Datacom - *Web form submission*

Critical Infrastructure Resilience

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Are you responding as an individual or on behalf of an organisation?

Individual, Datacom

Do you consent for your submission (including identifying information) to be published and shared in lines with terms for this public consultation?

Yes.

Do you consent for your submission (including identifying information) to be published and shared in lines with terms for this public consultation? - Please note what should be withheld and for what reasons.

[Nil]

Does more need to be done to improve the resilience of New Zealand's critical infrastructure system?

I think more needs to be done in two main areas. Collaboration and coordination, and redundancy and backup systems.
Strengthening collaboration between government agencies, private sector entities, and communities is vital for effective infrastructure resilience. Establishing communication channels, sharing information and resources, conducting joint exercises or drills, and coordinating response plans can enhance preparedness and response capabilities across NZ's CI.
Creating redundant systems and backup plans can help ensure continuity in the face of disruptions. This includes backup power systems, redundant communication networks, and redundant data storage and recovery mechanisms.

Have you had direct experience of critical infrastructure failures, and if so, how has this affected you?

In the realm of cybersecurity, I have witnessed the impact of critical infrastructure failures on both a personal and societal level. Cyberattacks targeting critical infrastructure systems can have far-reaching consequences, affecting not only individuals but also the functioning of entire communities. I have experienced the consequences of a cybersecurity breach in the context of critical infrastructure. Having personally witnessed the aftermath of the WannaCry attack on the NHS, I can attest to the devastating impact of such a cyber assault on essential services.

How would you expect a resilient critical infrastructure system to perform during adverse events?

A resilient critical infrastructure system should perform in a manner that minimises the impact of adverse events and maintains essential services to the greatest extent possible. A resilient system should prioritise the continuity of essential services, should have mechanisms in place to enable a

prompt response to events, incorporate redundancy and backup systems, and should demonstrate flexibility and adaptability. additionally, effective communication and coordination among all stakeholders involved will inspire public trust and confidence during adverse events.

Would you be willing to pay higher prices for a more resilient and reliable critical infrastructure system?

While it's natural to be concerned about the financial implications, we must also weigh the long-term benefits and the potential costs of not investing in resilience. In situations where critical infrastructure failures occur, the consequences can be far-reaching and impact our daily lives, safety, and overall well-being. Such failures can disrupt essential services, compromise public health, hinder economic activities, and even jeopardise lives during emergencies. The resulting costs, both in terms of financial impact and human suffering, can be significant. So, to answer the question, yes, I would be willing to consider paying higher prices if it means investing in a more resilient and reliable critical infrastructure system. However, it is crucial that the costs are reasonable, the investments are well-managed, and the benefits are evident to justify the financial burden placed on individuals and businesses.

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?

I strongly support the objectives of enhancing the resilience of New Zealand's critical infrastructure system to protect wellbeing and support sustainable and inclusive growth. It is a crucial investment in our present and future, and by working collectively towards these goals, we can create a safer, more secure, and prosperous New Zealand for all.

Do you agreed with the proposed criteria for assessing reform options? If not, what changes you would propose?

The proposed criteria for assessing reform options appear to be comprehensive and logical. However, I would like to propose one consideration. I believe it is essential to explicitly include long-term sustainability. Sustainability encompasses not only economic viability but also environmental and social considerations. Including sustainability recognises the importance of ensuring that the reform options not only address immediate resilience needs but also contribute to the long-term well-being of New Zealand's communities and environment.

Do you think the megatrends outlined pose significant threats to infrastructure resilience?

I believe the outlined megatrends pose significant threats to infrastructure resilience.

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

Certainly!
Megatrend #5: Demographic Shifts

Changes in population demographics, such as aging populations, urbanisation, and migration patterns, can have implications for CI resilience. These shifts can impact the demand for services, strain existing infrastructure capacities, and require adjustments in the delivery of essential services to meet the needs of diverse and growing populations.

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

While the financial implications of enhancing resilience have been mentioned, there needs to be more indications of upfront investments, ongoing maintenance costs, sector-specific variations, and potential financial benefits that arise from resilient infrastructure. By taking these factors into account, we can gain a more comprehensive understanding of the financial implications associated with enhancing resilience in critical infrastructure systems.

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?

It is of paramount importance for the resilience of New Zealand's infrastructure system. It enables informed decision-making, targeted investments, effective risk mitigation, collaboration, and transparency. By fostering this shared understanding, we can enhance the resilience of our critical infrastructure, better safeguarding our communities and ensuring the long-term sustainability and well-being of our nation.

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

1. Best practices and case studies
2. Detailed hazard and threat assessments
3. Vulnerability assessments
4. Funding and resource availability

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

To enable greater information sharing with and between critical infrastructure owners and operators, the government should take several important steps:
1. Develop clear guidelines and standards
2. Establish a secure and trusted information sharing platform
3. Foster a culture of trust and collaboration
4. Provide incentives and support
5. Foster public-private partnerships

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

Absolutely, I would wholeheartedly support the government having the ability to set and enforce minimum resilience standards across the entire infrastructure system. Establishing such standards is essential to ensure the robustness and reliability of our critical infrastructure in the face of various hazards and threats.

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?

