Submission by

to the

Ministry for the Environment

on

New Zealand's second emissions reduction plan discussion document

25 August 2024

— A BUSINESSNZ AND BUSINESSNZ ENERGY COUNCIL (BEC) SUBMISSION —

NEW ZEALAND'S SECOND EMISSIONS REDUCTION PLAN

Introduction and general comments

1. BusinessNZ and BusinessNZ Energy Council (BEC)[1] welcomes the opportunity to provide feedback to the Ministry for the Environment on its discussion document on the second emission reduction plan (referred to as 'the Plan').

2. We support New Zealand's net-zero carbon target. Climate change is a global problem. New Zealand contributes to this problem and has a responsibility to address it. New Zealand's businesses have a crucial role to play in achieving the reductions sought under the Paris Agreement.

3. Change in New Zealand is already well underway, with the government, policymakers, businesses, and individuals taking decisive action to reduce emissions. We would like to acknowledge the remarkable efforts of businesses throughout New Zealand in proactively addressing climate change and striving to become global leaders in sustainability.

4. Significant investments have been made, and numerous changes have been implemented. New Zealand's businesses remain committed to facing their plans head on, showcasing their success and competitiveness in a marketplace which increasingly places priority on sustainability and reducing emissions.

5. For this momentum to continue, the policy and regulatory environment must foster investment in reducing emissions. Policies should communicate clear investment signals and help eliminate regulatory barriers. The actions and policies of the government must therefore be cost-effective, evidence-based, and consider all trade-offs while safeguarding economic growth and living standards.

6. We believe the Government's approach in the plan reflects these considerations. We support the Government's focus on a net-based approach and least-cost pathway to achieving our climate targets. Underpinning this strategy, we support the key pillars of resilient infrastructure, credible markets, abundant clean energy, world-leading climate innovation, and nature-based solutions. As part of this strategy, cross-party support is vital. Bipartisan multi-party support improves certainty and durability, providing value, especially in infrastructure.

7. This submission provides comments, recommendations and possible actions on each chapter in the plan. Responses to each chapter also raises additional considerations to ensure New Zealand's business community can adequately invest, build and deploy efforts to achieve our targets. We look forward to continuing to work with officials and the Government to ensure the plan's success.

[1] More information about BusinessNZ and BEC can be found under appendix one.

Chapter 3 – Strengthening the Emissions Trading Scheme

8. **We <u>support</u> the ETS as the main mechanism for reducing net emissions at least cost**. The ETS remains a potent tool in internalising the future cost of emissions, signalling the scarcity of the environment's limit to withstand emissions. While at the same time, providing businesses and consumers the flexibility and autonomy to make the most cost-effective decision to reduce their emissions.

9. **We <u>support</u> the Government's intention to improve the credibility and regulatory certainty of the ETS**. Over the past four years, the price signal sent by the ETS, setting the direction of travel and the level of investment in new technology, has been weakened by persistent regulatory uncertainty. Uncertainty has been exacerbated by threats to the underlying structure of the ETS, risks to the property rights of forestry NZUs due to the 2023 ETS review and commentary pitting sequestration against gross emission reductions.

10. **The Government's pledge to not undertake large structural changes to the ETS, with the purpose to improve regulatory certainty, is <u>supported</u>.** The core principles and foundations underlying the ETS structure remain sound**.** This pledge is sensible as established regulatory regimes of which businesses operate under, followed by preserving the core functions of such regimes over time, is a vital prerequisite for business investment.

11. As part of the Government's pledge, **retaining no differential treatment of forestry NZUs in the ETS is <u>supported</u>**. This upholds the principle that the atmosphere cannot differentiate between one tonne abated at its source and one tonne sequestered from forestry, ensuring New Zealand follows the lowest cost pathway of both gross reductions and sequestration to achieve net-zero by 2050. This approach favours an outcome where we can achieve our target without it being more costly than it needs to be in the face of many social and economic challenges.

12. **We <u>support</u> the Government's decision to rule out vintaging NZUs**. Protecting the property right of an NZU holder to surrender a unit when they deem it most appropriate ensures participants have flexibility in reducing their emissions and follow their own reduction plans. Setting an expiry on units reduces their value and sets a time limit on when reductions should occur. It also contradicts with the fundamental principle that an unsurrended unit is an advantageous outcome for the climate, delaying emissions.

13. Despite the core structure remaining sound, with forestry remaining in the ETS, **we consider some changes should be adopted to ensure the ETS is fit for purpose and strengthened**. We believe one clear change should include the process for determining ETS price and unit settings.

14. Annual consultations on unit and price settings have repeated endless cycles of uncertainty. Speculation on what the level of units available at auction might be and the price corridor they might follow has not aided market stability. Participants speculate and question whether settings would be similar to, or depart from, the Climate Change Commission's recommendations. Constant tweaks to the ETS settings, based in part by the Commission's repeated recommendations to follow certain price paths and previous attempts to rebalance the ETS to favour gross reductions in sectors preferred by the Government, has followed a more costly pathway which has embedded uncertainty.

15. And as a result, the annual process has been made worse by constant calls for setting changes based on fluctuating market prices which no longer reflect a certain price pathway preferred by policymakers or politicians. This is unsustainable for proper market functioning. **We <u>believe</u> the Government's fundamental responsibility for managing the ETS is the alignment of available unbacked**

units at auction with our targets while ensuring carbon accounting is accurate and robust. The market must then be given time and the ability for efficient price discovery.

16. Constant tinkering to force a preferred price is unsustainable for a market tool as it is no longer a matter determined by supply and demand dynamics but also political and policy preferences, a far more difficult, if not a near improbable factor for ETS participants to forecast and predict.

17. Despite the current approach providing flexibility and an annual opportunity to reset the cap of unbacked units if amendments are required, **we <u>believe</u> the process for determining settings for five years ahead is too frequent**. Over the past three years, yearly setting amendments have regularly changed the outlook businesses operate under. There is a general expectation that setting changes are excluded for the first two years, unless due to special circumstances as described in the Act. This provides some confidence and reassurance.

18. However, yearly consultation and changes to the five-year, and possibly two-year outlook, provides a large shadow over final investment decisions that have paybacks longer than two to five years. This is especially true for emission reduction investments involving large sums and complex plans. Sovereign risk paralyses such plans and in doing so undermines the political durability of the regime.

19. **We <u>recommend</u> the sinking cap of unbacked units issued or allocated, once in accordance with New Zealand's emission targets, should be fixed and known to the market by way of legislation out to 2050, or at the minimum over the three budget periods out to 2035**. The market will then know what units will be available over a longer period.

20. The quantum of unbacked units would be set, and participants will adapt accordingly. Some may hedge or buy later. If the Government decides to adopt a more ambitious target in the future, especially if emissions come down faster than expected due to technology breakthroughs, the quantum of unbacked units could be reduced by amending legislation after consultation, a cost and benefit analysis and a national interest test to consider the economic impact of a more ambitious target.

21. The plan mentions the Government intends to limit the entry of new forests on productive land to account for concerns about forestry conversion. In recent years, **the ETS has been asked to do too much. Its role is to simply provide a price signal reflecting the marginal cost of emitting an additional tonne of carbon.** The resulting activities decided based on the price signal may result in externalities.

