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Ministry of Transport
3 Queens Wharf
Wellington 6011

AIR NEW ZEALAND SUBMISSION ON HĪKINA TE KOHUPARA- KIA MAURI ORA AI TE IWI, TRANSPORT EMISSIONS: PATHWAYS TO NET ZERO BY 2050

Air New Zealand welcomes the opportunity to submit on *Hikina te Kohupara- Kia mauri ora ai te iwi: Transport Emissions: Pathways to Net Zero by 2050* (the **report**).

Air New Zealand is supportive of a national strategy for shifting our transport system to a low or zero carbon pathway. This will be critical to Aotearoa meeting its net zero 2050 goal, and to combat the climate emergency.

Air New Zealand strongly supports the report's conclusion that given its economic and social criticality, aviation must rapidly decarbonise, and an industry decarbonisation strategy is required. Air transport is critical to Aotearoa's export, investment, and tourism industries, and plays an essential role connecting our people and products to the world, and the world to us. However, flying creates damaging greenhouse gas emissions. The future prosperity of Aotearoa's primary produce exports and the tourism sector depends on the air transport industry being able to reduce these emissions.

Air New Zealand is committed to reaching our goal of net zero carbon emissions by 2050 by reducing actual emissions as far as possible and using offsetting as a last resort. Our decarbonisation roadmap identifies three main levers for decarbonisation: the use of Sustainable Aviation Fuel (**SAF**), the operation of next generation aircraft (electric, hybrid and/or hydrogen), and continuous improvement in operational efficiencies (such as through flight planning and improving pilot data). We are pleased to see these key levers reflected in policy considerations throughout the report.

The reality is that aviation is particularly challenging to decarbonise over the short to medium term. Even with the full deployment of aviation decarbonisation technologies, there is no current technology mix that can enable the aviation industry to get to absolute zero emissions by 2050.

Given aviation's limited abatement options and economic and social criticality, it is essential that the importance of aviation decarbonisation is recognised and prioritised in policy making, and investment opportunities. The private sector cannot decarbonise aviation on its own.

Overall, Air New Zealand supports the report's possible actions and policy proposals to decarbonise aviation, including through SAF, next generation aircraft, and improved efficiencies. Given the lack of global ambition towards emissions reductions from aviation, domestic action is more critical than ever. We identify the following key issues that require further consideration and discussion:

- The report excludes domestic aviation from the potential pathways for transport decarbonisation. Our view is that **it is critical that any pathway for the**

decarbonisation of New Zealand’s transport sector includes domestic aviation emission reductions. Decarbonising aviation will draw on the same resources required to decarbonise other transport modes, including biofuel feedstocks, renewable energy supply and infrastructure, and hydrogen, and so it must be considered in any systemic consideration of the decarbonisation of the transport sector, and the broader economy. Emissions must not be excluded from the decarbonisation pathway on the basis that they make up a smaller percentage of emissions than other transport modes. As aviation is hard to abate, domestic aviation emissions will only grow as a percentage of total emissions as other sectors decarbonise through more readily available pathways/technologies.

- We urge the government to **consider the international context in which our aviation industry operates when considering domestic policy settings** for decarbonisation, particularly through SAF. To ensure economies of scale and to retain global competitiveness, it is imperative that fuel uplift for international flights is factored into policy directed at establishing SAF supply in Aotearoa- including in the scope of any biofuels mandate. This is critical for our export and tourism industries.

Aviation emissions will not get to absolute zero by 2050. However, with the right settings they can be significantly reduced, bringing broad benefits to Aotearoa.

Air New Zealand seeks to work proactively with the government and others in the private sector to address these issues, and the other challenges posed by aviation carbon emissions. We welcome further discussion on the content of this document and look forward to working constructively with the government as it implements the Climate Change Commission’s final advice and develops a strategic emissions action plan for transport.

Further detail in response to the specific consultation questions is outlined in **Annex One**. Should you require additional information on this submission, please be in contact with Meagan Schloeffel, Head of Sustainability, at Meagan.Schloeffel@airnz.co.nz.



David Morgan
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ANNEX ONE: HĪKINA TE KOHUPARA- KIA MAURI ORA AI TE IWI: TRANSPORT EMISSIONS: PATHWAYS TO NET ZERO BY 2050

CONSULTATION QUESTIONS

Consultation question 2

Is the government’s role in reducing transport emissions clear? Are there other levers the government could use to reduce transport emissions?

