



Response to the
Department of the Prime Minister and Cabinet

Critical Infrastructure Phase 1 Consultation

August 2023

1. Introduction
 - 1.1. Air New Zealand welcomes the opportunity to respond to the Department of the Prime Minister and Cabinet's (DPMC) Discussion Document looking into Strengthening the resilience of Aotearoa New Zealand's critical infrastructure system.
 - 1.2. We set out Air New Zealand's response to the questions raised in the Appendix below. Air New Zealand supports the objectives of DPMC's work programme to enhance critical infrastructure resilience, protect New Zealanders' wellbeing, and create additional opportunities for economic growth. We further support work to identify current shortcomings and strengthen New Zealand's regulatory framework to deliver on resilient critical infrastructure - while being guided by the principles of effectiveness, cost, and unnecessary complexity.
 - 1.3. Massive disruptions to New Zealand's air connectivity caused by Covid-19 border closures and the Auckland Anniversary Weekend floods made clear that aviation connectivity is critical to New Zealanders' health and wellbeing. Air New Zealand's Cyclone Gabrielle response further showed how critical aviation is to the maintenance of lifeline utilities and services in New Zealand during disasters with the domestic fleet proving critical to re-establish connectivity for the Gisborne/Hawke's Bay areas as roads were closed - carrying first responders and other critical goods into the region.
 - 1.4. The four mega trends identified in the Discussion Document including climate change, geopolitical complexity, economic fragmentation, and new technologies are already presenting risk to Air New Zealand's operation. As the likelihood of major disruptions looks set to increase, it is vital New Zealand maintains efficient and robust aviation infrastructure to support resilient air connectivity.
 - 1.5. New Zealand's existing regulatory approach to managing resilient critical infrastructure in aviation is fragmented and lacks long term vision. Key responsibilities are divided amongst several different Government agencies and SOEs. The breadth and depth of connections between infrastructures in aviation, means that vulnerabilities in any critical infrastructure asset can pose risks to the entire system's stability – government involvement to support the system's stability and minimum resilience standards therefore has its role. There is scope for a clearer allocation of responsibilities, and a national vision to drive action and investment from both public and private sector stakeholders.
 - 1.6. While Air New Zealand supports the broad objectives of the work programme, we see an opportunity to focus more on the pricing models that fund critical infrastructure to ensure these provide the right incentives to prioritise long term resilience. The work programme could also lift its focus on the importance of liquid fuel security and the supporting infrastructure – a key vulnerability for an island nation that imports 100% of its liquid fuels.

Thank you for the opportunity to provide this response.

Yours sincerely



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Appendix: Questions for feedback

Prelude: Objectives for and principles underpinning this work programme

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

Air New Zealand considers that more does need to be done to improve the resilience of New Zealand's critical infrastructure system. The massive disruption to New Zealand's air connectivity caused by Covid-19 and the subsequent closure of international and regional borders, laid bare the critical role that aviation provides in maintaining New Zealander's health and wellbeing with the flow of critical goods and services. Air New Zealand sees the following key opportunities for improvement:

Aviation System - New Zealand's existing regulatory approach to managing critical infrastructure in the aviation system is fragmented and lacks a long-term vision or focus on resilience. Key responsibilities are divided amongst several different Government agencies and SOEs. A future critical infrastructure strategy should look to improve coordination and consistency as well as set clear responsibilities for long term resilience and lines of reporting.

Underinvestment in Infrastructure Resilience - The user pays model of funding most aviation infrastructure does not provide the right incentives to focus on long term resilience. We are seeing underinvestment in critical aviation infrastructure throughout New Zealand with limited latent capacity and poor availability of contingency options – this dramatically increases the impact severity of disruption scenarios, as well as placing economic growth at risk as aviation approaches infrastructure capacity limits.¹

Business Continuity Planning - Air New Zealand is concerned that there is no evidence of Business Continuity Planning by the operators and infrastructure owners of New Zealand's jet fuel supply chains. Robust BCPs should accompany the Minimum Fuel Stockholding Obligations (MSO) set out in the Fuel Industry (Improving Fuel Resilience) Amendment Bill to mitigate disruption risk in fuel supply chains.