22. Distorting the price signal by rejigging the ETS for more gross reductions to resolve forestry externalities, in this case the impact of land-use conversions and risks to the Government's future obligations due to fire and weather risk, does not effectively address the externalities themselves. **Distorting the price to address the externality only undermines the tool itself.** The externalities themselves require their own separate measures. This approach is widely accepted in the economic literature, where separate measures are required to address a specific problem. [2]

[2] Tinbergen, Jan. 1952. On the Theory of Economic Policy. Amsterdam: North-Holland Publishing. Available at https://repub.eur.nl/pub/15884/

Land-class restrictions

23. Between constantly undermining the ETS by distorting the price signal for afforestation and the adoption of land-class restrictions on productive land for afforestation, the latter is preferred. However, we believe that this proposal requires an assessment of an evidenced problem before any intervention takes place. Foresters have proclaimed planting has reduced, driven in part by regulatory uncertainty resulting from the ETS review launched in 2023. The upcoming release of data on the provisional estimate of tree stock sales and forest planting in 2024 by the Ministry for Primary Industries (MPI) will help confirm whether planting has indeed plateaued and the extent to which foresters intend to plant.

24. Arbitrary and blanket changes to land-classes would likely impair the property rights of landowners. It is also uncertain to whether restricting certain land-classes would be effective in slowing down the rate of planting and whether this would be a desirable outcome considering the significant level of planting required to reduce New Zealand's net emissions.

25. It could risk constraining or restricting afforestation on land with low to very little risk of causing external costs upon public property or other landowners. In this case, restrictions would not be justifiable to the level of risk. If policymakers are concerned about fire and weather risks to forestry, we believe the most appropriate measure to address this risk is through bonding and insurance instruments. They would be best designed to reflect risk and internalise external costs. Internalising costs, including the cost of slash, would help incentivise better forest management and discourage planting on high-risk land. Such measures should be assessed on their own costs and benefits.

26. The plan mentions the Government's intention to investigate possible measures to improve the incentives for afforestation beyond the ETS. We believe that the ETS currently sends a sufficient signal to undertake planting. Complementary measures that provide additional incentives may not be required. The largest barrier to the signal sent to landowners to undertake planting has been persistent regulatory uncertainty. Participants voiced their unwillingness to plant after the ETS review was announced in 2023.

27. The Government's pledge to restore regulatory predictability and protect property rights of forestry participants in the ETS should be sufficient to incentivise afforestation. However, there is a notable risk that successive Governments may revert course, undermining investment decisions. This highlights the importance of durable policy settings in incentivising afforestation and achieving New Zealand's targets over an extended time.

Integration with international schemes

28. Aligning the ETS with other schemes will involve the identification and analysis of desirable markets the NZETS could integrate with in the future. This could be undertaken by the Climate Change Commission. **We strongly encourage the Government to continue to advocate internationally for a level playing field for carbon pricing.**

29. Dispelling the uncertainty around the quality of international units is the most pressing matter – businesses will not be willing to purchase units if there is any doubt about their ability to subsequently surrender them (regardless of a quantitative limit). To dispel this uncertainty, government should pre-identify which units' businesses could surrender post-purchase and publish this list.

30. We suggest that getting this process underway should be a high priority and urge the Government to accelerate its work of identifying options for accessing international carbon markets (with safeguards on integrity). Again, bipartisan support will be important to ensure integration is durable.

Improving market governance

31. Restoring market credibility is not isolated to retaining ETS settings for longer. Measures to improve the governance of the ETS is important to restore credibility and ensure it is fit for purpose as the market matures. **We <u>support</u> the Government's work on strengthening ETS market governance.** Most trades are bilaterial, with other trades occurring on carbon trading platforms. The visibility of price on these platforms is not particularly clear and open to the public. Transparency of trades, including the volumes traded, and the price remains limited. This could possibly be an issue going forward as it relates to risks stated below:

32. We highlight that there are several risks under the current approach to market's functioning:

    - Inadequate, false or misleading advice to NZ ETC users
    - Conflicts of interest involving the New Zealand Emissions Trading Register
    - Potential lack of transparency, oversight and monitoring of trades in the secondary market
    - Credit and counter-party risks
    - Insider trading and information asymmetry
    - Manipulation of NZU prices
    - Money laundering and financing of terrorism.

33. An alternative model that could be assessed by the Government is a central exchange model. With this model, which are regulated sufficiently and have adequate controls in place, could address the risks noted above. Exchanges can provide more transparency on volume and price, a similar process to purchasing and selling shares and other securities. It is common practice for ETS units to trade via exchanges overseas. Most volume in the European Union is traded through exchanges, with very small volumes being traded over the counter. This process improves transparency, while managing clearance and counter-party risk. A default during the process of NZU trading has not occurred in New Zealand before.

34. An exchange model could also ensure adequate controls and settings are in place that would likely improve credibility for large financial institutions to participate in the NZETS. Improved credibility through an open and transparent process could improve participation and therefore a more efficient price discovery.

35. However, rather than improving liquidity, establishing a central exchange is a significant intervention which could lead to market disruption and confer market power on the chosen exchange operator in a market with three incumbent secondary market operators. The problem must also be sufficient to justify an intervention of this size and magnitude that could undermine market confidence, market function and participation in the ETS.

36. Considering the varying costs, benefits and unintended consequences of this option, **we <u>recommend</u> the Government undertakes a rigorous cost and benefit analysis of a central exchange model as part of their work programme on improving market governance arrangements, assessing its merits and caveats.**

37. The annual release of advice on unit and price settings contains market moving material, including advise released by the Climate Change Commission. Officials and Minister who hold this sensitive information could have the ability to front the market and engage in trading.

38. We are unaware of a Code of Conduct placed on officials and Ministers, with no knowledge of its detail. With uncertainty about the current robustness of market monitoring and transparency about the level of controls currently in place within relevant ministries, the public release of controls currently in place on relevant parties would be valuable in boosting credibility.

39. The possible existence, or perception of, insider trading risks could undermine market credibility and function. There are multiple options that could be considered and assessed. Blackout periods where NZU purchases by interested parties cannot be made a month before a market sensitive announced seems sensible. Carbon fund purchases could be restricted by interested parties altogether. Alternatively, purchases outside a certain window could require justification and subsequent approval. Some of these options could already be in place, highlighting the value of sharing current procedures publicly to counteract any perceptions about insider trading risk.

40. **We also <u>recommend</u> improving the process and timeliness of ETS announcements.** Ministers and officials have had a track record in the past of releasing significant market moving announcements without sufficiently informing the market of an announcement in advance. Better signalling any such announcements would help participants prepare. Releases should occur before markets opens. Halts to NZU trading before surprise announcements could also be valuable, providing participants time to digest relevant news.

Strengthening the power of industrial allocations to drive emission reductions.

41. **We <u>endorse</u> the Government's approach to industrial allocation policy to improve certainty and ensure the risk of carbon leakage is adequately addressed.** Despite supporting recent legislative changes relating to industrial allocations under the ETS, some changes were opposed due to their impact on discouraging investment.

42. **Further amendments to the Act, aimed at removing barriers and uncertainty to investment, would represent a quick and easy win to encourage emission reductions without direct cost to taxpayers beyond legislative changes.**

43. Amendments that locked-in periodic allocative baseline reviews every ten years, and activity specific baselines every five years based on the Minister's satisfaction that allocations are equal to or greater than emissions cost, have baked in uncertainty and disincentivised step-change investments in emission reductions.

44. If a firm which receives allocations invests in emission reduction technology, its allocative baseline is at risk of being reset to account for the emission reduction. Despite the main role of allocations acting as an instrument to minimise carbon leakage, they also incentivise emission reduction projects. NZUs no longer required for meeting future surrender obligations can be sold to fund the project.

45. For example, an industrial user wants to substitute natural gas with electrolysis for making hydrogen. The capex and opex is high. The investment has a long payback period, ten to fifteen years and many much longer. For sake of argument, the project significantly reduces its emissions. The allocation it continues to receive, be it reducing to zero over the coming decades due to the legislated phasedown rate, helps fund the investment's payback over the period.

