



COVERSHEET

Minister	Hon Stuart Nash	Portfolio	Economic and Regional Development
Title of briefing	Emissions Reduction Plan: Circular Economy and Bioeconomy	Date to be published	7 September 2022

List of documents that have been proactively released

Date	Title	Author
March 2022	Emissions Reduction Plan: Circular Economy and Bioeconomy	Office of the Minister of Energy and Resources; Office of the Minister for Economic and Regional Development
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Information redacted

YES / NO [select one]

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Reasons for withholding information includes:

- Maintaining constitutional conventions
- Free and frank opinions

Budget Sensitive

Office of the Minister of Energy and Resources

Office of the Minister for Economic and Regional Development

Cabinet Economic Development Committee

Emissions Reduction Plan: Circular Economy and Bioeconomy

Proposal

1. The purpose of the paper is to seek high-level agreement on actions to be included in the Circular Economy and Bioeconomy chapter of the Emissions Reduction Plan.
2. This paper also seeks decisions on how to respond to a number of recommendations made by the Climate Change Commission (the Commission) in its final advice to Government.


Relation to government priorities

3. The Government declared a climate change emergency on 2 December 2020. Cabinet agreed that climate change “demands a sufficiently ambitious, urgent, and coordinated response across government to meet the scale and complexity of the challenge” [CBC-20-MIN-0097 refers].
4. Enabling a just transition to a low-emissions, climate-resilient future is a Government priority. Cabinet declared its intention to “put the climate at the centre of government decision-making”. [CBC-20-MIN-0097 refers].
5. The proposals in this paper relate to the Cooperation Agreement between the Labour and Green Parties. Achieving the purpose and goals of the 2019 zero carbon amendments to the Climate Change Response Act 2002 (CCRA) is an agreed area of cooperation.
6. Meeting emissions budgets and targets will require changes to the economy. A focus on the circular economy and bioeconomy will not only enable and accelerate a low emissions economy, but will also advance the Government’s goal of creating high-wage jobs and economic opportunities that are environmentally sustainable [DEV-21-MIN-0222 refers].

Executive Summary

7. This paper seeks agreement on actions to be included in the Circular Economy and Bioeconomy chapter of the Emissions Reduction Plan (ERP).
8. The Circular Economy and Bioeconomy chapter of the ERP addresses recommendations 14 and 15 of the Climate Change Commission’s recommendations. The key decisions needed now are the proposed actions to address recommendations 14 and 15, and the responsible Ministers for these actions, as outlined here:

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Climate Change Commission recommendations	Proposed actions from 2022 (subject to funding)	Proposed actions in climate budget period one (2022-2025) (when funded)
<p>Recommendation 14: “Increase the circularity of the economy” by developing and delivering a circular economy strategy to be created in partnership with iwi/Māori</p> <p>Recommendation 15: “Develop a thriving, climate-resilient bioeconomy that delivers emissions reductions” by developing and delivering a bioeconomy strategy created in partnership with iwi/Māori</p>	<p>Invest in data collection and research to measure baselines and indicators (suggested responsible Minister: Minister for Economic and Regional Development)</p> <p>Integrate and build circular practices across government, communities and businesses (suggested responsible Minister: Minister for Economic and Regional Development)</p> <p>Support for businesses moving to circular practices, <small>Constitutional conventions</small></p>  <p>Accelerate the sustainable and secure supply and uptake of bioenergy in New Zealand, which avoids adverse effects on indigenous vegetation and habitats (suggested responsible Ministers: Minister for Energy and Resources [demand] and Minister of Forestry [supply])</p>	<p>Deliver a Circular Economy and Bioeconomy Strategy developed with engagement with iwi/Māori and key stakeholders that includes:</p> <ul style="list-style-type: none"> - moving to a more circular public sector - innovation, skills and investment to accelerate progress - aligning regulatory systems and the business environment - enabling Māori to benefit from a circular economy and thriving bioeconomy - a bioeconomy framework to guide our use of bioresources. <p>Support research and development (R&D) and accelerate investment in the bioeconomy to successfully commercialise bioeconomy technology and products, including marine and terrestrial-derived products. This could include manufacturing clusters and infrastructure (e.g., bio-pilot plants).</p>