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

Auckland Anniversary Floods - The Auckland Anniversary Floods saw Auckland Airport's domestic and international terminals flooded, with extensive damage to the technology that is required to process passengers – including kiosks and baggage belts. Over 2000 airline passengers had to overnight in the terminal and Air New Zealand had 9,000 customer journeys disrupted by cancellations due to the temporary Auckland closure of the airport. Given this disruption occurred at peak travel season – it was a major challenge to get these customers to their destinations as flight loadings were already very full even before the weather disruption, and capacity across the global aviation network was limited. As the baggage belts were damaged for some time, the business had to revert to a very manual process requiring many additional staff at

¹ <https://www.dia.govt.nz/Auckland-Fuel-Line---Final-Report>

check-in - a pool of volunteers from within the business were drafted in to respond. The infrastructure failure overall had a massive impact on our business and by virtue of that, the many other businesses and New Zealanders who rely upon uninterrupted air connectivity, both domestic and internationally (with other foreign-based airlines similarly affected). This event, paired with multiple disruptions to fuel supply infrastructure (detailed below), along with the inability to access RNZAF Ohakea as a pivotal alternate airfield for international arrivals, undermines New Zealand's credibility as a modern resilient economy that is worth committing aviation capacity to. These types of business-continuity risks influence foreign operators' willingness to enter/remain in the New Zealand market, reducing air connectivity and competitiveness.

Recent Disruptions to Jet Fuel Supply - Over the past 12 months, Air New Zealand and other foreign-based airlines have experienced multiple fuel supply disruptions. The causes of these have been wide-ranging and have been related to; resourcing, asset failures, road transport delays, storage shortages, low stockholding, and most concerningly – fuel quality. On three separate occasions imported shipments to New Zealand have not met quality standards, and in two of those instances airlines' fuel uplifts have had to be rationed. While Air New Zealand has managed to minimise disruption to passengers through careful rationing and 'tankering' of fuel from other countries – these disruptions come at a material direct cost to Air New Zealand and lead to indirect costs to the New Zealand economy through supply chain disruptions as cargo is left behind to reduce weight and conserve fuel.

Cyclone Gabrielle - Immediately following Cyclone Gabrielle Air New Zealand provided essential transport telecommunications equipment for the banking sector and essential medical supplies to hospitals and healthcare providers in the impacted regions. However, telecommunication failures impacted our ability to contact staff and customers in the Tairāwhiti and Hawke's Bay regions to ensure our operation could continue. The inability to communicate flight status information further increased pressure on other emergency services and transport operators. The failure of the telecommunication networks also increased security risks for our operation with members of the public 'piggybacking' off Wi-Fi nodes or stealing satellite equipment. Road closures and fuel shortages caused by panic buying created additional challenges with some of our staff unable to get to work to support airline operations.

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

Resilient critical infrastructure requires a certain level of redundancy and planning to ensure single points of failure are minimised and/or supported by adequate business continuity planning. Airlines are mandated to plan for alternate airports should an airport be unavailable, and so are well versed to dealing with short term infrastructure outages. It is longer term issues such as fuel supply shortages or large-scale flooding of airport terminals that is difficult to absorb and plan for. The aviation system is reliant on a regional network of critical infrastructures operating in sync, with a major outage at one airport often cascading to have an impact on others as flights get delayed and arrive out of cycle. We set out specific examples below.

Jet Fuel Supply - Under current arrangements there is little transparency on the availability of actual jet fuel supply during major disruptions which gives limited confidence to the calculations made to ration fuel when there are shortages, the burden of which falls on airlines. Air New Zealand

recommends better processes for information sharing that mandate the need for transparency and timeliness of information about fuel stockholding levels at national, regional, and bulk storage facility levels and at specific locations (such as Auckland International Airport) – particularly prior to and during an adverse event. This is key to enable Air New Zealand to maintain connectivity in New Zealand and/or assist in evacuations or with emergency provisions.

Following the failure of the Marsden-Auckland pipeline in 2017, a Government Inquiry was undertaken (report² released in 2019) which recommended a need for further investment in national fuel supply infrastructure including jet fuel storage capacity at Auckland Airport, sufficient cover for outage events at all terminals and, ideally, a second permanent supply chain. Other low-cost contingency measures were also recommended such as preparatory investment in mobile skids that could be deployed on any wharf to discharge fuel products into fuel tankers. Most of these recommendations have not yet been delivered and serious single point failures in all five jet fuel supply chains in New Zealand remain.