46. The presence of a periodic review every ten or five years, possibly stripping away the payback, overshadows the final investment decision. The investment itself involves risk with high capex and opex. The periodic reviews worsen the risk and encourages firms to purchase NZUs today to offset future liability and defer step-change reductions until the reset risk is alleviated by the level of phase down. The firm is now incentivised to keep emission reductions above or at the level of phase down, slowing emission reductions.

47. This outcome is counter to the Government's climate obligations and most importantly an undesirable outcome for the climate. **We <u>recommend</u> amending the CCR Act to include the Minister's consideration for capital and operating expenditure when testing the over-allocation of units.**

48. The Minister must explain the reasons for departing from any decision. This option would reduce uncertainty and strengthen the incentive to invest in step-change emission reductions. Any concern about overallocation is counteracted by the legislated phase-down rate overtime.

Recognising Carbon Capture Storage (CCS) and Carbon Capture Utilisation Storage (CCUS)

49. **We <u>support</u> the adoption of a regulatory framework that enables the development of carbon capture and its storage or utilisation in New Zealand.** We have long advocated for its adoption, and we are pleased the Government is focused on its implementation. As part of the framework, the inclusion of Carbon Capture Storage (CCS) in the Emissions Trading Scheme will provide parity with other forms of sequestration, better recognising a technology that is both technically and economically viable today and could be operating by the late 2020s, if the right investment occurs and an enabling regulatory framework is implemented swiftly.

50. Reducing emissions at its source is vital but emissions capture is an additional technology to contribute towards reducing emissions. The Intergovernmental Panel on Climate Change (IPCC) believes CCS and CCUS is unavoidable if the globally economy is to reduce hard-to-abate residual emissions.[3] The International Energy Agency were more succinct in their assessment in 2020, stating that "Reaching net-zero will be virtually impossible without CCUS."[4]

51. Emissions capture technology, including direct air capture and storage is evolving and improving rapidly, and could become more economic over the next decade. When the technology becomes more economic, the relevant regulatory frameworks must be in place.

[3] Headline Statements from the Summary for Policymakers, Sixth Assessment Report, Intergovernmental Panel on Climate Change, (IPCC), April 2022

[4] Special Report on Carbon Capture Utilisation and Storage, International Energy Agency, 2020, p13

52. In the absence of a regime for the injection, storage, testing, monitoring, reporting and liability of CCS, investors in CCS will invest elsewhere. Establishing a regulatory framework will ensure New Zealand keeps pace if investors decide emissions capture is economic and worthwhile to pursue.

53. Despite the economics of CCS and CCUS remaining challenging to capture emissions from industrial processes and dispersed sources, the technology could provide a meaningful reduction in emissions in the gas sector in the near to medium term. A report written by WoodBeca in 2023 confirmed that capture and storage is technically viable and could be economically viable at the offshore Maui East field and at the onshore south Taranaki Kapuni field.[5]

54. As written in the plan, the projected emission reduction contribution of CCS is close to 1.4Mt over the second emissions budget period and 3.2Mt over the third budget period. This is based on assumptions that CCS is technically and commercially viable from 2027 for gas production and 2030 for the petrochemical industry, with the capture of 100% of emissions at Kapuni and Maui East.

55. **These outcomes will be contingent on private investment decisions based on commercial conditions that remain uncertain**, including the wider commercial opportunities for each business and the cost of carbon and alternative technologies to reduce emissions. **There are concerns that the assumed timeline is tight and could be optimistic**. If the implementation of a regime is not timely, there is a high probability that CCS investments may not occur in the plan's assumed timeframe.

56. **We therefore question the need for bespoke legislation to set out a permit regime for CCS operations**. Creating a bespoke piece of legislation could take longer compared to amending existing legislation, such as the Crown Minerals Act 1991, the Climate Change Response Act 2002, the Economic Exclusion Zone Act 2012 and the Resource Management Act 1991, to incorporate the use and regulation of CCS. The time taken to implement a regime will likely impact the inevitable investment in CCS.

57. This is particularly accurate for the oil and gas sector. For this sector, the economics of CCS, among many other factors, depends on volumes. As the volume of extracted gas continues to decline, and if the enabling changes are not made in time, the economics for investing in CCS could be low. **This highlights the need for a regulatory framework for CCS activities to be implemented swiftly in a timely manner**.

58. In many respects, CCS is a bridging technology, able to reduce hard-to-abate emissions until low-carbon technologies improve, become cheaper, and are deployed more readily, reducing the need for and investment in CCS. This highlights that legal arrangements which enable CCS need to be in place swiftly to ensure New Zealand receives the most benefit from the technology.

59. **We believe the RMA provides a reasonable and workable regulatory framework for CCS.** The RMA and EEZ already largely deal with public interest and environmental or property rights issues associated with CCS, and it can be said remains neutral towards CCS. Obtaining consents would require developers to meet certain conditions, as it relates to environmental impacts associated with CCS.

60. Even with a dedicated CCS specific Act, the activity of injecting carbon into the subsurface is a discharge of a contaminant to land or water that requires a resource consent and a discharge permit.

[5] Review of CCUS/CCS Potential in New Zealand, WoodBeca, 2023

However, the post-reinjection and storage phase of CCS, encompassing liability after a site closes and the ongoing monitoring of CCS projects provide additional complications which will likely have to be accounted for beyond changes to the RMA.

61. If the RMA is the preferred legislative framework for enabling CCS, **we <u>recommend</u> a dedicated National Policy Statement for Carbon Capture and Storage (CCS).** This could provide better guidance to local councils and decision makers. CCS projects navigating the consenting process could occur faster if the benefits of CCS are expressed and guidance about how benefits are to be understood in relation to adverse effects are clear.

<u>Chapter 5 – Energy</u>

Enabling all fuel types, not just electricity

62. As mentioned, **we support the Government's acknowledgement that the ETS is, and should remain, our main tool to reduce emissions attributed in the energy sector**. While well-intentioned, intervention in the form of subsidies, is often a costly approach to reducing net-emissions, departing from the 'emitter-pay' principle while not directly impacting net emissions unless the cap of unbacked units reduces in line with corresponding reductions.

63. The Government does have a role alongside the ETS to address market failures – if the problem is sufficient and solutions deemed to be a net-benefit. These market failures could encompass adverse externalities resulting from ETS, addressing public goods issues or information failures. The Government also have a role in adopting measures and regulatory changes which can enable the ETS signal to successfully achieve New Zealand's net-zero target. This includes addressing co-ordination issues, reducing supply-side barriers, while establishing frameworks and mechanism which support and attract adequate private investment.

64. As part of the Government's strategic focus to reduce emissions in the energy sector, we support actions in Electrify NZ to enable new supply by doubling renewable generation. Looking ahead to 2030 and further out to 2050, New Zealand will require a considerable upsurge in new capacity and the corresponding level of investment to meet escalating demand. Several models across the energy sector depict this outlook.

65. MBIE's Electricity Demand and Generation Scenarios (EDGS) show that across all scenarios, about half of all energy needs will be met by electricity by 2050.[6] This is similar to the New Zealand Energy System Model, TIMES-NZ[7], developed by BEC and 60 other industry, research, and government partners. In Kea, where climate change is prioritised as the most pressing issue, electricity supplies up to 59% of total energy supply and 54% in Tūī, where climate change is one of many pressing issues.[8]

66. Despite the clear outlook of electricity supply representing a largely portion of total energy supply, **the affordability and availability of energy across multiple fuel types, not just electricity,**

[6] Electricity Demand and Generation Scenarios: Results summary

[7] TIMES-NZ and the data underlying the model is currently going through a significant update and should be available next year.