Background

9. This paper is one of a set of papers containing proposals for inclusion in the Emissions Reduction Plan that the Government is required to publish under the CCRA in conjunction with Budget 2022 and no later than 31 May 2022.
10. The Commission’s final advice recommends the following actions that are relevant to the Circular Economy and Bioeconomy chapter (further information on relevant recommendations and the Government’s response can be found in Annex 1):
 - 10.1 Recommendation 14: ‘Increase the circularity of the economy’ by developing and delivering a circular economy strategy to be created in partnership with iwi/Māori.
 - 10.2 Recommendation 15: ‘Develop a thriving, climate-resilient bioeconomy that delivers emissions reductions’ by developing and delivering a bioeconomy strategy created in partnership with iwi/Māori.

11. The draft Emissions Reduction Plan includes a Circular Economy and Bioeconomy chapter, which will set out the Government’s vision and actions in these areas.

The Circular Economy and Bioeconomy chapter

12. A circular economy aims to decouple the economy from the consumption of finite resources, including energy resources. It does this by designing out waste and pollution, keeping resources in circulation for as long as possible, then recovering and regenerating products and materials at the end of each service life.
13. The bioeconomy is the part of the economy that uses renewable biological resources to produce food, products, and energy.
14. The circular economy and bioeconomy are complementary concepts, and a more circular and efficient use of our renewable resources will help New Zealand make the shift to a low-emissions, productive, sustainable, and inclusive economy.
15. There are also circular and bioeconomy applications that are distinct from each other, for example circular approaches to recycling or repair of home appliances will tend to not involve the bioeconomy.
16. Transitioning to a circular economy means moving from an extractive economic model to one that is regenerative, just, and inclusive. It will involve rethinking and redesigning how we produce and consume goods and services to design out waste and pollution and achieve equitable outcomes. The Climate Change Commission report found that moving to a more circular economy and delivering a strategy for a bioeconomy can lower emissions across supply chains¹. Global studies estimate that moving to a more circular economy has the potential to halve emissions.²
17. Unlocking the potential of the circular economy requires a strategic approach that integrates discrete and disjointed initiatives across sectors and regions. A starting point for such an approach is improving our understanding of how materials circulate through the economy.
18. Creating a thriving bioeconomy will involve actions such as moving to more regenerative production systems, and protecting and restoring biodiversity, particularly indigenous biodiversity. It will also involve growing current and new areas of innovation in nature-based solutions³ – using diverse resources such as wood, plants, crops, seaweed, food and other organic waste from households and industries – that can replace products made from fossil-fuel based resources.
19. A thriving bioeconomy is not possible without a well-managed resource base. Adopting a strategic and integrated approach to bioresource management will ensure bioresources are used efficiently, there are sufficient resources to meet emerging demand in areas such as bioenergy, growth occurs in a way that avoids adverse effects on indigenous vegetation and habitats, and impacts on communities are identified and managed appropriately.

¹ Climate Change Commission report on a low emissions future for Aotearoa, 2021

² MacArthur Foundation – Completing the Picture and Circularity Gap Report, 2021

³ See Nature-based Solutions chapter of the Emissions Reduction Plan

20. The approach of Te Mana o Te Taiao, the Aotearoa New Zealand Biodiversity Strategy provides a guide to achieving this integrated approach through recognising the intrinsic value of nature, that people are a part of nature, and how nature supports life and human activity, including economic activity. We can also move forward in a considered way by placing development of the bioeconomy in the broader context of enhancing the wellbeing of New Zealanders.
21. Several government priorities can be advanced through the promotion of the Circular Economy and Bioeconomy. These include oceans, fisheries, and biodiversity management, and the growth of new, low emissions industries. Scion has suggested the bioeconomy has the potential to grow New Zealand's GDP by \$20 billion and contribute to emissions reductions of 10 million tonnes in CO₂-e by 2030⁴.

