

27 May 2021

Ministry for the Environment
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New Zealand

By email: mitigation@mfe.govt.nz

Canterbury Mayoral Forum Submission on the Ministry for the Environment's consultation document *Phasing out fossil fuels in process heat: national direction on industrial greenhouse gas emissions*

1. The Canterbury Mayoral Forum (CMF) thanks the Ministry for the Environment for the opportunity to make a submission on the consultation document.
2. In this submission the CMF has provided comment on the key issues for Canterbury in the consultation document.

Background and context

3. The CMF comprises the Mayors of the ten territorial local authorities in Canterbury and the Chair of the Canterbury Regional Council (Environment Canterbury), supported by our Chief Executives. The purpose of the Forum is to promote collaboration across the region and increase the effectiveness of local government in meeting the needs of Canterbury's communities.
4. All Canterbury councils actively participate in the Forum: the Kaikōura, Hurunui, Waimakariri, Selwyn, Ashburton, Timaru, Mackenzie, Waimate and Waitaki District Councils, the Christchurch City Council and the Canterbury Regional Council (Environment Canterbury).

Mayors standing together for Canterbury.

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5. The following submission has been developed with input from across Canterbury councils. Our submission focuses on matters of general agreement between the members of the CMF.
6. We note that Environment Canterbury is also making an individual submission. The CMF supports careful consideration of this submission.

Mayoral Forum's *Plan for Canterbury*

7. The CMF published the *Mayoral Forum's Plan for Canterbury* in September 2020, which sets out the CMF's five key priorities in this local government term.
8. One of the key priorities is:
climate change mitigation and adaptation – reducing our carbon footprint, building community resilience and making our infrastructure as strong as it can be.
9. Responding to climate change underpins the priority the CMF gives to environmental management and extends to:
 - measuring and reducing our own carbon footprint as councils
 - contributing to the design of central government policy and regulation and advocating for strong central government leadership through multi-party agreements to minimise political short-termism
 - a co-ordinated regional climate change risk assessment
 - planning ahead in our Long-Term Plans and 30-year Infrastructure Strategies to make our infrastructure as resilient as it can be
 - systematically factoring climate change mitigation and adaptation into our planning documents including the proposed Regional Policy Statement in 2023.
10. Given the importance of climate change, in 2019 the CMF established a Climate Change Steering Group, made up of a subgroup of mayors and chief executives, which maintains a watching brief on climate change matters for the Mayoral Forum and provides political support for and oversight of the important work of the regional climate change working group.
11. We welcome this opportunity to provide Canterbury's view on the proposals to phase out fossil fuels in process heat to reduce greenhouse gas emissions.

General comments

12. The CMF acknowledges the phasing out of fossil fuels is a key part of New Zealand's response to climate change. We therefore support the intent of the proposals in the consultation document. We also strongly support the intent to provide clear and nationally consistent direction on this issue.
13. To provide context for our comments in this submission, it is useful for MfE to be aware of the comments made in our submission to the Climate Change Commission on the proposed package of actions for the heat, industry and power sectors. In summary, we:
 - noted that our support for the Climate Change Commission's proposed actions depends on continuing to decarbonise the energy system
 - commented that setting a target of 60% renewable energy by 2035 would signal the required emissions reductions across the full energy system.

14. The CMF notes Environment Canterbury estimates that the potential impact in Canterbury from permanently switching from coal use to biomass could result in a 40-fold reduction in greenhouse gas emissions. However, switching from coal to electricity would not achieve as great a reduction in Canterbury, with an estimated 4-fold to 20-fold reduction in greenhouse gas emissions, depending on the source of the electricity generated.
15. While we support the intent of the proposals, the CMF notes, however, that there is still much work to be done on the detail of transitioning the sectors that will be significantly impacted by the changes. The key challenges our region will face in terms of the transition are the impact from changes to the energy supply, the ongoing environmental impact from new energy sources, and the structure of the regulatory framework that will ensure change.
16. In Canterbury, the manufacturing sector will clearly be the most affected by these changes. In particular, businesses that dry milk powder, or process meat and vegetable products will be significantly impacted. To achieve enduring change, the transition process must incentivise industry to long-term, rather than interim, solutions and energy sources.
17. The remainder of this submission addresses the key challenges identified above.

