DairyNZ submission:

Government's pricing agricultural emissions consultation — Te tātai utu o ngā tukunga ahuwhenua

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About DairyNZ

DairyNZ is the industry good organisation representing New Zealand's dairy farmers. Funded by a levy on milksolids and through Government investment, our purpose is to secure and enhance the profitability, sustainability, and competitiveness of New Zealand dairy farming.

We deliver value to farmers through leadership, influencing, investing, partnering with other organisations and through our own strategic capability. Our work includes research and development to create practical on-farm tools, leading on-farm adoption of best practice farming, promoting careers in dairying and advocating for farmers with central and regional government. For more information visit **dairynz.co.nz**

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Executive Summary

1. DairyNZ rejects the package of policies contained in the Government's pricing agricultural emissions consultation, Te tatai utu o nga tukunga ahuwhenua. The Government's proposal undermines the balance of effectiveness and equity developed by the agricultural industry in partnership with Government officials through He Waka Eke Noa (HWEN).

2. Overall, the Government's proposal fails to understand what the industry recommended through HWEN, and how the system elements work together to drive the change without widespread detrimental impacts to farming. DairyNZ strongly recommends the Government set aside its proposal and fully adopt the HWEN recommendations (these are appended as Annex A).

3. HWEN focused on setting prices to create a circular fund that would be used to pay for the sequestered carbon, mitigation technology and other incentives that would help reduce emissions on-farm. The Government's model leads to a price for methane that will force farmers to destock or change land use away from livestock farming. In essence the partnership approach is to incentivise change, using farmers' levy revenue to create behaviour change and enable technical advancement. The Government approach appears to adopt a blunt policy response by pricing out marginal farmers through a tax that will force them out of farming.

4. HWEN represents almost three years of partnership and collaboration, including extensive negotiation with government partners and the compilation of a rigorous evidence base to underpin these recommendations. The changes made in the Government's proposal undermine this partnership approach, and diminish the space for industry oversight, expertise, and voice.

5. Engagement with our farmers, including Māori dairy farmers, has reinforced that they care about the environment, and many are already taking action to reduce their footprint. But they're worried about the viability of their businesses, and broader economic impacts on the whole pastoral sector and rural communities. They're also worried that they are the first in the world to be priced for biological emissions despite already being the most greenhouse gas efficient producers of dairy in the world[1].

6. Virtually all our farmers do not support the Government's proposal. They have expressed dismay that the original recommendations have been altered and they do not understand the Government's rationale. They have expressed to us that it is important for the sector to remain unified to find a solution that is practical, effective, and fair – HWEN.

7. Our farmers also recognise that introduction of a farm-level levy pricing mechanism has a connection to greenhouse gas targets – both for the 2030 and 2050 targets for methane and the 2050 target for long-lived gases. While greenhouse gas targets are not the subject of this consultation, they are inextricably linked by virtue of the Government's intention to price agricultural greenhouse gases to meet both the targets, and the Climate Change Commission's five yearly carbon budgets. We believe that the trajectory chosen to 2050 must be founded on robust science and must be transparent in the inherent normative choices and trade-offs that are made by decision makers. We endorse the mandated review of the Zero Carbon Act's climate targets in 2024, which must include the significant new science that has emerged on better measurement of the warming impacts of short-lived gases.

8. We recognise the dairy sector's responsibility to play its part in contributing to New Zealand's climate change commitments. DairyNZ believes that the Government needs to amend key elements of its proposal to ensure effective and more equitable outcomes, and that deliver for the environment both in New Zealand and globally.

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[1]Mazzetto, A. M., Falconer, S., & Ledgard, S. (2022). Mapping the carbon footprint of milk production from cattle: A systematic review. Journal of Dairy Science. **https://doi.org/10.3168/jds.2022-22117**

Summary of Recommendations

9. In response to this proposal, DairyNZ, Beef + Lamb New Zealand, and Federated Farmers have agreed on nine core principles which we believe are critical to ensure positive outcomes for farmers and the agriculture sector. The Government's proposal fails to meet these principles and creates a system that would have unnecessary negative impacts on agriculture and the wider New Zealand economy. The nine principles and our associated recommendations are as follows:

1. ***The methane price should be set at the minimum level needed and be fixed for a five-year period to give farmers certainty.***

Price-setting: With regards to the price-setting, Government should adopt:

- A collaborative governance approach for levy rate and price-setting.
- Principle of minimum level required to fund sequestration, incentive payments, research and development, and a contribution toward administration costs.
- A price ceiling in in the first five years of the scheme to provide investment certainty for farmers.

Emissions pricing: Pricing should begin from June 2025 to better reflect the farming calendar year. Pricing could be back dated to meet legislated pricing milestones, rather than seeking a 6-month delay to pricing.

2. ***The future price should be set by the Minister on the advice of an independent oversight board appointed by all HWEN partners.***

Governance: The agriculture sector and farmers should be more than consulted on price-setting and the re-investment of the levy back into the agriculture sector.

Price-setting: There should be a requirement to balance broader socio-economic factors in setting levy rates and these factors should be embedded in legislation.

Price-setting: The levy price for nitrous oxide should be de-linked from the NZ ETS price to recognise its own, distinct emissions reduction trajectory.

3. ***All sequestration that can be measured and is additional should be counted. We stand by what is proposed by the HWEN partnership on sequestration.***

Sequestration: Government should adopt the HWEN partnership proposal to sequestration. This includes recognising and rewarding 'additional' on-farm sequestration from a wide range of both permanent and cyclical vegetation.

Sequestration: The research to measure and justify inclusion of on-farm plantings in the NZ ETS is accelerated.

4. ***Any levy revenue must be ringfenced and only used for the administration of the system, investment in R&D, or go back to farmers as incentives. Administration costs must be minimised.***

Levy revenue: Industry should be involved in setting strategy for the use of farmer levy money as per the recommendations in HWEN. The system should not intend to create a surplus, all revenue should be reinvested back into the agricultural sector and not on erroneous other activities.

Establishment costs: Administration costs for the establishment and operation of an emissions pricing system should be split between the Government and farmers and growers based on the relative benefit received, alongside existing government guidelines.

5. ***Farmers should be able to form collectives to measure, manage, and report their emissions in an efficient way.***

Collectives: Government should enable the use of collectives for all farmers to help deliver on the Government's emissions reduction plan for the agriculture sector.

6. ***The system must incentivise farmers to uptake technology and adopt good farming practices that will reduce global emissions.***

Synthetic N-fertiliser: This should be priced at farm-level.

Government delivery: The Government should clearly signpost delivery of a farm-level levy scheme and be held to account for achieving milestones and outcomes.

7. ***Farmers who don't have access to mitigations or sequestration should be able to apply for temporary levy relief if the viability of their business is threatened.***

Transition assistance: The Government should adopt the HWEN recommendation for case-by-case levy relief.

8. ***We will not accept emissions leakage. The way to prevent that happening is by getting the targets, price, sequestration, incentives, and other settings right.***

Emissions leakage modelling: Government should revisit its assumptions regarding emissions leakage as this is one of the bases for proposed policy settings. We urge the Government to report annually on any potential emissions leakage as the result of pricing policies as evidence and experience is gathered through implementation.

9. ***The current methane targets are wrong and need to be reviewed. Any target should be science-based, not political, and look to prevent additional warming.***

Target review: DairyNZ endorses the mandated review of the Zero Carbon Act's climate targets in 2024 and the significant new science that has emerged on better measurement of the warming impacts of short-lived gases. We seek that the target range specified for biogenic methane by 2050 is 'fair' and 'equitable' given the warming impact of methane as measured by an appropriate metric for short-lived gases.