1 Air New Zealand supports the report’s summary of the government’s role in reducing transport emissions. Decarbonising the transport sector will require a combined and highly coordinated effort across the public and private sectors.

2 To coordinate the aviation decarbonisation agenda, Air New Zealand believes the establishment of an aviation focussed public-private, cross-agency advisory body would be invaluable. Bringing together the interests of multiple government agencies and sectors of the economy, this body could be tasked with managing and securing the policies and investment settings needed to enable aviation to decarbonise. This includes the establishment and commercialisation of Sustainable Aviation Fuel (**SAF**), and the establishment of the infrastructure required for next generation aircraft (electric, hybrid and/or hydrogen). It could also include a work program on increasing operational efficiencies.

3 Following a similar request from the aviation industry in the United Kingdom (**UK**), the UK government established the Jet Zero Council.¹ Comprised of representatives from the government and aviation sector, Jet Zero is focused on delivering net zero aviation by 2050, establishing and commercialising SAF production, and developing and industrialising zero emission aviation and aerospace technologies.

4 Air New Zealand supports the establishment of a similar advisory body in Aotearoa and together with the SAF Consortium (Air New Zealand, Z Energy, Scion, LanzaTech and LanzaJet) has found enthusiasm and support for this concept among representatives in the energy, technology, aircraft manufacturing, regulatory, airport, research, and sustainability sectors. We look forward to engaging with the government further on this concept.

Consultation question 5

Are there other travel options that should be considered to encourage people to use alternative modes of transport? If so, what?

Modal shifts- interregional rail

5 Air New Zealand supports the report’s conclusion that “Before decisions are made on if Aotearoa should increase interregional rail, we would need to consider its economic viability and competitiveness against changes in our vehicle and aviation fleet to be low emissions.”

6 Air New Zealand acknowledges that in some geographies, moving passengers from aircraft to trains could reduce greenhouse gas emissions and make economic sense,

¹ More information on the Jet Zero Council at this [link](#).

particularly for short haul travel. For example, in Europe, Japan and China there is a strong case to be made for reliable and rapid interconnectivity via rail connections.

7 For decarbonising Aotearoa's interregional network, Air New Zealand's view is that given our high percentage of renewable energy, highly connected regional air network, and lack of established rail network, Aotearoa should seize this unique opportunity to be world-leading in the adoption of low or zero emissions aircraft and SAF, and to become an innovation hub for aviation decarbonisation.

8 Air New Zealand is committed to producing a low and/or zero emissions public transport and cargo offering. By 2035, Air New Zealand is planning for ~200 million litres of SAF to be provided in New Zealand² and expects ~30% of sectors to be flown with electric, hybrid or hydrogen aircraft. We are continuously working on other operational improvements to further reduce emissions from flying.

9 As well as significantly reducing domestic aviation emissions, the operation of next generation aircraft is likely to bring other, broader social and economic benefits. This includes the opening of additional routes to, from and between smaller centres, increasing regional connectivity across Aotearoa.

Urban Air Mobility

10 In addition to electric aircraft for public transport, Air New Zealand advocates that the government consider the policy and regulatory settings required for the deployment of **eVTOL** (electric vertical takeoff and landing vehicles) in a new mobility solution, commonly referred to as Urban Air Mobility (**UAM**).

11 UAM as a concept deploys fleets of small electric aircraft capable of taking off and landing vertically (i.e., eVTOL). UAM is best positioned to act as a replacement and solve for inefficient car journeys (greater than one hour) and inefficient commercial flights (less than 30 minutes). eVTOL aircraft combine recent advances in aerospace technology to allow travel speeds of over 300 kilometres per hour, travel range of beyond 300 kilometres (initially 150 kilometres), noise footprints 100 times lower than helicopters today, and zero emissions.

12 It is envisaged that eVTOL aircraft will operate from small transport hubs like helipads, called vertiports.³ Vertiports can be developed at a low cost, and can leverage existing structures to enable the deployment of airborne mobility quickly and without the need of expensive roading, railway or airport infrastructure.

13 While initially eVTOL aircraft will operate at small volumes, the growth of on-demand mobility platforms and low operating costs (expected price per kilometre cost to be less than a taxi today)⁴ could see UAM scale to volumes that will fundamentally disrupt current public mobility solutions for trips of around 300 kilometres or less.⁵

² Through a combination of domestic production and imported supply.