Energy supply chain impacts

Biomass

18. Biomass demand in Canterbury will most likely need to be met from within the region, given the major limitations on the economic viability of transporting biomass. Currently almost all biomass used in Canterbury is a waste by-product of existing forestry activities. We note that the availability of supply has not been investigated in Canterbury, and there may be a need to develop a sustainable future supply through dedicated bioenergy crops.
19. It is clear that greater volumes of biomass would be required to achieve the same levels of heat. In Canterbury we have large areas of highly productive land and it is important this be available for production and not dedicated energy crops to meet the new demand. The transition needs to be matched with a nationwide shift towards greater timber use, increasing the availability of waste by-products.

Other technologies

20. Within Canterbury's waste to landfill is a significant volume of waste with a high calorific value. Currently it is treated as landfill because there is no other appropriate place for it to go. This includes low value plastics, agricultural plastics and organic (biomass) wastes. The CMF suggests consideration is given to utilising emission-free and low-emission technologies for using landfill waste to generate process heat. For example, pyrolysis (a process of temperature decomposition of organic material in the absence of oxygen).

Electricity

21. The CMF considers that a large-scale shift to electricity in Canterbury is likely unachievable within the proposed timeframes. The carbon cost to do so should also be considered.
22. Potentially, a regional source of biomass fuel may have a smaller impact than shifting to electricity, generated outside of the region. Decentralised, localised electricity generation and distribution provides our region with longer term resilience.

Economic impacts

23. It is very likely that there will be direct and indirect economic impacts for the region. These are:
- the costs of transition. Boilers will have to run on a significantly higher fuel feed rate to maintain the same heat output as a coal boiler. Some boilers may be able to be adjusted, but this may not be possible for boilers already close to capacity. These businesses may swap to electricity if upgrading plant, or have to close. Upgrading plant has a direct economic cost to businesses and it is important any upgrade is a viable long term solution. There is a further cost associated with disposing of plant prior to its used by date.
 - as demand for low-cost biomass increases, industries that are currently reliant on that source may be impacted (for example, domestic heating pellet suppliers). This means that the economic impacts of the proposals may stretch further than those directly affected by them.
24. Due to the scale of change required, the CMF supports further consideration of the most appropriate energy supply chain. In addition, as noted earlier, we urge incentivising the transition towards preferred long-term solutions, rather than interim solutions or sources.

Environmental impact of additional emissions

25. The CMF notes there is some concern that relying on the low emissions factor for biomass to guide policies on emissions reduction may be counterproductive to climate management goals in the short-term.
26. The CMF notes that burning biomass can release instantaneously 1.5 times more CO₂ than coal, and 3 times more CO₂ than natural gas. The low emission rate given in the New Zealand inventory relates to the offset from trees growing. The lag time between biomass growth (5-30 years) and combustion (instantaneous) may result in an increase in atmospheric greenhouse gases over that period.
27. While this should even out over time, the short-term effects may have not been adequately considered and will not be captured by the emission factors used in carbon accounting in New Zealand. We note that native trees can take longer to sequester carbon, so the timeframes for full sequestration are potentially longer than if introduced species are used.
28. The CMF stated our support for growing new native forests to create a long-lived source of carbon removal in our submission to the Climate Change Commission's draft advice package. In doing so, we noted our support for the observation that although native forests sequester at slower rates than exotic planted forests, native forests continue to remove carbon for hundreds of years. We would also like to take this opportunity to caution against incentivising exotic forestry at a scale that is not in the long-term interests of New Zealand. We are particularly keen that climate change initiatives incentivise afforestation that complements the freshwater and biodiversity outcomes that New Zealand is seeking to achieve.
29. The CMF understands that the shift will result in a significant decrease in the amount of sulphur compounds discharged. This is a positive co-benefit. In addition, a shift will also impact particulate matter levels. While some of these may be able to be controlled through consenting, the overall impact of the shift is unclear. Certainty for industry that an upgraded burner will be consented at a reasonable cost is required.

Regulatory approach and framework

30. There are some areas within the proposals that require greater consideration of the regulatory approach to ensure the effective control of greenhouse gases as a discharge to air.