Our vision is for a circular economy by 2050

22. For the Circular Economy and Bioeconomy chapter of the Emissions Reduction Plan, we propose aligning with the Government's Waste Strategy and its proposed vision of 'A circular economy for Aotearoa New Zealand in 2050'. The vision for the Circular Economy and Bioeconomy chapter will be broader than waste and how we use resources, and will include approaches that rethink and redesign how our economy meets the needs of New Zealanders, through:
 - 22.1 A high-wage, low-emission economy underpinned by circular practices.
 - 22.2 Regenerative production systems fit for a better world (this vision statement is from the Primary Sector Council's Fit for a Better World).⁵
23. The outcomes we are seeking to achieve through the Circular Economy and Bioeconomy chapter of the Emissions Reduction Plan include:
 - 23.1 Designing out emissions, waste and other pollution and keeping products and materials in use.
 - 23.2 Greater use of renewable resources displacing non-renewable resources in the production of both goods and energy.
 - 23.3 Protection and restoration of habitat, ecosystems and ecosystem services and ecological function with particular attention to indigenous biodiversity.
 - 23.4 Long-term storage of carbon.
 - 23.5 People, businesses, and communities that are more prosperous and resilient.
 - 23.6 Higher value low-carbon products that strengthen brand New Zealand.

⁴ This includes \$2 billion in fuel and plastics substitutions (imports) and \$6 billion in exports, and several hundred jobs in the regions.

⁵ <https://fitforabetterworld.org.nz/our-vision/>

Proposals to include in the Emissions Reduction Plan

24. We propose six actions be included in the Emission Reduction Plan’s Circular Economy and Bioeconomy chapter:
- 24.1 Invest in data collection and research to measure baselines and indicators of progress towards circularity and the impact on emissions.
 - 24.2 Integrate and build circular practices across government, communities, and businesses.
 - 24.3 Support for businesses moving to circular operating models.
 - 24.4 Accelerate the sustainable and secure supply and demand of bioenergy in New Zealand.
 - 24.5 Deliver a Circular Economy and Bioeconomy Strategy developed with engagement with iwi/Māori and key stakeholders.
 - 24.6 Support R&D and accelerate investment in the bioeconomy to successfully commercialise bioeconomy technology and products, including marine and terrestrial derived products. (This could include manufacturing clusters and infrastructure e.g., bio-pilot plants).
25. These proposed actions do not have immediate legislative or regulatory implications, but may lead to officials exploring legislative or regulatory changes in the future.

Invest in data collection and research

26. There is much we can learn from other countries, but we also need our own evidence base to provide information to support efficient investment decisions about market opportunities and develop circular approaches that will work in a New Zealand context. This action will:
- 26.1 Develop ‘resource flow maps’ across systems and sectors.
 - 26.2 Build evidence on economic impacts, emissions reduction and opportunities through data collection and research.
 - 26.3 Support a baseline measure of the extent of circularity in the economy (e.g. using the Circularity Gap report methodology), and develop a measurement framework with indicators.

Integrate and build circular practices across government, communities, and businesses

27. There are already promising first steps being taken across the public and private sector to move to a circular economy. This includes our public sector procurement’s ‘broader outcomes’, Kainga Ora’s commitment to deconstruction, and initiatives such as XLabs set up to help businesses to improve the circularity of their business models.

- 28. To build from these achievements and unlock the potential of the circular economy, we need to ensure we are working efficiently and making the best use of Aotearoa New Zealand’s bioresources.

Support for businesses moving to circular operating models

- 29. This action involves the Government providing funding for industry-led programmes that increase the adoption of circular models by business.