³ Uber Elevate UAM [Whitepaper](#), page 50

⁴ NASA commissioned Urban Air Mobility (UAM) [Market Study](#)

⁵ NASA commissioned Urban Air Mobility (UAM) [Market Study](#)

14 In 2018, Air New Zealand partnered with eVTOL manufacturer Wisk to explore how the technology could be brought to market in New Zealand. We view eVTOL's as a promising point to point public transport option, also solving the intermodal problem of linking major transport hubs with underserved community centres. We estimate this transport option will be ready for deployment this decade.

15 Air New Zealand welcomes further discussion with the government on this emerging and exciting public transport mode.

Consultation question 9

Do you support the possible actions to reduce domestic aviation emissions? Do you think there are other actions we should consider?

Excerpt from the report at page 79:

Decarbonising the aviation fleet: possible key actions

- *Invest in, produce and mandate sustainable alternative fuels that can also be used by the aviation sector. (This has commenced with work on a biofuels mandate)*
- *As technology advances, consider its implementation for Aotearoa, e.g. wider use of electric planes.*
- *Support research, development and production of sustainable aviation fuel.*
- *Examine if the current air navigation system is effective or could be more efficient. (Partially underway through New Southern Skies and Performance Based Navigation)*
- *Implement operational improvements such as better air traffic flow management and improved navigation to reduce fuel burn. (As above)*

16 Overall Air New Zealand supports the report's possible key actions for decarbonising aviation, which consider all three of the key levers in our decarbonisation roadmap.

17 In addition to these actions, we suggest establishing a public-private advisory body focused on the policies and investment required for aviation decarbonisation. This suggestion is outlined in further detail in our response to Consultation Question 2.

18 We provide further comment on the report's suggestions below.

Invest in, produce, and mandate sustainable alternative fuels that can also be used by the aviation sector

And;

Support research, development and production of sustainable aviation fuel

19 SAF is a critical aviation decarbonisation technology. It has the potential to dramatically reduce aviation carbon emissions (we calculate up to 85%) compared to traditional jet fuel and is available for use today. It is the only current option for decarbonising long-haul flights.

20 Domestic SAF production would also create numerous co-benefits, many of which support a Just Transition. These include new clean energy jobs,⁶ regional development opportunities, the decarbonisation and safeguarding of New Zealand's tourism proposition, the decarbonisation of trade links, opportunities for repurposing waste products, domestic fuel security and improved air quality.

21 However, there is no SAF supply in New Zealand. In addition, the high initial costs of establishing and producing SAF mean that it commands a price premium of at least two to three times that of traditional fossil-derived jet fuel. Unless incentives are in place while the technology and supply chain mature, this premium will continue to be a barrier to any material SAF uplift.

22 Air New Zealand is supportive of the two suggested actions on SAF, and proposes these could be condensed into the one action “**Support and invest in research, development and production of sustainable aviation fuel in Aotearoa**”.⁷ This would cover the government's existing work on a biofuels mandate, and the report's proposed actions for the first budget period. It would also encompass the four key actions recognised in Air New Zealand's SAF white paper as being critical to establishing SAF supply in New Zealand:⁸

- a) The establishment of a **public-private aviation-specific decarbonisation advisory body** to facilitate the coordination and development of the policies and investment settings needed to support SAF, as well as other areas of aviation decarbonisation
- b) A **detailed feasibility study** to confirm high level production cost estimates, confirm feedstock supply, determine necessary policy and investment settings, and quantify the greater benefits to the regions of New Zealand of standing up a SAF industry.
- c) A **SAF specific mandate** to incentivise investment by providing certainty to producers and investors (work underway with the government's biofuel mandate proposal)
- d) **New policies, investment and funding mechanisms** to establish a market and capabilities, and to close the commercial gap between SAF and fossil fuels. Examples include grants, passenger levies,⁹ loans/loan guarantees, contracts for difference, tax incentives, and the ring-fencing of funds from the Emissions Trading Scheme.

SAF, international aviation emissions and enabling policy settings

23 We understand the scope of the report is limited to domestic aviation emissions given the current scope of the government's net zero 2050 goal.

24 However, given the criticality for Aotearoa of maintaining strong economic and social connections internationally, we urge the government to consider SAF policy in Aotearoa in the broader, international operating context.