Yes, I would support the government investing in a model to assess the significance of a critical infrastructure assets.
1. Adaptable framework
2. Risk-based approach
3. Incentives and support
4. Compliance monitoring and enforcement

What criteria would you use to determine a critical infrastructure asset's importance? Investing in a model to assess a critical infrastructure asset's criticality, and using that as the basis for imposing resilience requirements that are more stringent on particularly sensitive assets?

The criteria for determining a critical infrastructure asset's importance should include:
1. Essential services
2. Societal impact
3. Economic significance
4. National security implications
5. Interdependencies

To deliver on the objectives, the government could consider the following options:
1. Multi-dimensional assessment either self-assessment or audit driven assessment

In the New Zealand context, population density and geographic coverage should be considered in the asset's coverage of densely populated areas or its role in providing services to remote and isolated regions can highlight its criticality in terms of societal impact and equitable service provision.

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? - Is there a need for greater powers? If so, what type of powers should the government consider? 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?

Absolutely, given the deteriorating national security environment and the potential risks to critical infrastructure, it is crucial for the government to have enhanced powers to address these threats effectively. While it's important to balance security concerns with individual liberties and privacy rights, certain powers may be necessary to protect the nation's critical infrastructure and ensure the safety and well-being of its citizens.
In terms of the powers, the government should be empowered to coordinate and lead the response

efforts during significant national security threats. This includes establishing clear protocols for communication, information sharing, and collaboration between government agencies, critical infrastructure owners and operators, and relevant stakeholders.

Protections around these powers should include:

1. Clear legal frameworks
2. Oversight and review mechanisms
3. Protection of individual information
4. Proportional use

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

Yes, I strongly believe that there is a need for a government agency or agencies to have clear responsibility for the resilience of New Zealand's critical infrastructure system. Such an agency would play a vital role in developing, implementing, and enforcing policies and standards to enhance the resilience of the system.

Separate agencies or a single agency. Both options have their merits and considerations. Having separate agencies responsible for different sectors can provide a specialized and tailored approach to regulation, ensuring a deep understanding of sector-specific challenges and requirements. On the other hand, a single agency can provide a centralised and holistic perspective, facilitating consistent standards and coordination across sectors.

Regarding whether an existing entity should assume these functions or if a new entity should be established, depends upon the existing capabilities, expertise, and resources within the government. If there is an entity that already possesses relevant knowledge and experience in critical infrastructure management, it should have already assumed these additional responsibilities.

In terms of the role of a potential system regulator relative to sectoral regulators, there should be a balance between the two. While sectoral regulators can focus on specific industries and address sector-specific challenges, a system regulator would have a broader perspective and responsibility for overseeing the overall resilience of the critical infrastructure system. The system regulator would work in collaboration with sectoral regulators, ensuring coordination, consistency, and adherence to the overarching resilience standards and policies.

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?

Yes, there is a definite need for compliance and enforcement mechanisms to ensure that critical infrastructure operators are meeting potential minimum standards. Such mechanisms are crucial in promoting accountability, incentivising compliance, and maintaining the desired level of resilience across the critical infrastructure system.

In terms of applying these mechanisms, I believe a mix of approaches would be appropriate. It is important to hold the entity itself accountable for meeting the minimum standards as they are ultimately responsible for the operation and management of the critical infrastructure. Imposing penalties or other enforcement measures on the entity itself can create a financial and reputational deterrent, motivating them to prioritise and invest in resilience.

Additionally, considering accountability at the leadership level is also essential. Holding directors and executive leadership responsible can help foster a culture of responsibility and ensure that decision-makers are fully aware of their role in ensuring the resilience of critical infrastructure. By establishing individual liability, it creates a personal stake for executives, encouraging them to prioritise and invest in resilience measures.

It is worth noting that the enforcement mechanisms should be proportionate and fair, taking into account the complexity and nature of critical infrastructure operations across New Zealand. The penalties or sanctions should be structured to provide both a deterrent effect and an opportunity for remediation and improvement.

What additional comments do you have?

Enhancing the resilience of New Zealand's critical infrastructure is of utmost importance. The barriers identified highlight the key challenges that need to be addressed in order to achieve this goal.

To overcome these barriers and the additional factor I wish to highlight in sustainability, it is crucial for the government to take proactive measures. This includes establishing a dedicated agency or agencies with clear responsibility for the resilience of the critical infrastructure. This agency should have the authority to set and enforce minimum standards, conduct assessments, and monitor compliance. Additionally, compliance and enforcement mechanisms, such as mandatory reporting, penalties, and offenses, should be in place to ensure that critical infrastructure operators meet the established standards. Collaboration between the government, critical infrastructure owners and operators, sectoral regulators, and other stakeholders is essential. Information sharing, coordination, and alignment of efforts will contribute to a more resilient and reliable New Zealand. It is also important to consider the evolving landscape, including the identified megatrends and I feel that population demographics shifts should also be factored into the development of resilience strategies and standards.

Ultimately, investing in the resilience of New Zealand's critical infrastructure is an investment in the nation's security, well-being, and sustainable growth. By addressing the barriers, establishing clear responsibilities, and implementing effective regulatory frameworks, we can enhance the resilience of our critical infrastructure and ensure the continued provision of essential services to the people of New Zealand.