National Policy Statement and National Environmental Standard

31. The CMF supports a new combined National Policy Statement and National Environmental Standard that is clear and directive.
32. We note that without it, regional councils have no specific rule structure and greenhouse gas emissions would be a discretionary activity under current the resource management legislation. It could be relatively easy to argue that the contribution is minimal, the activity continues, and the cumulative impact is overlooked. In addition, given the urgency of action required, without clear policy, updating plans and clarifying ambiguity (potentially through the court) will simply take too long. The proposed National Environmental Standard therefore provides a welcome opportunity to establish a nationally consistent framework.
33. Further, the new combined statement and standard would support clarification of the precedence of reducing greenhouse gas emissions with other matters (for example, environmental, social and economic).
34. To support the implementation of a new National Policy Statement and a National Environmental Standard, the CMF suggests guidance and appropriate templates be developed that address the matters to be covered in an emissions reduction plan, how to approach greenhouse gas emissions reduction when developing plan rules and assessing consents (including which NES would take precedence), how to undertake a feasibility assessment, and how to approach conditions, if based on carbon equivalence. The CMF notes that if compliance with conditions cannot be monitored without expert input, they are impracticable to enforce.
35. The CMF cautions that implementation poses a significant communications challenge. We suggest this may be best led at a national level, if this is a nationwide issue.

Consenting

36. The CMF has concerns about regional councils' ability to effectively control greenhouse gas emissions as a discharge to air as consent conditions are limited to controlling the source of the emissions after considering the effect at the boundary, at ground level. A different regulatory approach is therefore required for discharge of greenhouse gas emissions, and the CMF supports further clarification regarding the approach to a physical discharge of greenhouse gases and regulation based on emission factors for carbon accounting.
37. The CMF also supports:
 - a combination of addressing fuel specific sources and fuel neutral thresholds in the regulation. For example, a prohibition on coal and a threshold-based approach for other fuel sources
 - clear phase-out dates to drive change and investment in research and developing alternative sources

- flexibility within the regime, such as:
 - exemptions, particularly for public-benefit agencies (e.g. hospitals) and emergency supplies for vital infrastructure
 - limiting duration of any consents, explicit at the national level to avoid uncertainty
 - allowances in the absence of viable alternatives, linked to a need to install new infrastructure e.g a 10-year maximum duration.

38. The CMF has concerns about the proposal for mandatory consent reviews. We note that review processes can take significant time and cost, particularly if consent holders choose to oppose the review. In addition, the environmental gains may be relatively little for the time and costs incurred, even if limited to the larger emitters. We understand that in Canterbury, only 4 of the 17 largest active coal-using consents are already consented to burn both coal and woody biomass materials. Mandatory consent reviews also puts pressure on the availability of industry experts, affecting independence and the overall efficacy of the reviews.

39. The CMF considers a better option could be to commit resources into other processes which achieve desired outcomes more effectively and efficiently, with reviews available as an option. This could incorporate reducing the energy need.

Non-statutory nature of guidance

40. The CMF considers that guidance on how to implement the package would be useful, especially until such a time as the resource management reform has been finalised.

41. We do have some concerns about the potential content of the guidance and note that given its non-statutory status it does not have to be applied in consenting processes. We therefore consider it essential to carefully consider what sits in the guidance verse what sits better in the NPS or NES to avoid any inconsistent application nationally.

Permitted activities

42. The CMF also notes the challenges to reducing emissions of permitted activities. Environment Canterbury's permitted activities limit is 500kW; there are potentially vast numbers of smaller burners with a large cumulative impact, the location and nature of which are unknown.

Conclusion

43. In summary, the CMF is supportive of the intent of these proposals. We recognise and appreciate there is a strong need to address the decarbonisation of process heat activities, and to do so with urgency.

44. While we note the Ministry has recognised how important a just transition is in the shift that will be required by affected industries, we reiterate our comments that the proposals will impact a range of process heat users in Canterbury and beyond. These changes will have significant cost implications and could cause a range of disruptions to their operations. The details of how the transition will occur requires further consideration.

45. Thank you once again for the opportunity to make a submission on this consultation document.
46. Our Secretariat is available to provide any further information or answer any questions the Ministry may have about our submission. Contact details are: Maree McNeilly, Canterbury Mayoral Forum Secretariat, secretariat@canterburymayors.org.nz , 027 381 8924.

Ngā mihi

A handwritten signature in black ink, consisting of a stylized 'S' followed by a horizontal line that tapers to the right.

Sam Broughton
Mayor, Selwyn District Council
Chair, Canterbury Mayoral Forum