⁶ The SAF Consortium estimates domestic SAF production in accordance with its roadmap could result in around 6,400 temporary infrastructure development jobs, 1,800 new permanent jobs and 5,000 additional indirect jobs (such as tradespeople, caterers and security).

⁷ For Air New Zealand, the term Sustainable Aviation Fuel is a catch-all for the seven technical pathways currently available, as well as Power to Liquid and future similar feedstock technologies.

⁸ [SAF white paper](#)

⁹ Applying to all air travel, international and domestic.

25 To provide economies of scale and retain global competitiveness, it is imperative that fuel uplift for international flights is factored into policy and investment directed at establishing SAF production and supply in Aotearoa. This includes the proposed biofuels mandate, and any consideration of passenger levies to fund decarbonisation.

26 Domestic SAF production will not be viable in Aotearoa if policy settings are such that it is effectively limited to use on domestic routes. Domestic production has multiple benefits for the economy and Just Transition.

27 In addition, if SAF offtake for international travel from Aotearoa is not supported by enabling policies, we are increasingly likely to find ourselves struggling to compete internationally with carriers that have access to long term, low cost, SAF supply volumes at offshore ports. Enabling SAF at a commercially viable price will be even more imperative if the government decides to include international aviation emissions in its net zero 2050 target.

28 We welcome the engagement we have had with the government to date and look forward to continuing the combined effort to make SAF a reality in Aotearoa, including through the actions outlined above.

As technology advances, consider its implementation for Aotearoa, e.g. wider use of electric planes.

29 The New Zealand economy is highly reliant on short haul domestic flights, with over 60% of flights connecting regional centres under 350 kilometres in length. Given this, Aotearoa is well placed to implement zero emission aircraft on its domestic network.

30 Air New Zealand is working closely with multiple aircraft manufacturers and start-ups to stay up to date with next generation aircraft technological developments, and to inform the design of our future fleet. As mentioned above in Consultation Question 5, by 2035 we are planning for ~30% of total domestic flights to be flown with electric, hybrid, or hydrogen-powered aircraft.

31 Air New Zealand supports the sentiment in the proposed action for the government to consider how next generation aircraft technologies are to be implemented in Aotearoa. However, our view is that technology is already developed to the point that detailed analysis and use-cases can be explored.

32 It is true that it is not yet certain whether we will be flying electric, hybrid or hydrogen aircraft across our networks in 2035. However, we do know that these technologies will require access to significant amounts of clean electricity and new infrastructure.

33 Steps involving all relevant stakeholders should be taken now to ensure this infrastructure need is properly understood, and that investment pipelines are established to enable operational readiness before 2030. Early engagement with transmission companies, energy companies, airports and others in relevant sectors is needed to identify what infrastructure, energy capacity and energy storage is required to deploy next generation aircraft, and to devise a roadmap for getting there. Given investment lead times and the complexity of planning and infrastructure, this process could take five to ten years, and so it needs to start now.

34 Examples of immediate projects include investigating additional renewable generation in locations where hydrogen could be produced, creating airport substations enabling high voltage charging, devising fuelling technology standards (both charging and hydrogen) to enable industry acceptance and implementation, and building energy distribution hubs and networks. The Air Transport Action Group's (ATAG's) report *Waypoint 2050*,¹⁰ which looks at ways for aviation to contribute to the world's climate action mission, provides further suggestions of policies suitable for deployment today.

35 A public-private aviation decarbonisation advisory body (such as outlined above in our response to Consultation Question 2) would be a useful tool for coordinating and facilitating research, investment, and collaboration in preparation for next generation aircraft in Aotearoa.

36 Air New Zealand looks forward to further engagement with the government on this topic.

Examine if the current air navigation system is effective or could be more efficient (Partially underway through New Southern Skies and Performance Based Navigation)

And;

Implement operational improvements such as better air traffic flow management and improved navigation to reduce fuel burn

37 Air New Zealand supports the two proposed actions on improving aviation efficiencies through navigation and traffic flow management. We believe they could be incorporated into one action on improving air operational efficiencies.

38 Air New Zealand is supportive of the New Southern Sky (NSS) and Performance Based Navigation (PBN) work programs and has continued engagement in these forums.

39 This work is significant not only for reducing the amount of fuel burnt in flight, but also for optimising air routes to enable the use of next generation aircraft. Battery powered electric aircraft are likely to be constrained in range, meaning the viability of deployment will depend on optimising the airspace network to keep A to B flight times as low as possible. This is possible through reduced airborne track miles, enhanced traffic management to reduce airborne delays and through better leveraging the PBN, Space Based Augmentation System and Required Navigation Performance, Approval Required technology available to us today.