10. Overall, the Government's proposal has failed to understand key elements of the HWEN recommendations, and how they work together to drive change without widespread detrimental impacts to farming. **DairyNZ strongly recommends the Government set aside its proposal and fully adopt the HWEN recommendations**. The industry took almost three years to devise and think about how all the elements work together and how the industry could drive meaningful change. The current Government proposal creates imbalance, uses price to drive change and will have severe impacts on the most GHG efficient producers of dairy in the world.

Introduction

About Dairy NZ

11. DairyNZ is the industry-good organisation representing all 11,000 of New Zealand's dairy farmers. Our purpose is to provide a better future for farmers by enhancing their sustainability, competitiveness, and economic viability. The dairy sector employs 50,000 people, generates almost $20b in export earnings, and comprises one third of all goods revenue.

12. The primary sector continues to be a major contributor of New Zealand's economy, accounting for one in seven jobs, over 80% of exports and 11% of GDP and was integral to maintaining a thriving New Zealand economy through the COVID-19 pandemic.

13. DairyNZ delivers value to farmers through leadership, and investment in research and development. We lead on-farm adoption of best practice farming, promote careers in dairying, and advocate for farmers with central and local government.

Supporting dairy farmers on emissions mitigation

14. We believe that all parts of the agriculture sector have a role to play in reducing greenhouse gases. This includes the dairy sector. DairyNZ has active programmes to support farmers as they transition to lower greenhouse gas emissions and meet New Zealand's climate change commitments.

15. Through innovation and investment farmers, scientists, and agriculture sector partners can ensure New Zealand dairy continues to remain a world leader, while making meaningful contributions to New Zealand's greenhouse gas mitigation targets. We seek to foster farmer's climate resilience and develop a future of farming with low greenhouse gas emissions in a manner that does not threaten food production and business and community resilience.

16. New Zealand currently has the lowest carbon footprint for milk production in the world. Our focus as a sector is to produce the most sustainable milk. Consumers and communities increasingly seek nutritious and sustainably produced food.

17. Each farm will have its own options to reduce emissions. Not every mitigation practice available can be implemented on every farm at once. Some farmers are already making these changes while other farmers have limited options. We are supporting our farmers to rise to the challenge but need more innovative and cost-effective technologies to reduce emissions, beyond what management change alone can achieve.

18. Our dairy farmers, largely, fund the cost of this transition themselves while continuing to operate as a profitable business. Most of our global competitors are making these shifts with support through continued subsidies. As government assess the impacts and trade-offs of this effort for climate change, they cannot lose sight of the economic and community implications and the need to continually monitor any emissions leakage concerns.

19. We are also mindful that farmers are dealing with a multitude of challenging issues, including greenhouse gas emissions, water policy, animal care, biosecurity, and labour issues. The Government acknowledges this leads to increased stress and mental health issues, but at the same time states that pricing agricultural emissions may also offer 'opportunities' without laying out any evidential base for that assertion.

20. It is important to dairy farmers that the sector's pathway to meeting emissions targets is adaptive and reflects what is realistically possible on-farm. The pathway should also recognise the economic and social costs of making these changes, as well as the potential impact on rural communities.

The He Waka Eke Noa Partnership Principles

21. In forming the HWEN partnership, the primary sector leaders committed to "*work in good faith with Government and iwi/Māori to design a practical and cost-effective system for reducing emissions at farm level by 2025. The primary sector will work with government to design a pricing mechanism where any price is part of a broader framework to support on-farm practice change, set at the margin and only to the extent necessary to incentivise the uptake of economically viable opportunities that contribute to lower global emissions.*"

22. The HWEN partners worked to design a system that is:
    1. ***Effective*** – reduces agricultural emissions in total and per unit of product and maintains a profitable primary sector.
    2. ***Practical*** – clear and simple system that minimises administration costs.
    3. ***Credible*** – scientifically robust (includes mātauranga Māori) and is transparent.
    4. ***Integrated*** – aligns with wider primary sector and government objectives and activities.
    5. ***Equitable*** – recognises early adopters and has 'equitable' impacts across the primary sector.

23. The Partners drew on feedback from farmers and growers and considered the challenges and concerns raised by government partners: the Ministry for the Environment (MfE) and the Ministry for Primary *Industries* (MPI). MfE and MPI officials worked in good faith to provide advice and support to sector and iwi/Māori partners on the development of an effective and workable agricultural emissions pricing system.

24. Designing a pricing system has been particularly challenging. The Partners worked hard to reach a *unified* view. There has been collaboration and compromise across a diverse primary sector. The HWEN recommendations finely balanced environmental outcomes with economic, farming, and societal considerations. HWEN meets the Government's environmental objectives, has industry ownership, and is agreed by all its signatories.

25. HWEN recommended four key and connected elements to achieve that objective:
    1. Incentive payments to those farmers who can implement new technology sufficient to reduce methane and nitrous oxide emissions to meet legislated targets for the whole sector.
    2. Farmer funded recognition for on-farm sequestration (essentially a farmer funded voluntary carbon market), that is not recognised within the NZ ETS, but still contributes to additional carbon sequestration and multiple environmental benefits.
    3. An affordable levy (with the price set against criteria) set only at the level required to fund sequestration, incentive payments, research and development, and a contribution toward administration costs.
    4. The agriculture sector having a role in price-setting and implementation to provide confidence to farmers through:
        - A collaborative approach for levy rate and price setting.
        - A requirement to balance a range of factors in setting levy rates in legislation.
        - A price ceiling to provide investment certainty for farmers in the early years of the scheme's establishment.
        - An agreed transition path so that individual farmers with no options to participate in incentive payments could apply for levy relief.

26. The Government's response to HWEN does not meet these principles and removes key elements of the proposal, oversimplifying the scheme to reduce complexity and effort for Government implementation. Instead, this places a financial burden on the farming community and removes the ability for agriculture to have a say in its own sustainable future.

DairyNZ's Farmer Feedback

27. Throughout February and March 2021, DairyNZ held 33 in-person events and 29 webinars to engage with farmers on HWEN recommendations. We received 2,111 individual submissions. Through this engagement farmers emphasised the importance of control and autonomy over their farm business, desire for sector influence over levy and price setting strategy, and the delivery of a fit-for-purpose pricing scheme that would incentivise change.

28. During the Government's current consultation period on pricing agricultural emissions, DairyNZ held a further 14 in-person events and 10 webinars. Over this period, we engaged and surveyed 1,008 farmers on their thoughts on the deviations from the HWEN recommendations under the Government's proposal.

29. Farmers, while on board with the need to transition to a lower emissions footprint, are anxious about the cumulative impact of new environmental legislation and regulations. Specifically, farmers are concerned that:
    - their work-to-date to reduce their environmental footprint and their current low emissions footprint by international standards is not being recognised
    - they are not being supported by government on their journey to lower emissions, and
    - they are not being treated fairly and equitably compared to other sectors of the economy, nor internationally.

30. Farmers are concerned about remaining internationally competitive, and that the Government needs to take care to avoid emissions leakage (i.e., shifting production to less emissions efficient producers offshore). Farmers want to get the farm level pricing system right, from the beginning, and in one step.

31. Farmers are deeply concerned about the sector and economy-wide impacts of the Government's proposal. They feel bewildered at the willingness to impede the most efficient producers of animal proteins and the number one export earner for the New Zealand economy. Farmers are frustrated that, while this levy will reduce production in New Zealand, it will also have a net negative impact on the environment through emissions leakage.

> Farmer feedback:
> "In the Government's own modelling, they indicated that their proposed policy would result in emissions leakage. This makes absolutely no sense."