- 30. **Constitutional conventions**

- 30.1 **Constitutional conventions**

- 30.2 **Constitutional conventions**

Accelerating the sustainable and secure supply and uptake of bioenergy in New Zealand, that avoids adverse effects on indigenous vegetation and habitats

- 31. Bioenergy is a priority area for supporting decarbonisation of New Zealand energy and transport fuels. We propose developing a work programme that would guide the efficient and sustainable supply of biomass to support the uptake of bioenergy for decarbonisation. There is large potential for bioenergy to displace fossil fuels used in industry, transport, and households – sectors where significant emissions reductions are required in order to meet the first three emissions budgets. Addressing regional mismatches between the supply and uptake of bioenergy will be a key consideration.
- 32. We need to address potential shortages in a sustainable way that supports our vision of moving towards a circular economy, while also avoiding biodiversity degradation, particularly indigenous biodiversity, and considering community concerns around land use change and novel energy crops. Due to the long-term nature of growing certain bioenergy feedstocks, planning for the supply and use of bioenergy in the 2030s needs to begin in the coming years.
- 33. Our approach to accelerating the supply and uptake of bioenergy will also need to enable iwi/Māori, who have commercial and cultural interest in the bioeconomy, to participate in and benefit from the bioenergy industry and consider equitable transition impacts and solutions. For example, decentralised production of bioenergy for local use could support regional economic development.

⁶ Southern Initiative, 2021 Creating shared prosperity through the circular economy by Tuputau Lelaulu - Flipsnack

34. Submitters on the draft Emissions Reduction Plan also expressed mixed views on the scale of woody biomass resource in New Zealand. Some submitters believe that bioenergy feedstocks are underutilised and underdeveloped while others are concerned that there will not be enough bioenergy feedstocks to meet our future energy needs. This indicates that information and coordination gaps could be preventing the efficient use of bioenergy.
35. The bioenergy work programme will need to be consistent with both the broader bioeconomy framing and the Energy Strategy⁷, and could consider the following actions:
- 35.1 Building on and coordinating work that is already underway to develop a baseline analysis of supply and demand of bioenergy feedstocks at a regional level.
 - 35.2 Developing a framework for determining bioenergy supply type preference, consistent with an overarching bioeconomy framework and its broader national benefit and wellbeing context (e.g., energy from residuals and organic waste as a preferred option, energy from non-waste biological feedstocks a secondary option, with little or no acceptance of non-biological waste to energy). This should consider the alternative uses of biomass to produce high-value products, such as biomaterials and biochemicals, and how biomass supply chains can be optimised for the bioeconomy.
 - 35.3 Considering best use of bioenergy sources based on the broader bioeconomy framework, the Energy Strategy (including R&D on possible fuel sources such as preferred species for biomass) and a plan for actions to decarbonise the industrial sector in the Energy and Industry chapter of the ERP.
 - 35.4 Enabling market facilitation to match the supply and demand of bioenergy, e.g. helping establish long-term agreements between feedstock producers (forestry or farms etc.), intermediaries and end users, and aggregating small scale suppliers to meet large scale demand. (This work is already underway through the Forestry and Wood Processing Industry Transformation Plan).
 - 35.5 Increasing the supply of bioenergy feedstocks through growing more via short-term rotation crops, supporting the collection of waste residues (for example, biological waste from residential areas, agriculture, horticulture, viticulture, and food processing). This action could also consider incentivising the collection and management of forestry slash, wood processing, and other residuals through coordination, regulatory or other approaches.
36. **Constitutional conventions**
37. Te Uru Rākau – New Zealand Forest Service has been engaging on the findings of the New Zealand Wood Fibre Futures Project (WFF) with agencies leading the Forestry, Circular Economy and Bioeconomy, and Energy and Industry chapters of the Emissions Reduction Plan. The Circular Economy and Bioeconomy Chapter, in

⁷ See the Energy and Industry chapter of the Emissions Reduction Plan

particular, includes initiatives that are based on key recommendations found in the WFF Project.

38. Additional work to develop the bioeconomy subject to further resourcing could include:

38.1 Considering regulatory measures that may be required to support sustainable and thriving bioenergy sector. This could include measures such as requirements to provide market information, sustainability criteria and lifecycle greenhouse gas emissions methodologies for bioenergy resources. (Sustainability criteria and greenhouse gas measurement methodologies are currently only being developed for transport biofuel, and for alignment with international standards).

38.2 Investing in large-scale demonstration projects and private/public partnerships such as advanced bioenergy clusters, increased use of wood processing, and further investigating short-term rotation crops for bioenergy.