There are further vulnerabilities for the fuel supply of several of our regional airports which could be nationally significant and impact regional responses to a disaster. For example Queenstown Airport only holds 3-5 days of jet fuel which is transported by road from Dunedin or Christchurch so could face major disruption during an earthquake.

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

Air New Zealand supports a principled approach to improving the resilience of critical infrastructure that considers effectiveness vs cost and complexity. We are open to working with government and aviation infrastructure stakeholders to identify and deliver a ‘socially optimal’ level of resilience – this type of analysis should extend to investment in all critical aviation infrastructure including airports and the air navigation system. The current economic regulatory environment for airports does not incentivise this investment, nor does it provide airport users with the ability to require that airport companies meet certain minimum resilience standards.

Another example where a balance must be struck between resilience and cost is the minimum onshore stockholding of fuel. This should be set at a level intended to achieve a balance between minimising the impact of potential fuel supply disruptions and avoiding disproportionate price increases for customers by adding unnecessary redundancy into the system. Again ensuring a principled approach to government funding of resilience is key, for example if fuel resilience is considered a public good (as the onshore storage of diesel is in the Fuel Resilience Bill with 7 days of government funded procurement and storage of diesel to support emergency services) then a principled approach would look to extend this to procurement and storage of 7 days of jet fuel which is also key for the running of emergency services (e.g. Air New Zealand’s transport of critical medicines, personnel/emergency responders and food into Gisborne and the Hawke’s Bay after Cyclone Gabrielle).

- **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**

² <https://www.dia.govt.nz/Auckland-Fuel-Line---Final-Report>

Zealand's wellbeing, and supporting sustainable and inclusive economic growth. Do you agree with these objectives? If not, what changes would you propose?

Air New Zealand supports these objectives. More resilient critical infrastructure and supply chains in turn makes our organisation more resilient and able to continue to connect New Zealand through and immediately after adverse events.

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

Air New Zealand agrees with the proposed criteria and supports the government's efforts to keep the administrative cost low of any regulatory changes or need for additional coordination between government regulators. Air New Zealand supports efforts to create a more coordinated centralised and strategic approach to the short and long-term resilience of critical infrastructure in New Zealand.

Section 1: Background and context

Why a new regulatory approach may be required.

- **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?**

The four mega trends identified in the Discussion Document already present risk to Air New Zealand's operation as outlined below:

1) Climate change - We know that climate change means that severe weather events will happen more often in future. We also know factors like sea level rise will threaten current airport infrastructure. For example, Auckland International Airport, which receives 75 percent of incoming international passengers, is vulnerable to sea level rise of 0.5m and above – this is perhaps evidenced by Air New Zealand's understanding that most of the flooding recently experienced at the Auckland international terminal was caused by ground water table rising rather than the deluge as it fell. Airports in Hawke's Bay, Northland, Nelson, Dunedin, Invercargill, and the West Coast are also vulnerable.³ We note that 13 airports in NZ are currently exposed to coastal inundation in a 1% AEP storm.⁴

2) A more complex geopolitical environment - International geopolitical tension has increased the uncertainties faced by our operation and will continue to be a risk to New Zealand's global connectivity as conflicts disrupt the security of open-air space and access to landing slots at aviation hubs. For example the EU's recent moves to ban the use of Russian airspace for its carriers reduces EU-NZ connectivity and Heathrow Airport confiscating Russian airline Aeroflot's landing

³Air-Navigation System Review Phase 2 Report May-2023: <https://ansr.transport.govt.nz/assets/Uploads/Air-Navigation-System-Review-phase-two-report-May-2023.pdf>

⁴ <https://deepsouthchallenge.co.nz/wp-content/uploads/2021/01/Exposure-to-Coastal-Flooding-Final-Report.pdf>

slots without payment create further uncertainty and risk of reciprocal responses. Broader business-related risks can also be expected with societal and economic shifts toward a low carbon future – these can include policy and regulatory risks, technological risks, market risks, reputational risks, and legal risks. In this respect, the emergence of mechanisms such as the European Union’s Carbon Border Adjustment Mechanism signals a trend towards greater regulation on imports/exports and changing customer sentiment. Such transitional risks further amplify the need to decarbonise New Zealand’s connectivity to improve New Zealand’s economic resilience.