40 Overall, to maximise operational efficiencies it is critical that alignment is reached on the overarching objectives of the air traffic management system, and that, after safety, these objectives optimise for carbon reduction. This will require continued collaboration between the government and industry. Air New Zealand sees the proposed aviation decarbonisation advisory body as playing a key role in bringing together relevant parties to this discussion.

41 Specifically, one issue we believe requires revision in the first budget period is the implementation of the air traffic flow management rules, and how this is funded. This function is currently carried out by the Air Navigation Service Provider. Our view is that to effectively increase operational efficiencies, the system requires new technologies and process changes.

¹⁰ ATAG's report [Waypoint 2050](#), page 51

If done effectively, this will not only reduce emissions but will also increase on time performance.

Consultation question 10

The freight supply chain is important to our domestic and international trade. Do you have any views on the feasibility of the possible actions in Aotearoa and which should be prioritised?

42 Decarbonising aviation is critical to the future prosperity of Aotearoa’s primary produce exports and tourism sector. The importance of decarbonising air cargo will only increase as the countries we fly to implement carbon reduction measures such as carbon-based airport fees,¹¹ and policies to protect the competitiveness of domestic sectors impacted by internal carbon regulation, such as boarder adjustment carbon taxes.

43 Aviation has an important role to play in reducing emissions in the freight supply chain through improving efficiencies. Air New Zealand is taking steps to reduce the carbon intensity of our air cargo operations. This includes through implementing operational changes to improve fuel efficiency and educating and involving our customers by increasing the transparency of our carbon measurement process. Specifically, this helps address surplus, avoidable emissions that are created from extra fuel carried due to inaccurate cargo weight information provided by the customer.

44 However, there is more that can be done. For example, reducing the number of flights taken by multiple carriers with underutilised belly capacity would reduce emissions. Air New Zealand supports the report’s recommendation to consider the optimisation of payloads, and the recommendations on information sharing and collaboration, including to find opportunities to improve efficiencies in the freight system collectively.

45 Aviation as a freight transport mode must be considered in any system-wide National Freight strategy to consider opportunities to reduce supply chain emissions. Air New Zealand looks forward to engaging with the government and industry to develop this strategy.

Consultation question 11

Decarbonising our freight modes and fuels will be essential for our net zero future. Are there any actions you consider we have not included in the key actions for freight modes and fuels?

Decarbonising fuels

46 Air New Zealand welcomes the importance the report’s recommendations place on decarbonising fuels. For international cargo flights, SAF is the only technology currently available to reduce actual emissions. Although new technologies are in development, due to constraints associated with battery weight and range and hydrogen storage, we think SAF will remain the most viable decarbonisation technology for long haul out to at least 2050.

47 Air New Zealand supports the report’s proposed actions relating to decarbonising freight transport fuel. However, to ensure exporters have access to low carbon aviation freight routes within and from Aotearoa, an additional action on decarbonising freight fuels relating

¹¹ For example, the Swedish government is currently considering charging takeoff and landing fees dependent on an aircraft’s climate impact at Arlanda airport in Stockholm and Landvetter in Gothenburg.

specifically to SAF should be included. For example, **“Support and incentivise the production and supply of Sustainable Aviation Fuel in New Zealand”**. As SAF is more expensive to produce than other biofuels, it has been demonstrated globally that SAF-specific government policies and/or investment is required to incentivise supply and uptake of SAF, and to direct feedstocks towards SAF production.¹² Further information on the policies and actions required to enable SAF in Aotearoa is provided in our response to Consultation Question 9.

Invest in future aviation cargo technologies

48 In addition to an action on decarbonising aviation fuel, Air New Zealand proposes an action on research into future aviation technologies that could provide a low carbon alternative to other freight modes. For example, **“Research future aviation freight technologies and infrastructure (e.g. autonomous electric air cargo vehicles).”**

49 In some cases, the preferable low carbon freight alternative will be road or shipping technologies. However, there may be a future where the economics of certain routes, particularly those over water such as Wellington to Blenheim, or Auckland to Great Barrier Island, could be suited to unmanned electric air cargo vehicles. We advocate that future aviation decarbonisation technologies should be considered in the research and planning for a low carbon freight system.