39. Constitutional conventions

39.1 Constitutional conventions

39.2 Constitutional conventions

Developing a Circular Economy and Bioeconomy Strategy


40. Agreeing in part with the Commission’s recommendation 14 and 15, we recommend the Emissions Reduction Plan includes an action to develop and deliver a consolidated Circular Economy and Bioeconomy Strategy. A strategy that covers both will help aid co-ordination and alignment, reflect the synergies between circular practices and valuing our bioresources, and will make it easier for stakeholders to engage.

41. This will be carried out with ‘meaningful engagement’ with iwi Māori, rather than ‘in partnership’ as recommended in the Commission’s final advice, recognising that ultimate responsibility for delivering a more circular economy lies with the Crown.

42. Developing and delivering a Circular Economy and Bioeconomy Strategy recognises the need to take an integrated economic approach across the Emissions Reduction Plan that will enable us to rethink how we produce and consume everything to design out pollution and maximise wellbeing. The proposed new Waste Strategy and associated work programme will create an important platform, but will not be sufficient to achieve the breadth of economic and social change that is needed.

43. Agreeing with the Commission’s recommendation to do so, we propose that the Circular Economy and Bioeconomy Strategy be developed during the first emissions budget. A dedicated focus on the circular economy and bioeconomy are new policy areas for New Zealand and will require additional resource to be funded through a future budget before the strategy can commence.
44. The strategy will be created with meaningful engagement with iwi/Māori, and stakeholders such as communities, researchers, and industry.
45. The strategy will look at five focus areas:
 - 45.1 **Moving to a more circular public sector** – Achieving the vision of a circular New Zealand economy by 2050 must be supported by the public sector. The strategy will consider specific policies and programmes needed to move to a circular public sector, such as measurement and reporting, procurement, accountability and coordination, regulatory settings, planning, and other functions.
 - 45.2 **Innovation, skills and investment** – The strategy will consider the skills and capability development, public and private investments, and innovation needed to accelerate bioeconomy niches and the move to a circular economy and thriving bioeconomy. This will include how businesses, government, research organisations, iwi/Māori, and communities can work together to achieve a shared vision of a circular economy, including the use of mission-led innovation/or launch pads.
 - 45.3 **Aligning regulatory systems and the business environment** – We need to ensure the regulatory and operating environment for businesses, consumers and communities is designed to incentivise circular behaviour, and enable New Zealanders to take advantage of innovative technology and approaches. The Circular Economy and Bioeconomy Strategy will develop principles for aligning the regulatory environment and the broader business operating environment, identifying priority areas for change.
 - 45.4 **Enabling Māori to benefit from a circular economy and thriving bioeconomy** – Understanding and applying te ao Māori and mātauranga Māori to the development of the Circular Economy and Bioeconomy Strategy will require meaningful engagement with iwi/Māori to ensure Te Tiriti is upheld. Supporting actions will need to be developed collaboratively to provide for and protect the interests of Māori and to ensure they reflect local contexts and the interconnection between systems.
 - 45.5 **A bioeconomy framework to guide the optimal use of our bioresources to maximise wellbeing** – New Zealand’s biological resources will need to be managed in a sustainable way that supports our vision of moving towards a circular economy. The key deliverables for this component of the strategy will be establishing a baseline of bioresources and an analysis of supply and demand, and developing a framework to help develop the bioeconomy to support the wellbeing of all New Zealanders, and in alignment with Te Mana o Te Taiao, Aotearoa Biodiversity Strategy.

Support for R&D to successfully commercialise and ensure uptake of bio-based products, including terrestrial and marine based products

46. Transitioning to a thriving bioeconomy will require new technology, R&D and infrastructure to turn our bioresources into new bio-based products and biomaterials (e.g. low-carbon wood products, marine derived pharmaceuticals). These products will enable business to replace petroleum-based or high-emissions products and materials with sustainable bio-based products.
47. This action would involve building on existing R&D funding in this area (for example Cawthron’s R&D on marine-derived products) and the Bioresource Processing Alliance, as well as potentially new initiatives (subject to future budget approval).