32. In surveying the 1,008 farmers we engaged with:
    - 95% believe that governance representation is important or extremely important
    - 99% think that more on-farm vegetation and plantings should be recognised
    - 94% think that the price setting for methane should be guided by additional criteria
    - 87% think that the price of nitrous oxide should not be linked to the NZETS
    - 96% think that levy revenue raised should only be spent within the agriculture sector
    - 93% believe that the ability to form collectives would better enable them to manage their on-farm emissions
    - 94% preferred pricing synthetic nitrogen fertiliser at farm-level

33. We note the Climate Change Commission's own advice on agricultural emission's pricing criteria, including the principle of "broadly supported" i.e., the policy has sufficient buy-in from the sector and is seen as reasonable by New Zealanders, it is very clear that the Government's proposal does not have industry and farmer buy-in as recommended by the Climate Change Commission.[2]

[2]See page 66 of the Climate Change Commission's report **Progress towards Agricultural Emissions Pricing**

Māori Hui Feedback

34. Māori farmers are an important part of our dairy sector both as business owners and landowners; there are over 47,000 hectares of Māori land in dairying. DairyNZ hosted a designated hui and engaged with key Māori farmers, Iwi, and stakeholders throughout the duration of the Governments consultation. Key issues for Māori farmers we met and/or surveyed:

35. **Representation and Governance:**
    - It is crucial that Māori are better represented in important matters such as climate change.
    - There needs to be a united approach, across all sectors including Māori, with a single voice and a strong connection to grass roots.
    - Some farmers do not see the inclusion of a separate Māori governance structure as vitally valuable in the operable emissions pricing scheme.

36. **Sequestration and Collectives:**
    - Sequestration needs to include all carbon that is additional.
    - Māori farmers surveyed strongly believe that more on-farm planting and vegetation should be recognised in sequestration.
    - The Government's current proposal fails to recognise landowners with native blocks and other undeveloped and under-developed land, penalising those early adopters. The relative development status of Māori land has been ignored (e.g., post-settlement assets are still developing and recovering from development and debt).
    - There are over 570,000ha of Māori land in native vegetation accumulating additional carbon every year, these areas are considered 'customary farms' to Māori providing, kai, maara kia, tuna, manu, Rongoa – these areas are 'farms'.
    - Sequestration for additional carbon from pre-1990 whenua should be correctly recognised and included in the emissions scheme.
    - Leased Māori land has been ignored throughout the emissions pricing process, this could include as much as 150,000ha or 10% of all Māori land. This failing puts these landowners at considerable, inequitable risk.
    - Collectives need to go beyond the Government's current proposal; collectives should not be limited to Māori land only, all whenua throughout Aotearoa should be eligible.
    - The emissions pricing scheme needs to include the ability to trade sequestration between properties and collectives to ensure efficient use of all available carbon within Aotearoa.

37. **Pricing and levy:**
    - Māori farmers surveyed feel that the pricing of methane must consider more than the limits and targets and must include modelling of the cost-of-living impacts (including differential socio-economic factors), economies of scale, and economic multiplier effects.
    - Levies must be charged net of sequestration and paid in retrospect of income earned within the season completed to smooth cash flow and banking impacts.
    - Pricing needs to be based on scientific imperatives not political imperatives.

38. **General:**
    - Support for all aspects of the joint statements of DairyNZ and Beef + Lamb New Zealand, Māori feel that the settings proposed by the Government, including the significant shortcomings apparent in the modelling and consultation used in considering the impacts, require that the Government should not proceed until corrections are made and can be clearly understood.
    - Need better representation on these important issues. There needed to be a united approach, across sectors, with a single voice (proportional to industry representation) and a strong connection to grass roots.

Our Key Concerns with the Government's Pricing Proposal

1. The methane price should start at no more than 5c per kg, be capped at 8c and fixed for a five-year period to give farmers certainty.

The use of pricing to drive change – The levy should be set only at the level required to fund sequestration, incentive payments, research and development, and a contribution toward administration costs.

39. While the Government's proposal uses similar methane prices to the HWEN recommendation, and uses incentive payments for technology, something has led to an imbalance in the Government modelling. The methane price itself drives substantial land use change and sector impact that the Government has not explained. This leads to the Government's proposal exceeding on the emissions targets with widespread impact on the sector. The Government's proposal appears to use price to drive change. Emissions pricing is not the primary driver of change in the HWEN system. In the HWEN system, pricing is the means to fund the activities that will support farmers and growers who can make the changes needed to reduce emissions to the legislated targets.

40. Creating incentives and opportunities to reduce on-farm emissions requires a broader approach and framework than just focusing on a system for pricing emissions. HWEN developed a framework that included guidance, support, and tools to help farmers and growers measure their emissions and make informed decisions on actions to reduce or manage their emissions. Any emissions management approach must also support farmers' and growers' resilience to changing market drivers and climate conditions.

41. HWEN Partnership modelling highlighted that this system could be effective in reducing emissions in line with targets while maintaining a viable productive primary sector. The Partnership recognised that a high price on emissions alone would result in unacceptable damage to the New Zealand agricultural sector.

42. By removing and watering down key aspects of the Partnership's interconnected recommendations, the Government proposals have shifted this balance and raised significant concerns that there is too much focus on price, rather than incentives, and not enough checks and balances to support the objective of reducing emissions in line with targets while maintaining a viable productive primary sector.

43. The Government proposal states that the levy is expected to raise significant revenue at the prices and levels of uptake that have been modelled, sufficient to cover incentives for mitigation technologies and practices, with a surplus of $100 million to $140 million remaining. Therefore, the price should be set at the minimum level. Any surplus revenue must not be spent on other Government priorities.

44. It has been suggested by Government that dairy farmers may just pay the levy and carry on without reducing emissions. This comment mis-represents the HWEN approach. Firstly, all farmers can choose to pay, reduce, or offset their emissions. This is the result of ruling out grandparenting capping at a farm level. Secondly, it is most likely that dairy farmers will lead the way on emissions reductions through technologies that will have material impact, such as inhibitors, which are most easily used on dairy farms.

There should be a price ceiling in in the first five years of the scheme to provide investment certainty for farmers.

45. The Government is seeking feedback on whether the biogenic methane levy should be updated annually or every three years. We recommend a price-ceiling for the first five years of emissions pricing.

46. It is critical to minimise price uncertainty to give farmers confidence to invest in the activities that will support emissions reductions and farm viability. Setting a range enables flexibility to adjust as needed to avoid build-up of levy surplus or deficit. This would be consistent with the way government manages other levy income accounts. Changes to methane price within the range could be made in consultation with the oversight advisory body within the 5-year period.

Farmer feedback:

"We have enough variables in farming already; we need certainty on price going forward."

2. The future price should be set by the Minister on the advice of an independent oversight board appointed by all HWEN partners.

47. Sector expertise and knowledge must be leveraged to ensure effective decision making in governance of the pricing system. The price setting framework must allow for consideration of sector circumstance, socio-economic factors, and individual emissions reduction pathways of different greenhouse gases. The sector is best placed to provide considerable expertise, technical knowledge, and real-world data into this price-setting framework.

A lack of Enhanced Collaboration

48. The Government's pricing proposal removes a partnership approach to price-setting and governance. We believe that the agriculture sector and farmers should be more than consulted on price-setting and the re-investment of the levy back into the agriculture sector.

49. The Government's proposal for pricing agricultural emissions fundamentally changes the role of the sector as outlined in HWEN. It moves away from a model of enhanced collaboration to one of partial consultation. The impact would be to reduce the agriculture industry from being a partner with Government on reducing emissions, to being little more than a bystander directed by Government. Given the impact the pricing of agriculture emissions will have on the sector and the economy, DairyNZ believes it is unacceptable to relegate the sector in such a way.

Farmer feedback:

"The Government has a poor track record of consultation, so we need to be at the table to ensure we are heard."

50. The need for the sector to be closely involved in the Governance of both the design and implementation of emissions pricing and reduction action is illustrated in Government's modelling. Despite attempting to replicate the HWEN recommendations, the Government modelling has made changes to the settings and as a result has created a gross overshoot of the methane reduction targets, widespread land use change and disruption to farmers and the economy and slow uptake of mitigation technology. All of these go against the HWEN design and outcomes.