[8] New Zealand Energy Scenarios TIMES-NZ 2.0

will be vital for achieving New Zealand's climate targets. This will include easing barriers beyond the electricity sector, in geothermal, biomass, natural gas, biofuels, biogas and hydrogen. Electrification may be the most viable option for many but for others it could be biomass, geoheat, natural gas or hydrogen.

67. Keeping these fuel options open and reducing supply-side friction to its delivery is important. Further below, we discuss several actions that the Government should prioritise to ensure energy is not scarce as New Zealand's emissions profile reduces over the course of the plan's budget period. Fuel scarcity, as currently illustrated in the gas and electricity market, is running the real risk of deindustrialisation on a large scale, and with it, job losses, supply-chain disruptions, weakened investment and wider macro-economic and fiscal implications. Continued scarcity will also impede the Government's goals to double exports, improve economic growth and reduce inflationary pressures.

68. Businesses who face high wholesale prices, are planning, or preparing to, decarbonise their processes. Unaffordable electricity will slow the uptake of these new technologies and processes, reducing the speed of which electrification can occur, while limiting its corresponding emission reductions across the economy.

69. Recent announcements of a market-led solution to short-term gas scarcity in the electricity sector, involving contractual arrangements compensating demand response of already contracted gas, represents a positive development to relief some pressure on the electricity market. However, New Zealand's energy balance is currently imbalanced, evidenced by a clear shortfall in energy supply and high prices. This deeply concerning for New Zealand's economy. Addressing this shortfall, to ensure affordable energy to meet our targets, requires additional investment across all fuels, including a continued and strategic role of natural gas.

The role of natural gas

70. Gas demand is declining, and fields are entering their decline phase. But natural gas will still play a vital role during the transition to a less carbon intensive economy. New Zealand's energy system model, TIMES-NZ, shows the need for investment out to 2050. The model shows around 50PJ of natural gas is consumed in 2050 in both scenarios. Even in the more climate focused Kea, gas remains as a back-up fuel to support increasing levels of intermittent sources.

71. **Figure 1: Kea – Fuel Consumption for all subsectors, all end use, all technology (PJ)**

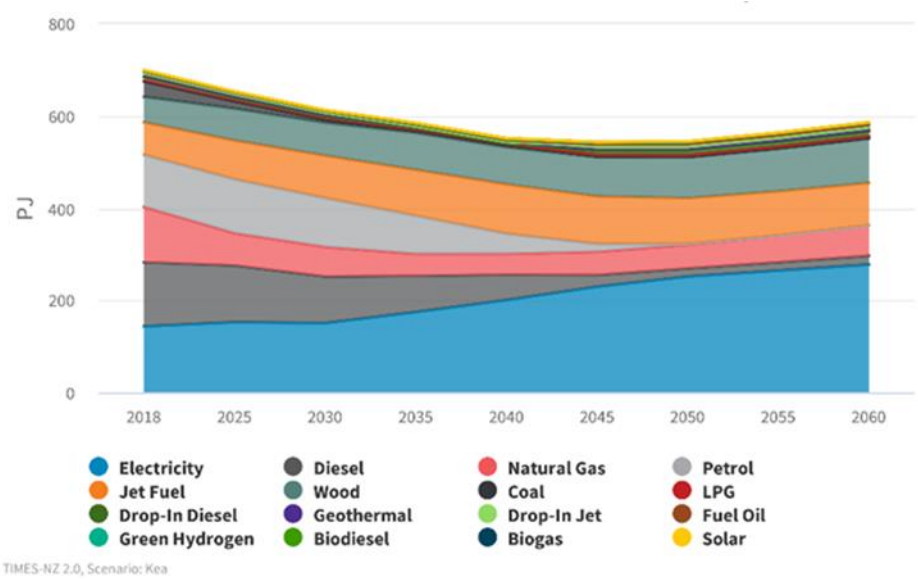
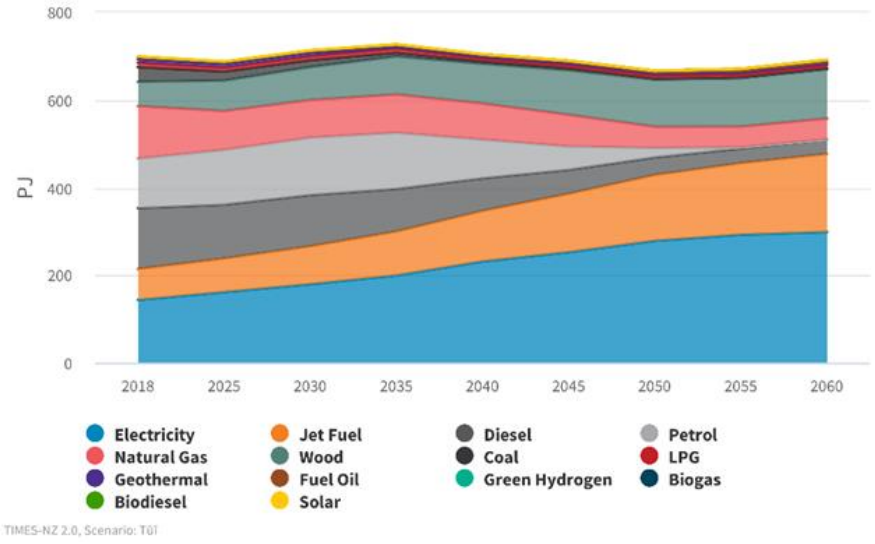


Figure 2: Tui – Fuel Consumption for all subsectors, all end use, all technology (PJ)



72. Deliverability must continue to avoid a sudden and accelerated decline in gas supply, which without available and economic alternatives, would unleash a disorderly transition. This would have broad and deep economic and social costs across society. There is a heightened risk of a disorderly transition. Gas supply constraints, experienced over the last few years, are rapidly becoming severe. Available supply is less than anticipated and businesses have found it difficult to source sufficient gas to meet demand. Scarcity is disrupting production, applying serious pressures to the commercial viability of operating in New Zealand and the ability to meet our climate targets if energy prices remain high.

73. The Government's legislative changes, including the reversal of the offshore oil and gas exploration ban, changes to decommissioning liability requirements and the adoption of a framework for CCUS, could help

promote some additional investment. However, the underlying deliverability problem of not enough gas supply remains pertinent.

74. Investments are usually 'lumpy,' requiring very large upfront costs. These investments incur significant risks. They operate in the backdrop of inherent engineering and economic uncertainty. Millions of dollars are often spent before any gas had left the ground. This requires sufficient rewards to justify this risky venture. If the rewards are far less, or the risks are too high, capital with will be divested elsewhere to find sufficient return at the corresponding risk. **Both international and domestic investors have come to denote New Zealand as a country with a high sovereign risk profile. This is problematic for New Zealand's efforts to ensure natural gas remains a bridging fuel throughout the transition.**

75. Reaffirming the role of gas, the role of alternatives like biogas and hydrogen, including what the Government will do, and not do, and when this will happen, will be useful in clarifying the emission reductions needed, while improving certainty in a sector where the direction of travel is blurred by uncertainties. In particular, the role of Government policy over time and across Governments.

76. **Options to reduce sovereign risk must aim to achieve multi-party agreement on key fundamentals across both the sector and the political spectrum**. **We <u>support</u> calls for the Government to work with opposition parties to reduce long term uncertainty in the sector.** The transition itself, and the role gas will inevitably play, transcends the three-year parliamentary term. Investments have long time horizons. And constant course corrections damages confidence. Emulating the Zero Carbon Act, multi-party agreement on the important role of gas, the opportunities of biogas and hydrogen to reduce the sector's emissions further is incredibly important.