48. There are also opportunities to build thriving innovative hubs or manufacturing clusters where bioenergy, biofuel and other producers of bio-based products are co-located with biomass suppliers, together with R&D experts to attract investors and fuel the bioeconomy.
49. While this action aligns with existing strategic priorities for the science system and Te Uru Rākau’s work programme, this action is currently unfunded and funding cannot be guaranteed.

MBIE considered several other feasible actions to include in the Emissions Reduction Plan

50. The actions recommended in this paper were determined through cross-agency workshops, an assessment of international best practice, consultation with stakeholders and experts through the Emissions Reduction Plan consultation, officials’ meetings with Ministers, Budget 2022 prioritisation, and consideration for what could be delivered with expected available resource.
51. Other feasible options for actions to include in the Emissions Reduction Plan that were considered but not recommended include:
 - 51.1 Developing separate circular economy and bioeconomy strategies.
 - 51.2 Incorporating circular economy into a potential government economic strategy.
 - 51.3 An Action Plan to accelerate the New Zealand bioeconomy market.
 - 51.4 Supporting business, iwi, and communities to transition to a circular economy through a circular sustainable development fund.
 - 51.5 A mission for a circular Auckland economy and using mission-led innovation for moving to a circular New Zealand.

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- 51.6 Basing the circular economy strategic areas around the 21 circular actions recommended by the Circularity Gap report based around societal needs (estimated at reducing a country’s emissions by up to 40 per cent⁸).
- 51.7 Providing funding for demonstration projects.
- 51.8 Considering changes to education curriculum, tax system, and border settings.
- 51.9 Reviewing regulatory settings to encourage more purpose-led business.

Accountability

- 52. The Circular Economy and Bioeconomy strategy will require a new way of thinking and working for the public sector, and meaningful engagement processes will be resource-intensive for both Government and partners. These are new to New Zealand policy areas and the strategy development requires dedicated staffing and resources in excess of what can be delivered within existing agency baselines.
- 53. The strategy will be cross-cutting and require buy-in from a range of agencies. However, the Climate Change Commission recognised the need for clear responsible ministers and agencies for the circular economy and bioeconomy respectively.
- 54. We propose responsible and supporting Ministers for the proposed actions from 2022, as follows:

ERP Action	Responsible minister	Supporting ministers
Data collection and research	Minister for Economic and Regional Development	Free and frank opinions [Redacted]
Integrating circular practices	Minister for Economic and Regional Development	Free and frank opinions [Redacted]
Support for businesses moving to circular operating models	Minister for Economic and Regional Development	Free and frank opinions [Redacted]
Accelerate the sustainable supply and demand for bioenergy	Minister for Energy and Resources Free and frank opinions [Redacted] Free and frank opinions [Redacted]	Free and frank opinions [Redacted] [Redacted] [Redacted]
Support R&D initiatives and accelerate investment in the bioeconomy to support commercialisation and successful uptake of bio-based products	To be determined when resources are allocated	

⁸ The Circularity Gap Report <https://www.circularity-gap.world/2021>

- 55. Agencies are continuing to scope the work required on the Circular and Bioeconomy Strategy, and responsible ministers and agencies will be decided when resourcing decisions on this future action is made.
- 56. To support the effective delivery of the Strategy we need to ensure delivery maximises cross-agency collaboration and accountability through governance and working groups.

Financial Implications

- 57. The exact financial implications of the Emissions Reduction Plan actions outlined in this paper are still being finalised as part of Budget 2022 and future Budget processes. Approximate financial implications are listed below.
- 58. The development of the Circular Economy and Bioeconomy Strategy will require dedicated staffing and resources in excess of what can be provided within existing agency baselines and is therefore contingent on future budget funding. Constitutional conventions

 This includes \$1.9m for data and evidence including establishing a circular economy base line measure.
- 59. Supporting businesses and communities to move to a circular economy with a thriving bioeconomy provides an opportunity to help businesses reduce emissions and other pollution while pursuing future sustainable economic development opportunities. Further knowledge and costings of these opportunities will become clearer during the strategy development and will inform future Budget bids.