3) Economic fragmentation - As the global aviation industry recovers from the COVID-19 pandemic, aircraft supply chains have come under pressure, and suppliers to aerospace manufacturers face a host of uncertainties, including shortages in critical inputs. The aerospace industry relies heavily on a complex, global network of suppliers to provide the raw materials, components and sub-assemblies needed to manufacture both aircraft and the materials required to maintain the aircraft throughout its life. In addition, the aerospace industry is subject to strict regulations, which impose stringent compliance requirements on all members of the supply chain. This complexity impedes new entrants into the market with airlines needing to develop strategies to effectively manage the existing supply base. When disruptions occur the complexity of aerospace supply chains lead to heightened impacts compared to many other industries given the lack of alternative supply or the complexity of changing suppliers or supply strategies.

Another material aerospace supply chain complication is the difficulty in recruiting skilled labour to fill key engineering and manufacturing roles vacated during the COVID retrenchment. Staffing shortages amongst key engineering and maintenance crew at Air New Zealand have created constraints to our network this year. Whenever maintenance is required on an aircraft (be it simple like a transit maintenance through to more complex tasks) we need to certify this work in accordance with NZ CAA regulations – this is carried out by Licensed Aircraft Maintenance Engineers (LAME). New Zealand is currently very short of LAME’s particularly in Auckland and this regularly leads to network delays as certification activities cannot be completed in a timely way. Ensuring the aviation sector is properly staffed through supportive immigration settings for critical workers will therefore be key to building aviation infrastructure resilience.

The effects of these negative pressures on aviation supply chains continue to manifest through much longer lead times for spare parts (3x), higher prices and more uncertainty as to security of supply and therefore more risk of disruption to New Zealand’s connectivity.

4) New technologies (cyber-attacks). As the system becomes increasingly data dependent, the potential impact of system failure grows in severity with cascading impacts. Digitisation creates opportunities for intentional disruption to aviation and vulnerability to cyberattacks is increasing.⁵

As the likelihood of major disruptions from these ‘mega trends’ look set to increase and will adversely affect the stability of the infrastructure system over the long term, it is vital New Zealand maintains efficient and robust infrastructure to support resilient air connectivity.

⁵ Air-Navigation System Review Phase 2 Report May-2023: <https://ansr.transport.govt.nz/assets/Uploads/Air-Navigation-System-Review-phase-two-report-May-2023.pdf>

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

The recent Air Navigation System Review Phase 2 Report (ANSR Report) made clear that *public good framing of system infrastructure and services should include a shift from the current narrow focus on individual agencies' commercial performance to a wider picture of system level outcomes.*⁶ The Report goes on to recommend that to protect air navigation system infrastructure, services, and connections there should be a *decoupling of critical infrastructure and service provision from dependence on user-generated revenue.*⁷ Critical infrastructure and service deployment and maintenance must be supported by sustainable, predictable funding. The provision of nationally critical infrastructure and services should not be reliant on the ability of the asset owner to generate revenue through user charges or on short-term, stop-gap funding. A broader regulatory rethink of the user pays for-profit funding models of critical infrastructure providers such as Airways and airports which recognises the public good of critical connectivity will incentivise more investment into resilience and reduce the financial and economic implications of infrastructure failures in the longer term.

We set out several case studies below to further inform DPMC's analysis on the regulatory framework needed to enhance resilience.

Case study – airports. Since New Zealand's airports were established in the earliest days of air connectivity, they have been essential components of our national transport and trade infrastructure, enabling a vital social and economic link between New Zealand and the rest of the world. New Zealand's three major airports are however natural monopolies, and the way in which they are regulated has allowed them to prioritise economic return for shareholders and their own commercial interests over planning for and investment in resilient critical airport infrastructure for the long-term benefit of all New Zealanders and the wider economy. Under the current regulatory settings, airport decision makers are not obliged to account for national resilience considerations, including how they might best support the effective, integrated operation of the air transport network and supply chain as a whole. A regulatory framework overseeing airports that encourages a more nationally focussed, strategic approach would help realise the considerable productivity benefits associated with efficient aviation infrastructure, including improved economic growth and supply chain efficiency & resilience for high value exporters. This could also see the earlier introduction of critical investments for national resilience - such as a Cat IIIB Instrument Landing System for Christchurch Airport to enable flights fitted with the receiving equipment to land during fog.