51. Our proposed role for the sector oversight, strategy and implementation of agricultural pricing would give the sector a voice, representation, and ownership of this complex set of issues. It was clear within HWEN the distinct role that Ministers and Government would have vis-a-vis the sector i.e., Ministers would set prices. In surveying our farmers, 95% of them stated that sector representation in governance is either important (8%) or extremely important (87%).

Farmer feedback:

"Partnership between the Government and sector is important to ensure we take all farmers on the journey towards reducing their emissions, and we target the scheme in the most effective way." And "Us farmers, we have the knowledge of what would be effective and viable. Surely it makes sense for us to be at the table."

52. From our survey, farmer's prioritised three key roles for sector:
    - Input into the activities of the implementation agency;
    - To advise on how their levy revenue would be spent and reinvested back into the sector; and
    - Enhanced collaboration between the sector and Ministers in decision-making processes.

53. Sector Partners have been consistent throughout the HWEN process that the most important objective in designing decision making processes is that good quality evidence and science-based decisions are made. Considerable expertise, technical knowledge, and real-world data sits within the sector, and we want to ensure that this is leveraged to support modelling, the understanding of potential impacts, and ultimately effective decision making. This supports confidence of those affected by the decisions and better overall outcomes.

54. It is recommended an oversight board is established that would work closely with the Independent Māori Board and sector bodies to provide advice to Ministers on the appropriate levy rates, the price of sequestration, and the value of incentive discounts used to incentivise the adoption of mitigation technologies. This is in addition to a core role the sector sees itself playing in providing advice on how recycled revenue will be used.

55. It is important to emphasise that this is not about the sector setting prices for itself. We acknowledge the need for independence and transparency, and the System Oversight Board would be an independent body with the capabilities required to make high-quality evidence and science-based decisions. The Government could still receive advice on pricing from the Climate Change Commission and Ministers would still be the ultimate decision makers, but it is critical that Ministers also have the benefit of expertise and sector-specific knowledge to inform their decision making.

56. We have concerns that the Government's proposal giving too much influence with the Climate Change Commission and does not have enough agricultural expertise or representation. DairyNZ believes that the way consultation is undertaken with the sector and prices are set should be explicitly legislated for.

Singular Focus on Pricing Biological Emissions – Methane

57. The singular purpose of the Government's pricing proposal is to meet carbon budgets and emissions targets with no due consideration for other consequences.

58. HWEN set forward a proposal, that like Te tatai utu o nga tukunga ahuwhenua, gave Ministers responsibility for setting the price on methane emissions. However, the Government's proposal side-lines the role of the agriculture industry and elevates that of the Climate Change Commission.

59. To be clear, the sector never sought to set prices (as has been incorrectly implied by some parties), this was always clearly the purview of Ministers. The sector's role would give representation and voice to other considerations when setting levy rates (whereas the Climate Change Commission has a much narrower focus to advise on carbon budgets and emissions targets). While the Climate Change Commission is required under the Climate Change Response Act to consider, where relevant, other matters (e.g., the likely economic effects; and social, cultural, environmental, and ecological circumstances, including differences between sectors and regions), these matters are secondary to meeting emissions reduction targets.

60. Placing the Climate Change Commission as the lead influence on pricing greatly concerns DairyNZ. The Commission's primary focus thus far has been on emissions reductions and driving towards targets, and

carbon budgets which overshoot legislated targets. There needs to be greater consideration of the nature and trade-offs of any transition for the agriculture sector and its wider economic and societal impacts. DairyNZ does not feel that the Commission is placed to do this well because of its narrow focus.

61. HWEN focused on setting prices to create a circular fund that would be used to pay for the sequestered carbon, mitigation technology and other incentives that would help drive emissions changes on-farm. The Government's model effectively proposes to set a price for methane that will force farmers to destock or change land use away from livestock farming. In essence the partnership approach is to incentivise change, using farmers levy revenue to create behaviour change and enable technical advancement. The Government approach appears to adopt a blunt policy response by pricing out marginal farmers through a tax that will force them away from farming.

62. HWEN recommended a broader set of criteria for levy setting because of concern that the targets may not be achievable in a way that is economically sustainable for the country, and/or in a way that lowers global agricultural emissions (at least on the basis of current assumptions about mitigation technology). In surveying our farmers, 94% of them thought that setting the methane levy price should be guided by additional criteria. One farmer said:

> Farmer feedback:
> "Pricing must consider the wider picture when setting the price, as we do when making on-farm decisions."

63. DairyNZ believes that there should be a requirement to balance the following factors in setting levy rates and that these should be embedded in legislation. We propose the following set of criteria to guide decision makers when determining levy prices:
    - Trajectory of emissions reductions towards emissions targets.
    - Availability and cost of (current and future) on-farm mitigations.
    - Social, cultural, and economic impacts on farmers, regional communities, and Māori agribusiness.
    - Best available scientific, mātauranga Māori, and economic information.
    - Avoids production reductions that may lead to emissions leakage from moving production offshore.

Nitrous Oxide pricing should be uncoupled from the NZ ETS

64. HWEN recommended setting a unique price for agricultural long lived gas emissions at a level required to fund the total amount of sequestration recognised in the system, fund incentive discounts for approved actions for nitrous oxide reduction, fund research and development for nitrous oxide reduction and cover a share of administrative costs.

65. This reflected an assumption that current and future eligible sequestration under HWEN, plus uptake of available technologies to reduce nitrous oxide emissions, represents a credible plan for primary sector long-lived gas emissions until 2028. A primary sector strategy would be needed to determine a longer-term pathway.

66. The Government's proposal is to link the levy price for long-lived agricultural gases, including nitrous oxide emissions, to the price of NZUs in the NZ ETS market. The Government's rationale is that this reflects an already market-determined price and provides a transparent and practical basis for determining the long-lived gas levy price.

67. Under the Government's proposal the price would initially have a 95% proportional discount which would reduce by 1% point per year. The price would be updated annually to keep it in-line with trends in the NZU price

and capture the phase-out of the proportional discussion each year. We note from the Cabinet paper that the Minister for Climate Change seeks to phase down this proportional discount more aggressively.

68. In surveying our farmers, 87% of them thought the nitrous oxide price should be set independently from the NZ ETS.

69. DairyNZ proposes that the levy rate for long-lived gas emissions will initially be set at the level required to:
    - Fund the total amount of sequestration recognised in the system.
    - Fund incentive discounts for approved actions for nitrous oxide reduction.
    - Fund research and development for nitrous oxide reduction.
    - Cover a share of administration costs.

70. In 2028, the intent of the HWEN proposal is that the price for long-lived gas emissions will be set based on the cost of reductions and offsetting required to achieve any sector strategy on reducing long-lived gas emissions.

71. An important principle underpinning the HWEN recommendations is pricing emissions only to the extent needed to drive the practice change wanted, rather than risk charging more than needed to achieve system objectives.

72. In their advice to Government on emissions budgets, the Climate Change Commission set out illustrative scenarios on what budget achievement could entail across the different greenhouse gases. These illustrative scenarios show CO2 emissions from the industrial processing, transport and energy sectors is expected to make significantly deeper cuts than nitrous oxide emissions to meet net zero emissions of long-lived greenhouse gases by 2050. Across the three budget periods carbon dioxide is recommended to make cuts of 10%, 26% and 56% respectively, while nitrous oxide cuts required are 5%,11% and 17%.

73. This separate trajectory for reductions of nitrous oxide means that linking the price of nitrous oxide emissions to the carbon price will provide a more onerous burden on nitrous oxide than is necessary to meet the emissions budget and net zero 2050 target.

74. Government's modelling shows that scenarios linked to NZ ETS unit prices result in significantly higher emissions reductions than required by targets or the emissions budget and with substantial negative impacts on production levels.