60. Constitutional conventions

61. Constitutional conventions

62. Constitutional conventions

Legislative Implications

- 63. There are no legislative implications to this proposal, but the work may lead to recommendations with legislative impacts.

Regulatory Impact Statement

64. An overarching Regulatory Impact Statement has been prepared by the Ministry for the Environment (with input from other agencies) to support the overall Emissions Reduction Plan.
65. The proposals in this paper do not have immediate legislative or regulatory implications. The Ministry of Business, Innovation and Employment will engage with the Treasury's Regulatory Impact Analysis Team to confirm the scope of Regulatory Impact Statements to support any future decisions by Cabinet on policies that will have regulatory impacts.

Climate Implications of Policy Assessment

66. The Climate Implications of Policy Assessment (CIPA) team has been consulted and confirms that the CIPA requirements do not apply to this paper as the initiatives either do not have a direct emissions impact, do not meet the emissions abatement threshold to require a CIPA, or do not have enough certainty to be accurately quantified.
67. While the initiatives in this paper do not require a CIPA, some of the initiatives will play an important role in enabling potentially significant future emissions reductions. International evidence suggests doubling the circularity of the global economy to 20 per cent would cut global greenhouse gas emissions by 40 per cent from 2019 levels and keep forecast temperature increases on a trajectory well below 2°C.⁹
68. The Ministry of Business, Innovation and Employment will work with the CIPA team to disclose the emissions impacts of proposals to Cabinet as further decisions are sought, as appropriate.

Population Implications

69. Challenges and opportunities will arise from the transition to a low-carbon, circular economy with a thriving bioeconomy. For example, switching fuel types could increase business costs, which could then be passed on to more vulnerable groups. Alternatively, introducing rules around the right to repair could be an opportunity to benefit poorer households that typically purchase poorer quality goods.
70. There are no specific implications for population groups arising as a direct result of this paper. However, it is likely that further development of the proposals in this paper will have a range of distributional impacts. Analysis of distributional and equitable transition impacts of proposals will be considered as policies are developed. Additionally, analysis of distributional impacts will be considered within strategies that support and underpin the move to a circular economy and thriving bioeconomy (e.g. the Circular Economy and Bioeconomy Strategy, the Energy Strategy, and the Waste Strategy). For example:
 - 70.1 Developing knowledge about distributional impacts and opportunities, including as they relate to circular economy and bioeconomy.

⁹ The Circularity Gap Report 2021, prepared by the not-for-profit Circle Economy

- 70.2 Understanding impacts on different groups of people (for example, youth, seniors, people with disabilities, iwi/Māori, Pacific peoples, rural communities, and other groups), and considering how to enable an equitable transition.
- 70.3 Understanding implications for iwi/Māori, including access to energy and equitable transition impacts as above, and implications for Māori-owned assets and businesses.
71. The Government’s work toward a circular economy will be progressed with the principle of ‘Delivering equitable and inclusive outcomes’. This will be given effect through government’s proposed Circular Economy and Bioeconomy Strategy.

Te Tiriti o Waitangi Implications

72. Māori have a significant stake in climate action and have Treaty-based rights and interests in natural resource use and management. It will be critical when implementing final proposals to uphold Treaty of Waitangi principles. Māori and the Crown must work together in good faith to ensure our climate emergency response appropriately recognises Māori rangatiratanga and kaitiakitanga and the kawanatanga of the Crown.
73. The CCRA requires that the Emissions Reduction Plan includes a strategy to recognise and mitigate the impacts on iwi/Māori and ensure they have been adequately consulted on the plan. Ministry for the Environment officials are separately progressing work on ensuring an equitable transition for iwi/Māori and this will be considered by Ministers early in 2022.
74. The proposed Circular Economy and Bioeconomy Strategy would be developed with meaningful engagement with iwi/Māori and in alignment with the He Ara Wairoa framework used by Treasury to apply an indigenous and uniquely New Zealand approach to lifting living standards for all. A more circular economy aligns with a te ao Māori world view, which starts from a notion of human activity operating from a position of abundance, or rauora, which is vital for the sustainable and equitable use of our resources.
75. Any incorporation of mātauranga Māori should consider the Wai 262 / Te Pae Tawhiti cross-agency work programme, which promotes innovation relating to mātauranga Māori and ensures the benefits of its utilisation and protection are realised by Māori and all of Aotearoa.
76. The Circular Economy and Bioeconomy Strategy will also consider how to ensure and enable Māori to benefit from a circular economy and thriving bioeconomy.