Case study – air navigation services. The limited resilience of air navigation services to support our operations and maintain New Zealand's critical air connectivity is a growing concern for our operation. In the period April 2022-2023 we saw the use of contingency procedures at New Plymouth, Gisborne, Palmerston North and Ohakea due to staffing constraints. This resulted in 16 days where for significant periods no aerodrome service was available. As we noted during the ANSR a modern and responsive air navigation system is critical to keeping

⁶ Air-Navigation System Review Phase 2 Report May-2023: <https://ansr.transport.govt.nz/assets/Uploads/Air-Navigation-System-Review-phase-two-report-May-2023.pdf>

⁷ Air-Navigation System Review Phase 2 Report May-2023: <https://ansr.transport.govt.nz/assets/Uploads/Air-Navigation-System-Review-phase-two-report-May-2023.pdf>

New Zealand safe, connected, growing, resilient, and secure. Unfortunately, the current user pays system does not equip New Zealand well to deliver on this and respond to future risks and opportunities to improve resilience in air navigation services. For example, the investment cost to transition Airways from procedural control in regional centres to centralised surveillance control would be difficult to recover under the user pays model. This is despite the fact that the transition to a surveillance service would improve efficiency, safety and resilience (and could have kept air services operational at Napier Airport during and immediately after Cyclone Gabrielle). Air New Zealand is concerned that due to the lack of incentive or direction within the current Airways funding model for innovation or future resilience - most investment has been driven by commercial needs, resulting in a piecemeal introduction of improvements not aligned with national strategic interest or resilience.

Case study – increased long term operating costs for aviation. The financial implications of a global movement towards enhancing critical infrastructure resilience, while trying to decarbonise and reduce emissions, will drive up the cost of global aviation. Inflationary pressures on global aviation will be disproportionately felt by the New Zealand economy given its reliance on air travel for connectivity. The need to decarbonise aviation and procure Sustainable Aviation Fuels (SAF) to do so - will further drive up the cost of our operation with SAF currently at 3-6 times the price of fossil jet fuel. The New Zealand economy will once again be disproportionately affected by the cost of this given the amount of SAF required for the long haul travel that New Zealand relies on for connectivity (unless a competitive domestic SAF industry can be established or other supply side support mechanisms are advanced). Auckland Airport's 10-year \$5.6 billion investment into Auckland Airport will further increase the operating costs of our operation as landing charges are set to significantly increase.

Section 2: Potential barriers to infrastructure resilience

Building a shared understanding of issues fundamental to system resilience

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

We support the assessment in the Discussion Document that there is a need for a greater shared understanding of hazards and threats and that critical infrastructure resilience depends on governments partnering with critical infrastructure owners and operators to prepare for these. Given the dynamic global nature of our operation – it is important there are clear information flows when global and national threats are identified. A shared understanding of hazards and threats to prepare for will ensure the allocation of both public and private funds to address these are adequately prioritised and allocated efficiently, without duplication of effort.

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

To run a complex operation such as Air New Zealand we need transparent information flows from suppliers and regulators – in particular during a crisis. We set out below additional information flows that could better support the resilience of our operation (alongside the fuel security examples provided above):

Security - The ANSR report clearly articulates that airspace users increasingly depend on the provision of accurate, secure, timely data that is quality-assured and situationally relevant. As airspace management is largely an automated process, open information exchange facilitates operational excellence, decision-making and risk management. With data comes opportunity but also responsibility. IT is a significant risk to the safe and secure management of our skies. Network volatility, cybercrime and cyber failure are constant, real threats to the entire system. And with the cross-domain nature of airspace and third parties accessing its intelligent systems, maintaining safety and integrity is critical. Cyber security and cyber resilience should be system-wide priorities, based on global quality standards. New Zealand regulators and aviation stakeholders must continue to collaborate on all matters relating to cyber security and cyber resilience to protect our skies.⁸

Emergency Response - Within the context of emergency response we support the enhanced information gathering and sharing powers for NEMA as part of the proposed Emergency Management reforms. However, there needs to be agreement in advance on what information is required, including the desired format for data as well as assurances for how it will be utilised and protected. Where possible information should be shared with other critical infrastructure providers so that they can plan responses based on their own dependencies and interdependencies. The information that would best support Air New Zealand to improve its resilience is impact, current status, key public information messages, and estimated restoration time (acknowledging the obvious challenges that come with providing this data).