75. DairyNZ recommends that the levy price for nitrous oxide should be uncoupled from the NZ ETS NZU price to recognise its own, distinct emissions reduction trajectory.

3. All sequestration that can be measured and is additional should be counted. We stand by what is proposed by the HWEN partnership on sequestration.

Sequestration is important and must be recognised

76. The Government agrees that on-farm sequestration is important but has delayed implementation, narrowed options, and has given no guarantee of future delivery.

77. To achieve balance in pricing agriculture emissions the HWEN recommendations include payments for vegetation on-farm that aren't included in the NZ ETS but do sequester carbon. The Government's proposal acknowledges that vegetation on-farm does sequester carbon but has set such narrow parameters for what will be accepted that it undermines the whole HWEN proposal.

78. The Government's proposal would give farmers less options to offset their emissions, and with emission reducing technology not yet widely available, would severely limit the actions they can take. Meanwhile, the ever-increasing NZ ETS NZU price is seeing wholesale conversion of farmland to forestry. This is a concern to our farmers; they are worried about the impact of exotic afforestation and carbon farming on their communities and the primary sector.

Farmer feedback:

"I am seeing all around me in my catchment, lots of people are threatening to sell for trees."

79. In surveying our farmers:
    - 99% of farmers think that more on-farm vegetation should be recognised.
    - 70% want further grants and funding for active management of indigenous vegetation (for example, fencing or pest management).
    - 70% want support and advisors to help them integrate sequestration on-farm and manage sequestration contracts.
    - Farmers prioritised receiving additional financial recognition for freshwater and biodiversity outcomes, and further grants and funding for on-farm plantings.
    - Māori landowners strongly believe that more on-farm plantings and vegetation should be recognised. The Government's current proposal fails to recognise Māori landowners with native blocks and undeveloped land and penalises early adopters.

Farmer feedback:

"All active carbon sequestration should be recognised. A lot of people have done a lot of good work in recent year and very little of it has been recognised in the Government proposal."

80. The Partnership acknowledged that creating a system to account for the sequestration that takes place on farms would be difficult, however; the Government's proposal to only include riparian margins and active management of native vegetation shows a lack of effort and understanding.

81. The ability to include some farm vegetation in the NZ ETS could potentially work well as an alternative, however with no clear Government timeframes or milestones as to how that would be achieved, the Government's sequestration proposal has damaged equity considerations and neutered what HWEN advised.

82. DairyNZ wants the Government to adopt the HWEN partnership proposal for sequestration. This includes recognising and rewarding 'additional' on-farm sequestration from a wide range of both permanent and cyclical vegetation.

83. This should include rapidly implementing the enhanced measurement and verification science required to give confidence to all parties that sequestration is real and additive. This approach could be jointly funded by HWEN and Government. The Government's proposal discusses voluntary carbon markets (VCM). The HWEN proposal effectively is a farmer funded VCM and should be implemented with that mindset – aiming to move categories to the NZ ETS or maintain them in a further enhanced VCM including the introduction of external funding and linkages to market assurance.

84. Farmers have recognised the importance of the sequestration payments as part of the equitable criteria. Sequestration payments will in general flow from intensive farmers to lower intensity farmers, whereas the incentive payments for technology use will be the reverse. This balancing is an important factor creating the balance between effective and equitable criteria. It has been suggested by the Government that the money farmers are contributing to fund sequestration could be used to fund emissions reductions. While this is

theoretically true, it misses the point that sufficient methane revenue to achieve targets is raised independent of the levy to fund sequestration. These categories include:

- Indigenous vegetation established before 1 January 2008
- Indigenous vegetation established on or after 1 January 2008
- Riparian vegetation established on or after 1 January 2008
- Perennial cropland
- Scattered forest
- Shelterbelts
- Woodlots/tree-lots.

85. More generally, DairyNZ recommends that there is an immediate need for a sequestration strategy for New Zealand (and its subsequent implementation) that focuses on:
    - Sustainable land use ('right-activity right-place')
    - Resilient and thriving rural communities
    - Maintaining and growing food and fibre exports, and
    - Nature-based solutions (linking freshwater and indigenous biodiversity policy).

86. This strategy must be inclusive of HWEN sequestration (farm-level off-setting), the NZ ETS (general off-setting) and the VCM (general off-setting and in-setting) and explore the interconnections and opportunities between these.

4. Any levy revenue must be ringfenced and only be used for the administration of the system, investment in R&D, or go back to farmers as incentives. Administration costs must be minimised.

87. The use of levy revenue must be efficient, transparent, fair and must be exclusively used for the agricultural sector. The establishment of a farm-level system should not be solely farmer-funded using levy revenue. It is important that the majority of levy revenue is directed towards supporting farmers to lower emissions farming, instead of administration costs. A farm-level system is mutually beneficial for farmers and the government, and costs should be shared accordingly.

The use of levy revenue

88. The Government's proposal creates unnecessary surplus levy money, farmers should not have to pay more than is necessary to make change and fund incentives.

89. Under the HWEN proposal, revenue in a farm-level levy system is the residual amount once the incentive discounts and payment for eligible registered sequestration are netted off. When individual farmers and growers reduce their emissions there would be less revenue in the system as the levy is based on the level of emissions. When individual farmers use approved actions or technologies there would be a further reduction in revenue from the levy due to the incentive discounts. Feedback from farmers and growers strongly supported the proposed reinvestment of revenue back into research and development. They expressed a need for transparency over where the money is going, and proof of an effective plan to deliver technology to farmers.

90. Within HWEN, a critical role of the System Oversight Board (made up of expertise from the primary sector and Māori), is to set the strategy and direct the investment of levy revenue. The strategy for the use of revenue would be informed by the R&D plan and primary sector groups on the opportunities for research and development, support for adoption, and creating pathways to market for new products. It is important that all farmers and growers who pay a levy benefit equitably from the investment of that levy.

91. By removing the eligible categories of vegetation available to be counted the Government will collect more money through its split gas levy than is needed. The Government estimates this to be in the order of $100m to $140m per annum. The Government also proposes using this surplus generated for areas outside of what is proposed by HWEN, such as funding already announced Government investments in the agriculture sector and

possibly buying offshore abatement or overseas carbon credits. This is unacceptable. In surveying our farmers, 96% said that levy revenue raised should only be spent within the agriculture sector.

92. We note the Government's Nationally Determined Contribution will already commit New Zealand to sending ~$30 billion offshore to pay for its NDC (this is a Climate Change Commission estimate).

93. DairyNZ does not agree with the Government creating a revenue surplus and believes that it should adhere to the principles of the HWEN proposal which is to create balance and ensure all levy revenue is directly returned to the agriculture sector to incentivise change. These principles included:
    - **Justifiable and effective:** Funding is directed toward system objectives. i.e., reducing emissions and supporting/encouraging low emission farming while retaining the primary sectors viability and competitiveness
    - **Transparency and accountability:** There is transparency over the allocation of any revenue and that there is a clear and robust rationale for the funding.
    - **Equity:** Revenue is used for initiatives that benefit or have potential to benefit as many participants who have paid into the system as possible. i.e., initiatives will need to cover all who have paid into the system.
    - **Integrated and adding value to existing funding:** Funding is targeted at areas/constraints where there is a gap in, or limited, existing funding. i.e., to avoid duplication or crowding of existing funding.
    - **Enabling and user friendly**: Funding is flexible and adaptable. Application system and process is low cost and user friendly.
    - **Credible:** The funding must be based on robust science and matauranga Māori.

94. It is important to the agricultural sector that it has input into how the levy money is spent. The current Government proposal has watered down the industry's input into an advisory body for Government's consideration, and therefore the industry's buy-in and influence on what mitigations and incentives will work best on-farm. Our farmers would like to see a plan and strategy for levy re-investment. Including consideration of the capital and operational expenditure required to implement technologies on-farm.