Human Rights

77. The proposals in this paper are not in any way inconsistent with the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993.

Consultation

78. The following government departments and agencies have been consulted on this Cabinet paper: Ministry for the Environment; the Treasury; Ministry of Foreign Affairs and Trade; Ministry of Education; Ministry for Primary Industries; Energy Efficiency and Conservation Authority; Ministry of Transport; Waka Kotahi – New Zealand Transport Agency; Te Tūāpapa Kura Kāinga – Ministry of Housing and Urban Development; Kāinga Ora – Homes and Communities; Department of Conservation; Te Puni Kōkiri; Te Uru Rākau – New Zealand Forest Service; Department of Internal Affairs.

Communications

79. There will be no proactive communications of this proposal. Communications will be developed in line with any decisions made as part of the Emissions Reduction Plan and Budget 2022.

Proactive Release

80. This paper will be proactively released within 30 days of decisions being taken, with redactions as appropriate under the Official Information Act 1982.

Attachments

Annex 1: Response to the Climate Change Commission's recommendations on the Circular Economy and the Bioeconomy

Recommendations

The Minister of Energy and Resources and the Minister for Economic and Regional Development recommend:

1. **Note** we are seeking agreement to actions to be included in the Circular Economy and Bioeconomy Emissions Reduction Plan chapter.
2. **Note** that many aspects of the circular economy and bioeconomy are related and complementary, as more circular use of our renewable resources will help New Zealand make the shift to a low-emissions economy, but that circular economy and bioeconomy also have applications that are distinct from each other.
3. **Agree** to the following actions to be included in the Circular Economy and Bioeconomy chapter of the Emissions Reduction Plan:
 - 3.1 Invest in data collection and research to measure baselines and indicators of progress towards circularity and the impact on emissions.
 - 3.2 Integrate and build circular practices across government, communities, and businesses.
 - 3.3 Support for businesses moving to circular operating models.

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- 3.4 Accelerate the sustainable and secure supply and uptake of bioenergy in New Zealand, that avoids adverse effects on indigenous vegetation and habitats.
- 3.5 Deliver a Circular Economy and Bioeconomy Strategy developed with engagement with iwi/Māori and key stakeholders.
- 3.6 Support R&D and accelerate investment in the bioeconomy to successfully commercialise bioeconomy technology and products, including marine and terrestrial-derived products.
- 4. **Agree** that the lead Ministers for the actions in recommendation 3 above be the Minister for Economic and Regional Development (for actions identified in recommendation 3.1,3.2 and 3.3) and the Minister of Energy and Resources and Minister of Forestry (for the action identified in recommendation 3.4).
- 5. **Note** responsible Ministers and agencies for recommendations 3.5 and 3.6 will be decided when further decisions on these actions are made.
- 6. **Agree** that the Circular Economy and Bioeconomy Strategy will be developed with meaningful engagement with iwi/Māori.
- 7. **Agree** that the Circular Economy and Bioeconomy Strategy will include exploring the following five focus areas:
 - 7.1 Moving to a more circular public sector.
 - 7.2 Innovation, skills, and investment.
 - 7.3 Aligning regulatory systems and the business environment.
 - 7.4 Enabling Māori to benefit from a circular economy and thriving bioeconomy.
 - 7.5 A bioeconomy framework to guide the use of New Zealand’s bioresources to maximise wellbeing.
- 8. **Agree** that the Circular Economy and Bioeconomy Strategy will consider distributional impacts, impacts on minority groups, and how to ensure an equitable transition through meaningful engagement.

Authorised for lodgement

Hon Dr Megan Woods
Minister of Energy and Resources

Hon Stuart Nash
Minister for Economic and Regional
Development