Multi-party agreement on an overarching framework for the energy sector

77. More certainty in policy direction over the long term is not only important for the gas sector but for all forms of generation and fuels. Infrastructure has long lead in times. This requires strong signals and certainty that these signals and policy settings will remain over time. Expectations on the direction of travel and demand is necessary for planning necessary investment. Significant changes to pathways may impact investment pathways, and as a result supply chain development and workforce planning requirements. This is particularly accurate for the delivery of transmission and distribution infrastructure. Both the System Operator and Electricity Distribution Businesses require clear signals to undertake investment.

78. **We <u>support</u> the development of a long-term whole-of-energy strategy to be developed in conjunction with business**. We agree private sector leadership and action will be vital to achieve our low-emissions future which is why we believe collaboration with industry will be critical for the strategy to be successful.

79. All New Zealand's energy sources and energy demand management options are in different stages of maturity and will play different roles in the future. Critically, if they were integrated, all parts of the energy value chain – both on the supply side and demand side – would benefit from seeing a sequenced plan of how the energy sector can deliver emission reductions.

80. The energy strategy should underpin the policies and markets necessary to achieve a resilient and low carbon energy future. An informed and holistic approach from government with respect to the energy

sector is needed. Policy makers, businesses and consumers need more timely analysis and delivery of insights. We will look to leverage off the unique capability that resides in our model.

81. As mentioned earlier in this submission, the TIMES-NZ 2.0 model is well-placed to assess the complex interactions in New Zealand's energy system and most value will be gained by using the model to move boldly and smartly together to engage effectively with the energy system transition's many and diverse stakeholders.

82. For the strategy to be successful, it must be durable. We expect political parties to disagree and diverge on the scope of the Government's intervention during the transition, with varying views on how much public funds are to be allocated and the level of public sector involvement. However, **we believe ad hoc and continual changes to market and regulatory fundamentals, and frameworks – through tit-for-tat reversals and reintroductions – undermine investment and New Zealand's ability to meet our targets.** We see several key areas where agreement would provide significant value to the energy sector and New Zealand's ability to meet our climate objectives:

    - Agreement on gas policy (ruling-out bans and other prohibitive restrictions)
    - Agreement on ETS policy (how settings are agreed, what remains and what is added to the ETS)
    - Agreement on consenting and market structures (how market structures will operate and how consents will be obtained)

Easing consent processes and allowing for a wider enabling regulatory environment

83. New Zealand's resource planning regime is not fit-for purpose. Obtaining consent for a new project often takes far longer than building a new development. A timely and cost-effective consent process will be needed. **The Government's RMA reforms are a significant step in the right direction to ease consenting barriers**. We note the need for consenting improvements to also extend to the EEZ, covering onshore and territorial waters zone. We refer to BusinessNZ's submission supporting the Government's reform agenda and the introduction of a Fast-track Approvals Bill.[9] The submission provides several suggestions to improve the Bill, ensuring there are clear and transparent decision-making principles in the Bill given the significant power provided to Ministers, as well as wider considerations that should be included.

84. **As part of the Government's reform agenda, we believe a broader enabling environment beyond expediting consenting is vital**. More demand, coupled with volatile weather and natural disaster risk, in the backdrop of aging assets that require replacing and upgrading, underscore the need for timely and efficient investment to New Zealand's distribution and transmission infrastructure. This infrastructure, accommodating new generation projects and new connections to enable electrification of transport and process heat, will need to be modern, responsive and resilient.

85. In the case of transmission and distribution, acquisition processes under the Public Works Act (PWA) and the process to obtain relevant approvals place cost and time challenges on delivering new lines and connections, and effectively maintain and upgrade existing assets. Grid infrastructure located in sensitive environments provide complications. The presence of new linear infrastructure in some sensitive

environments will be unavoidable. This results in obtaining multiple approvals under non-RMA legislation such as the PWA, the Wildlife Act 1953 and the Conservation Act 1987. Each process provides an additional layer of complexity, uncertainty and cost. Overall, the timeline to obtain necessary approvals and access rights can take up to seven years.

86. This provides a barrier to connecting new generation and load on time, impacting the price of electricity and the level of electrification. We believe that to meet the Government's target to double renewables, the consenting and approvals processes across multiple pieces of legislation must align. A one-stop shop process, aligning necessary approvals and reducing the likelihood of duplication, should be reflected in the Fast-track Approvals Bill currently before Parliament. For electricity distribution, having national direction that provides consistency and enables the upgrades and replacements of infrastructure required is important. Planning documents, both at the national or local level, need to be clear to streamline routine upgrades and maintenance works.

87. Beyond consenting and approval processes, Electricity Distribution Businesses (EDBs) and Transpower, require adequate capital, and therefore sufficient revenue allowances, to build the necessary infrastructure to increase supply. The Commission's recent decision to uplift allowances as part of DPP4 and RCP4 is supported and remained largely pragmatic. The decision to smooth increases across the regulatory period is also supported to address concerns about deliverability, future demand uncertainty and soften the immediate impact on consumers.

88. However, there are justifiable concerns that the resulting uplift in revenue allowances is not adequate to build and upgrade assets that are required to meet increasing demand. Additional revenue that would fund new investments required for more demand remains greatly limited.

89. We acknowledge that non-network solutions will be important steps to shift and lower peak demand, reducing investment need in building more poles and wires, and system costs in the long term. The Commission's additional accommodation for non-network solutions in its recent decision is applauded.

90. However, there is limit to how much non-network solutions will deliver. Limited revenue allowances could be a material risk to the reliability and capability of the network and grid in the future, if necessary, investments are delayed and demand increases. Delaying investment could simply defer costs to the next regulatory period, and with it, risks the possibility of increasing the overall cost if it is more expensive to upgrade the network in the future due to foreseen or unforeseen reasons, making it more challenging for the country to meet its international commitments to achieve net-zero emissions.

91. This is especially accurate for transmission and distribution infrastructure, delaying investment can incur higher costs than investing prematurely. When constructing a line, a connection or interconnection, it's important to plan for future need, as it is often prohibitively expensive to construct an alternative line. It is also unlikely that a community would accept another line in proximity. This demonstrates the importance of planning and regulation that enables investment in projects not only focused on immediate need.

92. Despite the task of electrification being clear, the challenge lies in synchronising these investments through regulatory frameworks over time. Investment must be ahead of the curve, ensuring capacity is available to meet consumers' decisions. While we support enabling more proactive investment, we acknowledge the delicate balance between affordability and covering the necessary expenses in vital transmission and distribution infrastructure. The regulatory model means the costs and the risks of overbuild are borne by the consumer. Careful matching of investment timing with increasing demand is required to ensure the affordability part of the trilemma is achieved.

Unlocking capital to increase renewable supply and low carbon technologies

93. We are pleased with plan's greater emphasis on realising private investment. Private capital will come to the table and meet the Government's targets to double renewable generation. This will in part be helped by amendments to the Overseas Investment Act (OIA) and streamlined processes to enable the freeflow of overseas investment.

94. Financial institutions, both domestic and overseas, note the attractiveness of investing in more renewable supply in New Zealand. However, the process for investors to receive approval in New Zealand is onerous, restrictive and costly. **We <u>applaud</u> the Government's steps to make it easier for overseas investment by welcoming and promoting investment in New Zealand**. Re-writing the Act would see the most benefit, as previously submitted on BusinessNZ. We look forward to seeing steps two and three as part of the Government's process outlined to better enable overseas investment.