> Farmer feedback:
> "Since we are funding the scheme, it should be clear to us where the revenue is going to be spent. The Government's proposal is murky and doesn't inspire confidence that the revenue is going to be spent on things which will actually improve or emission profile, not just make the Governments accounts look good"

95. DairyNZ supports industry involvement in setting strategy for the use of farmer levy money as per the recommendations in HWEN. The system should not intend to create a surplus, all revenue should be reinvested back into the agricultural sector and not on erroneous other activities.

Cost of Pricing System's Establishment must be shared

96. There are benefits to both the Government and farmers and growers from adopting a farm-level pricing system and this should be reflected in the cost recovery model.

97. The Government is proposing that the system is self-funded. It is understood that this means that the establishment and operation of the regulatory pricing system is intended to be solely covered by farmer participants in the pricing system.

98. DairyNZ recommends that the administration costs for the establishment and operation emissions pricing system should be split between the Government and farmers and growers based on the relative benefit received, alongside existing Government guidelines.

99. Farmers are provided an opportunity to have their farm specific emissions and a greater range of mitigations recognised which has the potential to lower their emissions cost.

100. The Government is provided an opportunity to accurately report NZ's agricultural greenhouse gas emissions alongside showing how it is meeting its international emissions reduction commitments and associated national targets.

101. There would also be a cost to Government if a processor-level levy were adopted (the backstop) so this needs to be considered.

102. The Auditor General and Treasury have both produced guidelines around cost recovery. These include principles of equity, effectiveness and efficiency, and justification and transparency.

103. The principles contained in these guidelines should be applied in combination in the analysis of where the costs and benefits of pricing emissions fall.

5. Farmers should be able to form collectives to measure, manage, and report their emissions in an efficient way.

Collectives must be recognised

104. The Government's proposal removes the ability for collectives, impacting the ability to streamline emissions reductions and pricing for farm businesses.

105. Of the farmers we surveyed, 93% of them thought that collectives would better enable them to manage their farm emissions.

> Farmer feedback:
> "Share the benefits of collectives across the industry, ensure everyone benefits, there are greater economies of scale together." And "Collectives are very important to farmers; we are all in this together."

106. A collective could work alongside a pricing system in several ways. It would allow farm enterprises to link their farms and submit a single return, or for individual processors to report on behalf of their suppliers. This could involve internal trading within the collective. Reporting emissions would be done at the collective level rather than by individual farms.

107. We are aware that some dairy processors are looking to incorporate a collective approach to managing on-farm emissions into their current environmental programs, which could deliver emission reductions for the dairy sector much faster than a pricing mechanism.

108. The Government proposes that only Māori farmers can form and enter collectives, with the possibilities of other farmers being able to do so in the future at some undetermined time. This appears to be an oversight by the Government. Farm ownership models can be complicated and vary widely across the industry. By limiting the ability to form collectives to only Māori farmers the Government has not taken this into account.

109. The ability of farmers to form collectives could greatly enhance their ability to reduce their GHG emissions. For example, farmers in a defined geographical area could work together as a collective across several farms to reduce emissions in a catchment area, they should therefore be incentivised or rewarded for their actions collectively. This provision could also leverage the expertise and heft of the dairy processing companies and/or near farm entity.

Farmer feedback:

"The power of collectives to drive change is significant, why does the Government want to make life harder for us?"

6. The system must incentivise farmers to uptake technology and adopt good farming practices that will reduce global emissions.

111. The pricing system must be fit-for-purpose and enable farmers to have control and autonomy over their farm business. As farmers will be paying the cost of the Government imposed levy, which will impact on profit, revenue and create extra work on farm, it seems only fair that the Government creates a fit-for-purpose system, rather than having a piecemeal approach that creates worse outcomes for the agricultural sector. Government should implement a farm-level levy in one step. This system must allow individual mitigation actions on-farm to be recognised and rewarded to give farmers control over their farm emissions levy.

The proposed Government Delivery, Processor Level Levy Backstop and Commencement Date creates uncertainty.

112. The Government's proposal of a processor level levy (should they fail to deliver a farm-level levy in time) creates more uncertainty for dairy or all farmers and removes accountability from the Government.

113. The Government's proposal has tried to simplify the HWEN proposal. As we have already noted, this has completely unbalanced the proposal the industry made. This simplification appears to be about driving towards an implementation date of 1 January 2025. The Government proposes that, by mid to late 2023, the Ministers would recommend to Cabinet whether an interim processor-level levy should come into force in 2025. The Ministers would make this recommendation if the farm-level pricing system is not on track to be implemented by 2025. The assessment of which would be informed by progress made against key milestones including both system and farmer readiness.

114. To ensure this is achieved the Government has suggested that if it is unable to have a system to price agricultural emissions at farm-level in time it will introduce an interim step of split-gas pricing at a processor level, albeit outside of the NZ ETS.

115. The HWEN Partnership already investigated this idea and found that it would have worse outcomes for farmers, as it limits further their ability to impact costs directly on their farm. For the Government to design a simplified system, as it has currently, and then to claim it might not be able to deliver on it, and to give itself a way out to ensure it delivers on its own self-imposed timelines, is unacceptable to DairyNZ. As farmers will be paying the cost of the Government imposed levy, which will impact on profit, revenue and create extra work on farm, it seems only fair that the Government creates a fit-for-purpose system, rather than having a piecemeal approach that creates worse outcomes for the agricultural sector.

116. Of the farmers we surveyed, 83% of farmers do not think that the government should have a backstop option.

Farmer feedback:

"With the processor levy approach any expenditure to mitigate emissions on farm a complete waste, as it will not result in that farm paying less levy.", "Two systems waste money, choose one and implement it well.", and "Only mad people would agree to pay for the building of two houses, only to live in one for just a year."

118. DairyNZ strongly disagrees with the imposition of a processor-level levy backstop and seeks implementation of a farm-level levy in one step. If this means a delay to get to farm level in one step, then this should be considered to get the scheme right.

119. DairyNZ recommends, in respect of the farming calendar, to shift the pricing date 6 months as is proposed in the HWEN proposal.

Point of Obligation for Synthetic Nitrogen Fertiliser should be priced at farm-level

120. DairyNZ supports synthetic N-fertiliser being priced at farm-level. In surveying our farmers, 94% supported N-fertiliser being priced at farm-level.

121. The Government discussion document gives two options:
    - Fertiliser should be priced at farm level or
    - At supplier/ manufacturer level through the NZ ETS.

122. DairyNZ opposes having synthetic fertiliser priced through the NZ ETS. Pricing at farm level will create a better understanding for farmers of their total greenhouse emissions, and what actions they can take to reduce their overall emissions. Pricing through the NZ ETS is again using price to drive change.

123. The inclusion of synthetic N-fertiliser within the farm-level pricing system would better support whole of farm GHG emissions reduction decision-making. Noting the different targets for methane (% reduction) and nitrous oxide (net-zero), a farm-level pricing system would provide the following benefits:
    - Make it easier for farmers to understand their total nitrous oxide emissions and how synthetic N-fertiliser use can reduce these.
    - Allows for the interactions between the different farm management areas (stocking policy, feed consumption and type, and fertiliser use) to be better explored, and sustainable farm mitigation strategies developed that reduce both methane and nitrous oxide emissions.

124. Farm-level pricing is therefore more likely to result in enduring GHG reductions than pricing synthetic N-fertiliser through the NZ ETS. A farm-level pricing system also provides the potential to benchmark farm synthetic-N fertiliser emissions to support farmers with their emissions decision-making.

Farmer feedback:

"Pricing fertiliser at farm-level gives ownership back to the farm owner, provides opportunity for different management decisions."