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

We would support the Govt establishing secure systems to share sensitive information between governments, regulators, and critical infrastructure owners and operators. Best practice systems like Australia's 'Trusted Information Sharing Network' and the United States' Domestic Security Alliance Council could be adopted to improve infrastructure resilience. We would further support work to map where agency responsibilities for critical infrastructure resilience lie and assessments on whether those agencies are adequately funded. Clarifying temporary antitrust exemptions during a crisis (such as for fuel suppliers with fuel storage information) would also provide more confidence in sharing necessary information during a crisis.

Setting proportionate resilience requirements

- **Would you support the government being able 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)?**

⁸ Air-Navigation System Review Phase 2 Report May-2023: <https://ansr.transport.govt.nz/assets/Uploads/Air-Navigation-System-Review-phase-two-report-May-2023.pdf>

We support the Discussion Document's assessment that critical infrastructures operate as a system – the same applies for the aviation system. The breadth and depth of connections between infrastructures, means that vulnerabilities in any critical infrastructure asset can pose risks to the entire system's stability – government involvement to support the system's stability and minimum resilience standards therefore has its role. Air New Zealand supports a mix of principle-based requirements across the aviation system (e.g. an objective, similar to those that exist under the CDEM Act 2002 'to be resilient') and process-based requirements (e.g. a requirement to adopt a standard process or risk management framework, such as an annual requirement to identify critical assets, risks to them, and implement a mitigation strategy). Consideration should be given to the expected levels of service in an emergency and ensuring this is clearly communicated. Standards should also consider community-based outcomes and secondary impacts to hazards and risks. For example, during the Auckland Anniversary Floods passengers were sleeping in the terminal due to flight disruption and accommodation shortages. This could have been mitigated through the design of multi-purpose welfare or evacuation facilities.

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

The existing approaches to risk management are sufficient and critical infrastructure providers are typically aware of these approaches in theory but when it comes to implementing risk management, the level at which this performed is inconsistent. This is due to differences in interpretation, resource, and financial constraints. Minimum resilience standards would complement these approaches by setting consistent targets that critical infrastructure providers will need to meet. Minimum resilience standards will also put competing providers on an even playing field. Consideration needs to be given to international providers as to whether they need to be held to the same standard. Adoption may be improved if there was some form of recognition, financial incentive or underwrite.

- **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?

Air New Zealand supports the ANSR review recommendation that the Government revisit options for sustainable, equitable investment to ensure minimum levels of security and resilience are maintained in aviation. The mechanism(s) should: 1) create certainty for companies on forward investment in infrastructure security and maintenance 2) contribute to protection of Aotearoa New Zealand's sovereign airspace; and 3) drive transparency and equity around which parts of the system receive Crown funding for national security and resilience purposes. We also support the recommendation that Airways and MetService be recognised as lifeline utilities or critical infrastructure, given the criticality of their services to emergency response and system resilience.

Managing significant national security risks to the critical infrastructure system

- 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?

We do not see a role for direct intervention into operating airlines given the technical nature and the liabilities at stake but we do see a role for airlines to partner with government agencies to respond to and manage threats against critical infrastructure.

- 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?

N/A

Creating clear accountabilities and accountability mechanisms for critical infrastructure resilience

- Do you think 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? If so:

- do you consider that new regulatory functions should be the responsibility of separate agencies, or a single agency?

We would support the government identifying a Minister and an agency/agencies who have responsibilities for critical infrastructure systems, with adequate funding to drive coherent policy settings. A central agency could set out clear designations to relevant Ministries and encourage a coordinated response to critical infrastructure failures. e.g. MoT could be instructed to work closely with MBIE on adequate fuel provision for critical transport services.

- do you consider that an existing entity should assume these functions or that they should be vested in a new entity?

N/A

- how do you see the role of a potential system regulator relative to sectoral regulators?

Reporting lines and roles and responsibilities must be clear and not burdensome. Reporting the same/slightly different information to multiple entities on different deadlines is a distraction during an emergency and hampers productivity. As outlined above - the breadth and depth of connections between infrastructures, means that vulnerabilities in any critical infrastructure asset can pose risks to the entire system's stability – government involvement to support the system's stability and minimum resilience standards therefore has its role.

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

- do you consider that legal obligations should be applied to the entity, to the entity's

directors/executive leadership, or a mix of the two?

N/A