95. We note however there are investment barriers beyond changes to the OIA. This includes challenges for independent generators to source sufficient offtake agreements necessary for investment in new generation. Without sufficient offtake arrangements, final investment decisions are difficult to complete.

96. Power Purchase Agreements (PPAs) play a role in providing stable and predictable revenue to developers while mitigating risks for investors through long-term offtake agreements. New Zealand's PPA market is not particularly mature compared to other countries. On the flipside, this is likely because of New Zealand's small size and relatively few large industrial participations.

97. New Zealand's economy is marked by a scarcity of industrial users willing to enter creditworthy and extended PPAs of this size spanning a duration of fifteen years or longer. There are concerns parties entering into these agreements may find it difficult to source adequate firming arrangements. New Zealand is a small electrically isolated country with no connection top neighbouring grids to providing this firming.

98. These long-term PPAs serve as a linchpin for rendering large scale renewable development viable. The lack of creditworthy offtake agreements impedes the fulfilment of lending requirements, thereby increasing project costs and slowing the rate of development for these projects. This creates challenges for securing finance without the assured offtake and certain return.

99. **We <u>recommend</u> exploring possible measures to enhance the role of PPAs in the future.** This could involve investigating the merits of PPAs for public sector entities by consolidating offtakes from institutions like hospitals and school or investigating the merits of introducing measures that aggregates and matches supply and demand for new projects, which could stimulate investment.

100. The Government has significant influence through its all-of-government (AOG) tendering of supply contracts. It could accelerate more renewable generation by stipulating in their commercial arrangements that suppliers must develop new renewable generation for the purpose of meeting the public sector's supply contract. They could determine their willingness to pay for the premium associated with the specifications. However, the demand from public sector offtake agreements is relatively low and may not provide enough demand for larger generation projects to increase renewable supply. The potential for PPA's might also be limited for sizable projects.

Actions to enable New Zealand's geothermal potential

101. The plan mentions geothermal's important role and the possibility for actions to expedite geothermal opportunities. There is significant potential to harness geoheat, not only for conventional electricity generation, but also for direct and indirect use for industry, possibly in dairy and wood processing sectors. Direct use today illustrates its possible economic use case of geoheat to power industrial processes. Indirect applications to source low temperature heat through heat pumps can occur practically in most locations with stable temperatures and geology which can be assessed.

102. Supercritical geoheat resource, extracted from a 3.5 to 6km depth, could provide up to 3.5GW of energy per year from unprotected sites. Resource could be available by 2037 if the necessary investment occurs and the regulatory environment aligns. Castalia's modelling showed that 2,000 MW could be economic to build by 2050.[10]

103. This could help retain and attractive new energy intensive industries to New Zealand. One such use could be from datacentres which require large amounts of power for cooling. There are a few actions that could help unlock and enable more geothermal opportunities alongside the ETS. We judge these options to be relatively cost-effective and worthwhile to pursue.

104. Enabling more geothermal resource, as well as other forms of energy beyond electricity, is vital to reduce the demand for grid infrastructure and wider system costs associated with electrification. **We believe that there is an opportunity for targeted research and development in addressing technical and engineering challenges that occur when drilling**. This includes managing wells, scale formation, corrosion, and stress related issues. Partnering with international researchers to share knowledge and expertise would be valuable. Identifying collective knowledge gaps and areas where additional research would be most cost-effective and required would help develop opportunities further.

105. **We believe the Government has a role in helping to facilitate relationships between multiple parties to address coordination challenges between supply and demand as businesses transition to alternative sources.** Work undertaken by the Energy Efficiency Conservation Agency (EECA), as part of the Regional Energy Transition Accelerator (RETA), is an illustrative example of the value of this coordination role.

106. This work has assessed each region of New Zealand and its significant process heat sites, assessing what fuel and timing is needed for their transition. It also assessed whether it is achievable and affordable to switch by investigating electricity infrastructure availability, costs and timing, as well as biomass availability and cost. As a result, among its reports it highlights case studies for sites which could switch to alternative sources like biomass.

107. There is an opportunity to expand on this work further, to assess additional opportunities, the location of resource, determining the necessary technology and bringing together businesses to develop and deliver successful business cases. Small and medium-sized enterprises (SMEs) may face resource and capability constraints when addressing coordination challenges and implementing their plans to transition away from fossil fuels. For example, in the horticultural sector, many growers rely on coal or gas boilers. In the face

[10] Supercritical Geothermal in New Zealand, October, 2023

of day-to-day responsibilities, many do not have the time nor capability to develop plans and coordinate with other businesses to adopt sometimes complex decarbonisation plans.

Actions to enable biogas

108. Biogas (particularly biomethane) holds many promising and viable opportunities to reduce the gas sector's emissions, coupled with providing many co-benefits in waste utilisation. Biogas also has the potential to reduce the liability of decommissioning network infrastructure.

109. The complete cessation and decommissioning of gas pipelines would come at a substantial cost. Instead, by utilising existing gas infrastructure, with biogas, the costs linked to stranding and replacing infrastructure can be minimised, ensuring the efficient allocation of resources and averting unnecessary expenses. This approach safeguards the utility of the current gas infrastructure.

110. The process of decarbonising gas fuels offers the advantage of removing the necessity for extensive replacement or displacement of current gas infrastructure, as well as household plumbing and appliances. This kind of overhaul can incur substantial costs on a large scale. For instance, in the Esperance Energy Transition Plan, which entailed disconnecting fewer than 400 homes in a Western Australian township, the expenditure reached approximately A$12 million, translating to $30,000 per home.[11]

111. By reducing emissions in the sector, it can postpone necessary upgrades to the grid and distribution networks, simultaneously diminishing the need for new generation. Such an approach yields wide-ranging benefits in terms of cost efficiency and affordability across the entire system.

112. There exists genuine uncertainty surrounding the transition's impact on existing gas pipeline infrastructure, especially regarding long-term assets and the risk of stranded investments. Biogas, mirroring natural gas in its chemical composition, can be seamlessly blended with natural gas within pipelines. Embracing biogas in the residential and commercial gas sector could expedite the decarbonisation process substantially.

113. There are situations where the network might contract, leading to the decommissioning or lack of upgrades in infrastructure. The allocation of responsibilities and costs in these scenarios remains unclear, including how any consumers dependent on those pipelines will be supported through the transition.

114. **We <u>recommend</u> including gas pipelines in scope of the planned review of Part 4 of the Commerce Act 1986.** Part 4 was primarily designed for a world where gas pipeline infrastructure was stable or expanding (and with limited competition from substitutes), a paradigm that worked effectively. However, it may no longer be suitable given the current circumstances. Gas volumes are declining, and total connections have levelled off. The pricing of emissions and improvements in electrification technologies means there are credible substitutes for many users. The existing regulations outlining revenue allowances lack the necessary flexibility to cover decommissioning costs.

115. **We <u>recommend</u> the implementation of renewable gas certificates.** The potential for biogas and hydrogen becomes significantly more robust in regions with an established framework for tradable renewable gas certificates, alleviating the necessity for buyers to use the molecules directly. Such a system would stimulate increased demand from organisations interested in reducing their emissions. However, it

[11] Horizon Power, Esperance Energy Transition Plan, (2023)

is important that there is clear understanding, in a practical sense, that claims are genuine and molecule matching is of high standard.

116. **We recommend the Government acknowledges the role biogas will play as part of the supply mix.** This would ideally be referenced in the long-term Energy Strategy. Improving the understanding about biogas within the Government and by consumers is required for increasing its uptake.