125. There are significant government and privately funded research projects currently exploring how to minimise nitrous oxide emissions from synthetic N-fertiliser use. A farm-level pricing system would provide an opportunity to reflect this science and encourage best practice fertiliser use in the different NZ farming environments (landform, soil, and climate) and reward best practice use of fertiliser.

126. Farm-level pricing will also provide for the range of current and future synthetic N-fertiliser mitigation technologies, for examples incorporation, field application of inhibitors and precision placement. The NZ ETS can only recognise a change in fertiliser type and total synthetic N-fertiliser use.

7. Farmers who don't have access to mitigations or sequestration should be able to apply for temporary levy relief if the viability of their business is threatened.

Transitional Support

127. DairyNZ supports that Partnership approach in HWEN that recognises that there are specific farming systems and farm locations that do not have options to reduce their levy cost through sequestration (due to national and local body regulations) or approved actions to reduce emissions.

128. In those cases, it was agreed that as a transition measure finishing in 2030, any levy relief would be on a case-by-case basis, with strict eligibility criteria that includes:
    - access to sequestration (both NZ ETS and HWEN) is severely restricted by national and local body regulation and
    - no access to effective mitigation technologies and
    - where emissions pricing has had a severe impact on financial viability.

129. This would be regularly reviewed as mitigations are developed. The levy relief mechanism itself would be formally reviewed in 2028. This review would consider the need for a future levy relief mechanism.

130. We also believe that groups of farmers can approach the Agency for relief. However, given the heterogeneity of farms and farm businesses within any group, decisions would still be based on individual farm circumstances.

131. Where the levy price affects the viability of sections of the pastoral sector then this should be dealt with through the already agreed price setting decision making criteria, not through levy relief.

8. We will not accept emissions leakage. The way to prevent that happening is by getting the targets, price, sequestration, incentives, and other settings right.

Emissions Leakage

132. The Government's analysis overestimates New Zealand farmers greenhouse gas efficiency (the OECD model is not granular enough to acknowledge reality) and therefore underestimates any impact on emissions leakage.

133. Emissions leakage occurs when actions to reduce emissions in one country results in emissions rising in another. A difference needs to be drawn between emissions leakage (the shift of production and emissions from one country to another) and an increase in emissions which might result. Emissions leakage will not always cause an increase in global emission because of the interplay between sectoral emissions in any country, in particular advanced economies with economy-wide emission targets.

134. For a sector such as the New Zealand dairy sector - which is world leading in terms of emissions intensity (emissions per unit of product) and with a high proportion of product exported, any policy which results in a decline in production creates the risk of emissions leakage.

135. The Government's modelling predicts leakage from the dairy sector as a result of imposition of the farm-level levy (at 11 cents) of 37% - that is every tonne (CO_2 equivalent) of reduced dairy emissions in New Zealand will be offset by close to half a tonne of increased emissions offshore. For sheep meat, the Government's modelling projects leakage of 133%.

136. A report prepared for the HWEN Partnership (Resource Economics 2022) estimated (with a high degree of uncertainty) a potential for leakage of 7%, 15% and 30% from beef, sheep, and dairy respectively. We acknowledge that it is difficult to predict the risk of leakage with a high degree of confidence. That said, a climate policy instrument for which the only viable response is to reduce production at the expense of increased global emissions lacks credibility.

137. All efforts should be taken to design a policy that seeks to decouple emissions from production and by doing so minimise the risk of leakage. We consider that the Government may have underestimated the risk of emissions leakage for the dairy sector. This is because the Government's analysis (based on analysis from the Interim Climate Change Committee, the Climate Change Commission) assessed the risk of leakage from the dairy industry to be low because any decrease in production would be likely offset by increased production in Western Europe or North America. We are less confident of that assumed supply response. Looking ahead, a shortfall in milk production may also be met by increased production (for their own domestic consumption primarily) in countries in Asia, Central America, and Africa.

138. In addition, we have a number of specific concerns with the OECD/FAO model used by MPI. In particular:
    - The FAO Tier 1 emissions data is not an appropriate basis for modelling potential emissions leakage risk because it is known to significantly overestimate the emissions intensity of New Zealand milk due to its use of calculation defaults that are based on northern hemisphere barn-fed systems, and which do not accurately reflect New Zealand pasture-based farming models.
    - The OECD/FAO model aggregates New Zealand with Australia in one region, which makes it impossible to ascertain whether results are driven by the fact of Australia being a larger economy.
    - The OECD modelling emphasizes that the availability of abatement technologies is a decisive determinant to reduce leakage. However, the MPI/Landcare Research report as well as the Partnership evidence show that technology may have a limited role on mitigating net revenue and production losses due to emissions pricing. This contrasts with the OECD modelling and questions the validity of the Government's conclusions regarding New Zealand as being at "very low" risk of leakage.

139. DairyNZ recommends that the Government revisit its assumptions regarding emissions leakage as this is one of the bases for proposed policy settings. We urge the Government to report annually on any potential emissions leakage as the result of pricing policies as evidence and experience is gathered through implementation.

9. The current methane targets are wrong and need to be reviewed. Any target should be science-based, not political, and look to prevent additional warming.

140. The introduction of a farm-level levy pricing mechanism has a connection to greenhouse gas targets – both for the 2030 and 2050 targets for methane and the 2050 target for long-lived gases. While greenhouse gas targets are not the subject of this consultation, they are inextricably linked by virtue of the Government's intention to price agricultural greenhouse gases to meet both them and the Climate Change Commission's five yearly carbon budgets.

141. The agriculture sector has long called for a split gas approach, including for reporting warming impacts against temperature targets[3]. While the pricing system is separate, self-contained, and agnostic to targets (it simply does what it's programmed to do) it is the messenger by virtue of the targets for the speed and ambition of the transition to lower emissions. We believe that the trajectory chosen must be founded on good science and must be transparent in the inherent normative choices and trade-offs that are made by decision makers.

142. The 2024 review of Zero Carbon Act targets will be an important time to reassess what we know about New Zealand's efforts and the latest science regarding the treatment of methane as a short-lived gas. Farmers have asked for a farm-level, split gas approach within the pricing system. We are pleased that the Government has recognised a split gas approach within the pricing system itself and has not used the GWP100 metric for methane which overstates the warming impact of methane by 3-4 times when methane emissions are steady

[3]See **Letter to Ministers regarding reporting and monitoring of a split gas approach**.

and/or declining, as they are in New Zealand[4]. While it is admirable, this is not the end of that story because pricing will need to deliver on the trajectory of methane reductions out to 2050.

143. The government still monitors progress by aggregating emissions using the GWP100 metric to convert all emissions to Carbon dioxide equivalent (CO2-e), which the recent Intergovernmental Panel on Climate Change (IPCC) report noted provides an inaccurate comparison on warming contribution for short-lived gases (methane) and long-lived gases. Measuring climate impact is not just about emissions tallies, but the different species of gas and their temperature effect. Ignoring this science is like counting the number of banknotes but not their denomination. A national inventory where 48 percent of emissions are agricultural greenhouse gases does not equate to being a country where 48 percent of our contribution to temperature increase is derived from agriculture. It is important that the general public understand this.

144. Failing to consider the warming impact differences puts us at risk of overestimating the methane reductions we need to make as a country and creating unnecessary social and economic impacts as a result. It also means New Zealanders are not getting accurate or transparent information on which to base decisions about their own actions or actions that affect them.

145. We strongly support increased efforts to ensure all New Zealanders have a science-based understanding of the different atmospheric warming impacts of short lived and long-lived emissions and therefore understand the current, and proposed future, warming impacts of various GHGs.

146. New Zealand has domestic targets that allow us to work out how much warming New Zealand will cause, and this implies that if we achieve the mid-range of our legislated target range for biogenic methane, and net zero long-lived gases by 2050, then New Zealand will stop our warming in the 2030s, earlier than the United Kingdom, the EU, and the US. An evidence-based approach should not only report greenhouse gas emissions, but also the warming impacts of those emissions. DairyNZ seeks that the target range specified for biogenic methane by 2050 is 'fair' and 'equitable' given the warming impact of methane as measured by an appropriate metric for short-lived gases.