50 On these and other freight efficiency issues Air New Zealand looks forward to working closely with the government and others in the private sector on the National Supply Chain and National Freight strategies.

Consultation question 12

A Just Transition for all of Aotearoa will be important as we transition to net zero. Are there other impacts that we have not identified?

Sustainable aviation fuel

51 In addition to the safeguarding of New Zealand’s tourism proposition and exports, decarbonising aviation has the potential to present new economic opportunities, including new regional jobs.

52 The SAF Consortium has established that there is a viable pathway to standing up a SAF industry in New Zealand, and that it would have broad social and economic benefits. As well as reducing gross carbon emissions from flying, it would create skilled jobs benefitting the regions, both in the construction and operational phases. The SAF Consortium estimates this to be around 6,400 temporary infrastructure development jobs, 1,800 new permanent direct jobs and 5,000 additional indirect jobs. It would also create more resilient fuel supply chains, by reducing our current reliance on imported fuels.

53 However, decarbonising also comes at a significant cost. With SAF currently at the very least two to three times the cost of fossil fuel, there is a real risk that air travel will become less accessible to New Zealanders. As outlined above and demonstrated internationally,

¹² The European and Californian experiences have confirmed that without policy incentives for SAF production, most biofuel supply will be produced for road transport- a sector with various decarbonisation solutions already available. In response, the EU has developed SAF-specific policies to ensure feedstock is biased to SAF production.

government policy support and investment is essential to help to close the commercial gap between fossil-derived jet fuel and SAF, and in turn lessen the impact of decarbonisation on the cost of air travel and trade. Air New Zealand welcomes further discussion with the government on ensuring a Just Transition for New Zealanders.

Next generation aircraft

54 It is possible that, as well as significantly reducing domestic aviation emissions, the operation of electric or hydrogen aircraft on Aotearoa's domestic network will enable more frequent flights, and the operation of new routes to and from smaller centres. This could strengthen important social and economic connections in Aotearoa.

Consultation question 13

Given the four potential pathways identified in Hīkina te Kohupara, each of which require many levers and policies to be achieved, which pathway to you think Aotearoa should follow to reduce transport emissions?

55 We note the report excludes domestic aviation from the potential pathways for transport decarbonisation. Any pathway for the decarbonisation of New Zealand's transport sector over the next 10 to 15 years must include domestic aviation emission reductions. Reasons for this include:

- Decarbonising aviation will draw on the same resources required to decarbonise other transport modes, including biofuel feedstocks, renewable energy supply and infrastructure, and hydrogen. Given this, aviation decarbonisation must be considered in any systemic consideration of the decarbonisation of the transport sector, and the broader economy.
- As with all modes of transport, to reduce actual emissions in the next decade, action is required now. SAF is ready for uplift, and we know enough to start planning for and investing in the infrastructure required for electric, hybrid and hydrogen aircraft. The government has a critical role to play in facilitating the uptake of both SAF and next generation aircraft, and it can start today.
- We are concerned that excluding aviation from any transport emissions reductions pathway would effectively deprioritise aviation in important decarbonisation policy planning and investment decisions. Just one example could be aviation's exclusion from any prioritisation of biofuel feedstock- as mentioned, it has been shown internationally that without the right policy settings, feedstock will be prioritised for cheaper to produce ground fuels over SAF, worsening the commercial viability of SAF.

56 Domestic aviation emissions should not be excluded from the transport decarbonisation pathway on the basis that they make up a smaller percentage of emissions than other transport modes. As aviation is hard to abate, domestic aviation emissions will only grow as a percentage of total emissions as other sectors decarbonise through more readily available pathways/technologies.

57 Air New Zealand is working to achieve actual emissions reductions from SAF as early as 2022, and by 2035 we expect ~30% of domestic flights to be flown with electric, hybrid or hydrogen-powered aircraft, and 200 million litres of SAF supplied in Aotearoa. Alongside the private sector, the government has an important role in facilitating SAF supply and the use of

next generation aircraft in Aotearoa through supportive policy settings, research, and investment.

58 Aviation emissions will not get to absolute zero by 2050. However, with the right settings they can be significantly reduced. Air New Zealand is committed to working on its own, with the government and with others in the private sector to decarbonise this unique and critical transport mode. We request further discussion on the place of domestic aviation emissions in any transport decarbonisation pathway.