Actions to unlock hydrogen investment

117. The imperative for clean fuels, such as hydrogen, becomes apparent when considering the Climate Change Commission's recommendations in the 2023 draft advice to inform the strategic direction of the Government's second emissions reduction plan. It showed the need for significant emission reductions in emissions budget's 2 and 3, both in the transport and energy sectors.

118. The specific roles of hydrogen, within the context of New Zealand, remains uncertain. New Zealand, being a technology-taker, cannot ignore overseas developments in hydrogen technology. Hydrogen's role will evolve alongside changes in global markets and technological advancements.

119. Larger economies have made substantial investments, spending billions in research and development, tax incentives, and subsidies on a significant scale. These investments are likely to have significant implications for the progress of clean fuel technology, including hydrogen. The extent to which global innovation will unfold and the competition for limited technology resources during the early to medium stages remain uncertain.

120. **We <u>supported</u> the adoption of a hydrogen roadmap initiated under the last Government.** A well-defined roadmap delineating both the government's and the private sector's roles instills confidence and fosters investment. We note that prioritising "investability" should underpin the roadmap's objectives.

121. **We <u>support</u> the implementation of recommendations in PwC's New Zealand's hydrogen regulatory pathway report submitted to MBIE in July 2022**. This report outlined the clear regulatory hurdles acting as impediments to hydrogen technology deployment in New Zealand. The prescribed actions taken in the report are imperative for developing an effective roadmap.

Chapter 6 – Transport

122. This chapter implies that there is constrained ability for policy to bring about reductions in transport emissions, and we agree with that viewpoint. We agree with the statement in the Discussion Document that:

> *"Emissions from the transport system are covered by the ETS, which limits the degree to which enabling transport policies directly reduce net emissions in the long run. Stable incentives and clear price signals through the scheme are important to encourage private investment in the uptake of cleaner vehicles and fuels."*

123. Given the role of the ETS, additional impetus for reductions in transport sector emissions will come mainly as the result of advances in vehicle technology. In the case of road vehicles, this is likely to mean a combination of lower-cost, extended-range electric cars and trucks that can be charged rapidly, alongside more fuel-efficient cars and trucks powered by internal combustion engines.

124. However, there might also be a role for the use of regulations for the importation of fuel-efficient vehicles, as illustrated in the Clean Car Standard. **We are pleased to see the Government is amending the Clear Car Standard to ensure that it is achievable**. We submitted on the Bill in 2021,[12] demonstrating concerns about its targets. A reduction target of 50-60% between 2023 to 2027 was out of step and more ambitious compared to the European Union and Japan. Simply said, New Zealand would not have been able to import vehicles at this high standard.

125. **We consider reforming the Fringe Benefit Tax (FBT) as an effective way to encourage of low emission vehicles.** The FBT is currently higher for a low emissions vehicle due to the higher capital costs creating greater FBT liability. The FBT has not had a comprehensive review and change for decades. We believe a full and comprehensive review of New Zealand's FBT rules is long overdue. This review should consider whether the regime is still fit for purpose and will inform decision-making about whether policy changes may be required. Therefore, we would expect any discussion around changes to FBT to involve vehicles to be part of that wider review, and not treated in isolation.

126. We acknowledge that Government is committed to delivering 10,000 public EV chargers by 2030, subject to cost benefit analysis, but we are concerned that this could create problems for the electricity network. As we noted when we delivered our submission on the then Draft Government Policy Statement on Land Transport earlier this year, the uptake of electromobility is highly intertwined with the energy transition.

127. In fact, the uptake of electrification and the roll out of charging infrastructure poses significant challenges for Electricity Distribution Businesses as those businesses operate within specific regulatory frameworks and face investment limitations. Currently, EDBs focus on overcoming barriers related to connecting to the electricity network. These barriers include pricing (connection costs and ongoing line charges) and process inefficiencies arising from varying network practices.

128. Simultaneously, Charging Point Operators (CPOs) require efficient connections to accelerate charger deployment. Addressing these coordination challenges will be critical to deploying additional public chargers. Beyond coordination challenges, CPOs face high connection costs due to required network upgrades. Investigating the role of financing tools could assist and possibly enable CPOs and EDBs to spread the upfront connection cost or fund through alternative sources.

129. Concerning aviation and shipping, we believe that emissions reductions will also depend mainly on technological advances. We note that Air New Zealand recently abandoned its 2030 emissions reduction target, partly because new more fuel-efficient aircraft would not be available on time, and partly because a lack of alternative low-carbon jet fuels.

130. Clean fuels could have a role to play in helping to decarbonise transport sectors where alternative options are not available in the short and medium term, e.g., rail, marine and aviation, in addition to heavy trucks. Enabling maximum purchasing options for low-carbon fuels will be important for increasing use. Where fuels are imported, the production characteristics of these fuels will need to be understood. Where low carbon fuels are produced and used in New Zealand, a clear method to track ownership of low carbon fuels throughout the fuel supply chain will be critical to achieving maximum value and enabling economic production.

[12] BEC and BusinessNZ submission to the Transport and Infrastructure Select Committee on the Land Transport (Clean Vehicle) Amendment Bill, November, (2021)

131. Despite Air New Zealand changing its reduction target, we support the Government working with the air transport industry to investigate the feasibility of sustainable aviation fuels in New Zealand, and how private sector investment in sustainable aviation fuel (SAF) could be unlocked. Such investigation could consider sustainable fuels for shipping to increase the production, scale, and distribution of such alternative fuels, and how New Zealand could source or produce these fuels.

132. **We also believe that New Zealand should move in-step with the rest of the world when it comes to whether and when it would be appropriate to develop and implement policies on aviation and shipping emissions**. By virtue of the country's remoteness and place at the end of supply lines, New Zealand is vulnerable to any actions that would add to sea and air transport costs.

133. **We also support reviewing the application of the Annex VI carbon intensity requirements to domestic coastal shipping.** Annex VI distorts the coastal freight market by applying an intensive regulatory burden on domestic operators who comprise around 22% of the market and exempts international operators who comprise 78% of the market. By adding compliance costs onto maritime operators, and not to higher emitting freight modes, Annex VI disincentivises emissions reduction.

Chapter 7 – Agriculture

134. We believe that farmers will step up and will adapt to pricing of agricultural emissions, if they can access affordable and effective tools to reduce their emissions without having to reduce their production levels and jeopardise the financial viability of their farms. Our concern is that the tools in question might not be widely available by 2030, in which case there would be a grave risk of production being transferred overseas with no overall global emissions reductions.

135. Accordingly, we urge the government to take a pragmatic approach towards the 2030 deadline and, at the same time, vigorously support public-private partnerships, like AgriZeroNZ, in their work to develop technology-driven methods to reduce emissions.

> The Discussion Document states the following (page 74) about agriculture:
>
> *"The Government has committed to keeping agriculture out of the NZ ETS and introducing fair and sustainable pricing of on-farm emissions no later than 2030. This will reduce emissions without causing emissions leakage by sending production overseas. The Government has also committed to recognising on-farm carbon sequestration. To get the desired impact, tools to reduce emissions must come ahead of pricing – and our producers must be able to adopt these while remaining profitable."*

136. This statement is in part reassuring, in that it supposes that it will be possible to reduce emissions without sacrificing production in New Zealand without exporting emissions. However, it is also in part concerning, in that it implies pricing of agricultural emissions will be introduced by 2030, regardless of the availability of effective and affordable emissions-reducing technologies for on-farm use.

137. In our recent submission to Parliament's Primary Production Committee on the Bill to remove agriculture activities from the New Zealand Emissions Trading Scheme[13], we acknowledged that agriculture should contribute to New Zealand's efforts to combat climate change by reducing greenhouse gas emissions. We

[13] BusinessNZ submission to the Primary Production Committee on the Climate Change Response (Emissions Trading Scheme Agricultural Obligations) Amendment Bill

also recognised that New Zealand food product exports to some markets could be at risk, if the country was perceived not to be taking sufficient climate action.