[4]We note in answer to a Parliamentary Written PQ that Minister Shaw argues that global methane emissions are still rising see **Question 36891 (2022)** hence the use of GWP100 is justified. We would note that New Zealand is not responsible for other nation's methane emissions and that methane emissions in New Zealand are falling hence agriculture's methane contribution to warming is reduce ng.

Conclusion

147. Overall, the Government's proposal fails to understand what the industry recommended through HWEN. It has failed to understand the key elements and how they all work together to drive the change without widespread detrimental impacts to farming. DairyNZ strongly recommends the Government fully adopt the HWEN recommendations.

148. The industry took almost three years to devise and think about how all the elements work together and how the industry could drive meaningful change. The current Government proposal creates imbalance, uses price to drive change and will have severe impacts on the most GHG efficient producers of dairy in the world.

Points of Concern about the Government's Modelling

149. **Baseline omissions – NPS-FM:** The baseline of the Government's modelling does not incorporate responses of farmers to the NPS-FM. The Report indicates that, as a proxy for the NPS-FM, land is retired from production due to fencing or the creation of buffer areas. But the NPS-FM also imposes limits on nutrients, which implies that farms may adopt management mitigation options that generate co-benefits on GHG emissions and changes in the economic structure of farms (e.g., stocking rate reductions, investment on irrigation systems). The baseline omits this set of responses of farmers, which biases the results of the agricultural emissions pricing scenarios. The Government should provide separate results for the NPS-FM impacts before the introduction of emissions pricing.

150. **Baseline calculations – ETS and afforestation:** Farm forestry and carbon sequestration payments from exotic forestry are part of the 2030 baseline. But the joint operation of the ETS and NPS-FM in the baseline imply land use changes toward forestry and, consequently, methane reductions. Therefore, it is not possible to identify the marginal impact of the proposed policy package.

151. **Disaggregation of GHG reductions:** The Partnership' modelling estimated that the 2030 methane target (reduction by 10% compared to 2017) would approximately be by 5% with BAU policy settings (including ETS) and an additional 5% due to the HWEN proposed policy package. In comparison, with the Government's modelling it is not clear how much of the forecast reductions are being driven by the Government's levy package, including incentive for scrub, and what is driven by BAU policy (specifically the NZ ETS settings). In addition, it is not clear how methane reductions across scenarios split between land use change, stocking rates reductions, and technology adoption.

152. **Incomplete modelling:**
    - With the Government report there is an inability to distinguish between profitability and productivity reductions resulting from whole-farm conversions from the sector and reductions occurring on those farms remaining in the sector.
    - It is vital for us to understand the number of sheep and beef farms that are predicted to leave the sector compared to the individual impact on farms remining in the sector. Knowing this would allow us to compare our analysis of the financial impacts of the proposal on individual farms, with the Government modelling results. Currently we cannot compare the two analyses.
    - In the Government modelling there is no scenario of the impact of the levy only, without the use of technology, technology incentives, or sequestration payments. This means that it is difficult to understand the impacts of the different components of the system on farming businesses and the sector, including under a worst-case scenario.
    - The modelling does not seem to compare the impact on rural communities of the changes to the rural sector. It is likely that there are flow-on effects of land use change on rural communities that could potentially result in further land use change. For example, several farm sales to forestry in a community could means the closure of rural schools and small businesses. This, in turn, may cause other farms to sell

up and leave the area/sector. The Government consultation document simply leaves these issues hanging by saying there could also be 'opportunities.'

153. **Overestimation of the baseline:** The baseline projection for 2030 entails an increase of about 450,000 hectares on dairy land. However, the industry has kept stocking rate and land use relatively static in recent years. The industry has shifted toward improving the productivity of cows (e.g., through genetic improvement). Hence, the baseline contradicts the reality of the industry. This may imply that productivity and farm efficiencies are underestimated so that the modelling results are unreliable. Consequently, uncertainty will permeate into the Government's model responses as it is not possible to assess the direction of the potential bias introduced by such a high baseline projection.

154. **Scrub as mitigation option – incomplete analysis:** The Government's modelling shows that a large share of sheep and beef land will switch toward scrub, but they do not differentiate how net-revenue changes split between farms staying in sheep and beef, farms shutting down operations, and farm-land areas categorised as scrub. This implies that the Government's analysis is incomplete because these significant impacts on land use spill onto rural communities, employment, and food security. A balanced and complete analysis should have addressed these aspects. The Government needs to explain what assumptions in the modelling drive the estimated 500k-1M ha of scrub increase.

155. **Sequestration:** The Government's modelling uses different sequestration rates to the HWEN modelling with no evidence to support the use of those lower sequestration rates. The Government's modelling shows that their proposed sequestration coverage would be essentially worthless to farmers because of the lack of coverage, eligibility criteria (in particular fencing costs) and low sequestration values. Our analysis supports that their proposal is essentially worthless.

156. **Very limited adoption of technology mitigation options:** The Government's modelling shows that high incentive payments do not result in a high rate of adoption of Bromoform bolus. Less than 1% of dairy land would adopt this option and the analysis does not identify the drivers keeping adoption low. The Government modelling also concludes that additional land enters dairy production from the uptake of technology (simply because farmers have adopted more profitable mitigation options through the incentive payments). This is an inconsistency in the assumptions of the modelling.

157. **All Government scenarios assume use of new technology:** We are interested in impacts of pricing where new technologies may lag (e.g., because they aren't commercialised in time or other barriers present themselves). If the levy price is set to the level required to achieve the emissions reductions in the modelled tailwind and headwind scenarios (from Table 11 of pp.28) and if currently commercially unavailable technology (e.g., mitigations 7,8, 10 and 11 from Table 1 and mitigations 3, 4 and 5 from Table 2) are excluded, what is the impact on net farm profitability and production?

158. **Farm-level costs:** The Government's modelling is at catchment level, but this analysis is not clear about the farm-level impacts on net revenue, land use, or stock units. The analysis shows land use changes in hectares, but reasonable assumptions could have been made to convert the modelling output into farm-level figures.

159. **Snapshot:** The Government modelling shows a snapshot of only one year. What are the implications of multiple years of the emissions pricing scheme? It is unclear whether a one-year snapshot accurately reflects the impact on farms of an ongoing (and increasing) cost. Similarly, the Government should explain how their modelling adequately represents participants facing capital, non-capital and economic costs when undergoing land use change.

Price premiums for carbon neutral products

160. The Government has said that "*Evidence can be found of demand for carbon neutral products in Aotearoa New Zealand's agricultural international markets and this may be reflected in price premiums for exports perceived to be carbon neutral. For example, it is estimated there is a positive impact of 11 per cent to 25 per cent on* the *profits of dairy farms that supply carbon neutral product*."

161. While there is more attention from customers and consumers regarding greenhouse gas management and emissions reductions, claims of price premiums/positive impacts on profits as a benefit of an emissions levy may be overstated and should be treated with caution. Theoretically, these premiums should already exist, even in the absence of a levy. As the world's most efficient greenhouse gas producer of dairy New Zealand should already be reaping these benefits. This is not an argument against price premiums *existing*, it is caution against the claim that an emissions levy 'helps' in that regard or that these premiums can be obtained across the volume of dairy products New Zealand dairy farmers produce. Our dairy processors are already cognisant and aware of these market signals and are already acting to position New Zealand farmers to take advantage of this.

Appendix A: HWEN recommendations

Recommendations are available at:
https://hewakaekenoa.nz/wp-content/uploads/2022/06/FINAL-He-Waka-Eke-Noa-Recommendations-Report.pdf

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