Consultation question 14

Do you have any views on the policies that we propose should be considered for the first emissions budget?

59 Air New Zealand supports the actions and policies proposed for the first emissions budget. Given the lack of global ambition towards emissions reductions from aviation, domestic action is more critical than ever. We provide suggestions of additional policies and actions below.

Aviation decarbonisation advisory body

60 We propose a **public-private, cross-agency advisory body focused on aviation decarbonisation** is established in the first emissions budget period, and as soon as possible.

61 We believe such a body would be invaluable for coordinating and collaborating on the actions and policies required for decarbonising aviation in the first emissions budget period and beyond, including those proposed in the report and listed below.

62 Further information on this concept is provided in our response to Consultation Question 2.

Sustainable aviation fuel

63 Air New Zealand is committed to working with the government and others in the private sector to make SAF a reality in Aotearoa in the first emissions budget period.

64 The following are key policies and actions required in the first budget period to achieve this critical milestone:

- **A SAF- specific mandate:** Air New Zealand supports a biofuel mandate applying to SAF in Aotearoa. However, as it is currently drafted, the government’s Sustainable Biofuels Mandate proposal would not support SAF in Aotearoa. A SAF-specific mandate that applies to all fuel (including international flights) is required. We will engage further on this issue through the Sustainable Biofuels Mandate consultation process.
- **Policies to support domestic SAF production and to make SAF commercially viable:** We welcome the proposal to consider subsidies to support domestic SAF production. Subsidies would encourage investment in domestic production and help to close the commercial gap between fossil-derived jet fuel and SAF. Overseas, a range of policy solutions have been employed to support SAF industries in their infancy.

Examples include those listed in Air New Zealand's SAF White Paper,¹³ and ATAG's *Waypoint 2050* report.¹⁴ Air New Zealand would welcome further discussion on possible policies to support SAF in Aotearoa.

- **A detailed SAF feasibility study** to help confirm high level production cost estimates, confirm feedstock supply, determine necessary policy and investment settings, and quantify the greater benefits to the regions of New Zealand of standing up a SAF industry. Further information on this is provided in our response to Consultation Question 9.
- **Further detailed studies into the use of SAF in Aotearoa**, as the need arises. We note that the Climate Change Commission recommends to the government in its final advice:¹⁵

Undertaking a detailed study into the use of low-carbon fuels for aviation and shipping in Aotearoa. This should identify options for Aotearoa, their barriers to uptake and actions to address them.

We suggest that in the implementation of the Climate Change Commission's recommendation, in addition to a detailed SAF feasibility study, further studies into the use of SAF in Aotearoa are carried out in the first budget period as needed.

Next generation aircraft

65 The energy and infrastructure required for next generation aircraft to operate in the early 2030's can be planned for now. This includes consideration within broader all-sector strategies, such as any national energy strategy. This workstream will require increased collaboration across the public and private sectors.

66 To reflect this, we suggest including the following action in the first budget period:

- **Plan and prepare for new infrastructure and energy requirements for next generation aircraft.**

67 This work program should also be reflected across emissions budget periods two and three. Further information on this suggestion is provided in our response to Consultation Question 9.

Operational improvements through NSS and PBN

68 Air New Zealand supports the continuation of the implementation of operational improvements as per the NSS workplan out to 2025. We suggest that a workplan is also devised for the second emissions budget period.

69 As outlined in our response to Consultation Question 9, we suggest the following specific actions for improving operational efficiencies over the first budget period:

¹³ [SAF white paper](#), Appendix 2

¹⁴ ATAG's [Waypoint 2050](#) report, page 80

¹⁵ *Ināia tonu nei: a low emissions future for Aotearoa*, He Pou a Rangi the Climate Change Commission, Recommendation 19.3, page 272

- **Revise the objectives of the air traffic management system, to, after safety, optimise for carbon reduction**
- **Revise the air traffic flow management rules, and how implementation is funded**

70 Air New Zealand sees the proposed aviation decarbonisation advisory body as having an important role in bringing together relevant parties to this discussion.

Regulatory assessments

71 In addition to those governing air traffic, other regulatory settings will also play an integral role in facilitating the deployment of aviation decarbonisation technologies.

72 Alongside the above actions, we suggest **an assessment of regulatory settings** related to aviation, including airports and energy systems, to ascertain whether the system is fit for purpose for the adoption of aviation decarbonisation technologies.