138. Based on this, we recognised that some form of on-farm emissions pricing might be justified in due course, but we also expressed our opposition to the introduction of pricing in advance of the widespread availability of effective and affordable mitigation technologies that do not significantly reduce agricultural production and farm viability.

139. The technologies in question were those referred to in the ERP2 Discussion Document, including methane inhibitors and vaccines, and the use of genetic modification in pursuit of climate goals. In addition, we believe that it will be important to develop reliable and administratively simple ways for on-farm emissions to be measured and reported.

140. Our concern is that the possible premature and injudicious introduction of an agricultural emissions pricing system could have a crushing effect on the sector and rural communities, without the benefit of a reduction in agricultural emissions at global level.

141. When the then government published a consultation document on pricing agricultural emissions, late in 2022, we undertook statistical modelling, based on information in the document, to illustrate how pricing could affect the country's rural economies[14].

142. This modelling indicated that districts that were specialised in livestock farming and were also home to meat works or dairy processing plants could experience dramatic reductions in their employment because of reductions in on-farm production, and in the industries that supply farming or process farm produce. We found that there were five District Council areas where more than 40% of employment in farming and in key industries upstream and downstream of farming was at risk. There were also a further six District Council areas where 30-40% of employment in farming and in key industries upstream and downstream of farming was at risk.

143. We concluded that whole communities could collapse if agricultural emissions pricing was introduced in the way envisaged at the time. A lot of farmland, especially land used for sheep and beef farming, would be converted to more profitable plantation forestry. But this alternative use would not provide the same direct employment opportunities, nor would it generate the same levels of employment in downstream processing activities as farming does. Consequently, we urged that any system for pricing agricultural emissions should be fully cognisant of the wider costs and benefits of its introduction.

144. Imposing the pricing of agricultural emissions in advance of the wide availability of effective and affordable emissions-reducing technologies would also carry the same risk as forcing agriculture into the ETS, in that it could result in the transfer of production overseas, possibly to countries where emissions per unit of production are greater than they are in New Zealand.

Chapter 10 – Waste

145. We note that the plan proposes the further investigation of efforts to incentivise and encourage diversion of organic materials from landfill, undertaking analysis and research into which policies and or regulatory changes would be most effective and efficient. **We support the management of waste to be**

[14] BusinessNZ and ExportNZ submission to the Ministry for the Environment on the Pricing Agricultural Emissions Discussion Document, November, 2022

considered in the context of a circular economy rather than just the traditional linear 'take-make-dispose' model. Solutions that divert waste away from landfills, while reducing waste in of itself, will play a role in meeting New Zealand's emissions targets.

146. **However, before any change to regulation and policy occurs, we highlight the importance of assessing the cost of any regulatory change, while asking some fundamental questions**. These include:

- Is there problems in New Zealand with current waste management systems (i.e. are there significant issues of "market failure" which need to be addressed)? Do these market failures encompass problems with public goods, information failures and externalities?
- If there is a problem, is the problem significant enough for intervention?
- What are the costs and benefits (including unintended costs) of any policy to encourage diversion of organic material?
- What are the potential options for improving outcomes which don't impose significant costs (e.g. improving information, including greater transparency in price signals to market participants)?

147. Assessing whether information asymmetries and coordination challenges exist in the disposal of organic material, and the extent of the problem, would better inform the best options to enhance a circular economy. Helping to bridge the gaps through coordination between the supply and end-user of organic material could be valuable. Yet the economies of scale are often important when dealing with certain waste streams, particularly relevant for smaller businesses facing the disproportionate cost of having waste and recycling companies picking up smaller amounts of recyclable or specialised waste.

148. As a general principle, individuals and companies should bear the full costs of their behaviour, with costs being internalised. Waste minimisation is no different. If decisions are to be made about waste minimisation, those involved should ideally bear the costs. Ensuring externalities are internalised should be one of the guiding principles behind any decision to intervene. Currently, at the household level, waste disposal pricing is fraught with difficulty and significant cross subsidisation, with households generally paying for it out of general rates, with little incentive to ensure they face the true (user-pays) cost of disposal.

149. In some instances, waste could be re-purposed as a fuel. However, this will require significant work to ensure that this is done in an environmentally responsible way. Guidance and certification for this could be carried out by central Government.

150. A modern engineered landfill is classified as renewable energy in the Greenhouse Gas Protocol guidance for carbon footprinting and can capture a large portion of the methane from organic material. This demonstrates that these landfills are already managing and reducing emissions, and many are also a source of renewable energy.

151. With the above in mind, organic material could be processed in anaerobic digestors to generate biogas for injection into the North Island gas pipeline. This would be more valuable to many users as biogas rather than electricity and the material coming out of the digester can also be used for soil amendment rather than being locked up in a landfill.

152. **Yet we note that funding mechanisms to encourage the diversion of organic waste away from landfill could be costly and risk reducing waste beyond an optimal level.** Beyond a certain point the marginal cost of waste minimisation becomes progressively higher, while the potential returns reduce.

153. We understand there is a lack of knowledge by waste emitters about options for waste disposal and downstream commercial opportunities arising from other options than sending waste to landfill. **We <u>recommend</u> working with Councils and industry to assess these options.** There could be opportunities for Councils to work together, and collaborate with the private sector, to potentially deliver privately funded projects like aerobic digestion facilities at the scale required and find commercial pathways for downstream products like biogas, CO2 and digestate. The central Government could help facilitate these opportunities by defining and developing the framework by which private and public partnerships could operate.

154. Overall, we highlight that addressing the wider problem of sound pricing information which would encourage individuals, households and businesses to make rational choices between recycling and disposal would be valuable and should be prioritised. This would also have likely positive spillover effects in waste minimisation beyond efforts to improve the circular economy.

Appendix One - Background information on BusinessNZ and BEC

BusinessNZ is New Zealand's largest business advocacy body, representing:

- Regional business groups EMA, Business Central, Canterbury Employers' Chamber of Commerce, and Employers Otago Southland
- Major Companies Group of New Zealand's largest businesses
- Gold Group of medium sized businesses
- Affiliated Industries Group of national industry associations
- ExportNZ representing New Zealand exporting enterprises
- ManufacturingNZ representing New Zealand manufacturing enterprises
- Sustainable Business Council of enterprises leading sustainable business practice
- BusinessNZ Energy Council of enterprises leading sustainable energy production and use
- Buy NZ Made representing producers, retailers, and consumers of New Zealand-made goods

BusinessNZ can tap into the views of over 76,000 employers and businesses, ranging from the smallest to the largest and reflecting the make-up of the New Zealand economy.

In addition to advocacy and services for enterprise, BusinessNZ contributes to Government, tripartite working parties and international bodies including the International Labour Organisation (ILO), the International Organisation of Employers (IOE) and the Business and Industry Advisory Council (BIAC) to the Organisation for Economic Cooperation and Development (OECD).

The BusinessNZ Energy Council (BEC) is a group of New Zealand's energy sector organisations taking a leading role in creating a sustainable energy future. BEC is a division of BusinessNZ, New Zealand's largest business advocacy group. BEC is a member of the World Energy Council (WEC). BEC members are a cross-section of leading energy sector businesses, government and research organisations. Together with its members BEC is shaping the energy agenda for New Zealand.

Our vision is to support New Zealand's economic wellbeing through the active promotion of the sustainable development and use of energy, domestically and globally. With that goal in mind, BEC is shaping the debate through leadership, influence and advocacy