non-exempt EDBs. As such, TLC recommends that any standards be left to the relevant industry to coordinate, with the development of any industry specific standard to be based on 'principles' set down by the Government.

- do you have a view on how potential minimum resilience standards could best complement existing approaches to risk management?

TLC notes that further thought and assessment is required to be undertaken prior to providing any comment with respect to this question and have no specific recommendations at this stage.

4.5 Would you support the government investing in a model to assess the significance of a critical infrastructure asset, and using that as the basis for imposing more stringent resilience requirements? If so:

- what options would you like the government to consider for delivering on this objective?
- what criteria would you use to determine a critical infrastructure asset's importance?

No. As stated earlier, TLC recommends that the implementation of any industry standards be left to the relevant industry to develop rather than any such standards being developed and imposed by the Government.

4.6 Do you think there is a need for the government to have greater powers to provide direction or intervene in the management of significant national security threats against a critical infrastructure? If so:

- what type of powers should the government consider?

TLC notes that any intervention required is likely to be rife with industry specific complexities. Any government entity tasked with such powers would need to be extremely well informed and able to fully understand and take cognisance of all existing regulations and market forces (inter-country and external) that may have an impact on resilience performance for the particular industry over which they are exercising power. It is nigh impossible for any such agency to have a complete and comprehensive understanding of all matters pertaining to, as well as an understanding on the resulting impact on, a particular industry (including any quantification of the associated costs). TLC recommends that the government's time and money would be best spend on providing the necessary supports for the industry to develop and implement their own processes and procedures.

- what protections would you like to see around the use of such powers to ensure that they were only used as a last resort, where necessary?

TLC recommends that no such powers should exist in the first instance, the rationale being that any benefit associated with the implementation of any such powers would be ultimately outweighed by the associated cost to the New Zealand public to facilitate the use of such powers.

4.7 Do you think there is a need for a government agency or agencies to have clear responsibility for the resilience of New Zealand's critical infrastructure system? If so:

- do you consider that new regulatory functions should be the responsibility of separate agencies, or a single agency?
- do you consider that an existing entity should assume these functions or that they should be vested in a new entity?
- how do you see the role of a potential system regulator relative to sectoral regulators?

TLC supports the option of empowering a single entity to take responsibility for maintaining the resilience of New Zealand's critical infrastructure system. TLC suggests that NEMA could potentially be tasked with the responsibility for the provision of the required assistance. TLC notes that in the event that these functions are to be split between different entities, there is a risk that any coordination between the entities and the various industries will be lost.

TLC further notes its support for the ENA submission in that, in the event an industry specific entity is empowered to facilitate this function, the Commerce Commission (who currently have the lead role in assessing and approving price-quality trade-offs on behalf of consumers), is to have the responsibility for the maintaining resilience for the sectors they currently regulate however TLC suggests that this responsibility should be facilitated in conjunction with other non-Commerce Commission entities as well such as local Councils, and so on.

4.8 Do you think there is a need for compliance and enforcement mechanisms (eg. mandatory reporting, penalties, offences) to ensure that critical infrastructure operators are meeting potential minimum standards? If so:

- do you consider that these should be applied to the entity, to the entity's directors/executive leadership, or a mix of the two, and why?

No. As stated earlier, TLC recommends that the any compliance and enforcement mechanisms be at the behest of the industry standards developed by the relevant industry rather than any such mechanisms being enforced to a centrally developed standard by the Government.

Yours Faithfully,

The Lines Company

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