

# Talking Cents

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*Talking Cents is an ecumenical group charged by the Auckland Anglican Diocesan Council to promote an alternative to current economic and political thought, and to encourage debate within the church.*

*Ministry units are encouraged to distribute these articles. This article is contributed by Mary Betz, Catholic spiritual director and writer on ecology, justice, scripture and spirituality.*

## Radical Change and the 2021 Draft Advice on Climate Change

Lenten Sundays this year began with Jesus' call to repent, in preparation for the coming of God's realm. Repentance is *metanoia*, a transformation, a radical change of heart, a deliberate and discernible movement toward God and the kingdom values of compassion, justice and peace.

We have an opportunity for such transformation in the recent report<sup>1</sup> from He Pou a Rangi, the Climate Change Commission. It charts ways in which many sectors in Aotearoa contribute to carbon emissions, and recommends a path for our contribution to keep temperatures within 1.5°C above pre-industrial levels.

Until now, despite its international commitment and rhetoric to the contrary, Aotearoa has had a woeful response to climate change. Unlike the UK and many European countries whose carbon emissions have been steadily decreasing, our net emissions have increased by 57 percent between 1990 and 2018.<sup>2</sup>

The *2021 Advice Report for Consultation* (189pp; I only dipped into the 650pp Evidence Report) is an impressive gathering of data, modelling, weighing of strategies and recommendations for many sectors individually and jointly. It draws explicitly on a Māori worldview perspective to frame and anchor its analysis.

If Government approves and actions the report, which recommends policy, regulation and incentives for change – and if ministries, local government, industry and individuals follow the lead – then we will be on the path to carbon neutrality by 2050 (except for biogenic methane, for which Aotearoa has a separate budget – more on this later).

The Commission addresses human dimensions in the transition needed for decarbonising our economy. These include collaboration in developing and implementing policy that supports the ongoing practices by tangata whenua of rangatiratanga, mana motuhake and kaitiakitanga and the appropriate interpretation of these practices. It promotes taking

opportunities to reduce inequality, strengthen communities, and invest in people by building their skills and supporting those affected by change who are least able to adjust. It signals the need for individual behaviour change, but encourages changes at government and industry level that will better enable individuals to make climate-friendly choices. Some of the report's recommendations are discussed below.

### Transport

Land transport would be almost completely decarbonised. No further internal combustion engine light vehicles (cars, light trucks) would be imported after 2032. This means 40 percent of such vehicles would be electric by 2035, and some incentives would be needed. Medium and heavy vehicles will be 15 percent electric by 2030 and 84 and 69 percent respectively by 2035 (a big jump). Some freight would need to be switched to rail and coastal shipping, and further rail would need to be electrified. Biofuel to be manufactured in Aotearoa would comprise 3 percent of domestic fuel demand by 2035.

Built into the transport emissions budget is the assumption that average distances people travel will be reduced because of more compact urban areas and working from home, and that the proportion of travel by walking, cycling and public transport will increase by 25, 95 and 120 percent respectively by 2030. Local councils and individuals will have to respond quickly to enable these goals to be met.

### Buildings

Home energy efficiency would increase by continuing to improve insulation, and commercial buildings would have higher building standards. Decarbonising energy for heating, hot water and cooking would mean electric alternatives would be installed in new buildings, and no further LPG connections would be made after 2025. Existing buildings would have until 2030 to make the transition. By 2030 all commercial and public building use of coal boilers would be eliminated, as present systems require replacing.

<sup>1</sup> He Pou a Rangi, *2021 Draft Advice for Consultation*, <https://www.climatecommission.govt.nz/get-involved/our-advice-and-evidence/>

<sup>2</sup> Marc Daalder. 'Our climate challenge, year by year.' Newsroom. 4 Feb 2021. <https://www.newsroom.co.nz/the-change-thats-needed-year-by-year>

While the report very briefly mentions that increased use of timber building materials rather than concrete and steel would decrease carbon emissions, this does not feature in its recommendations. Other ways to decarbonise energy in buildings would be to raise building standards for all new buildings, to use building materials with a lower carbon footprint, to design them to require little or no heating and cooling, and to install solar panels on roofs, not only of homes, but of schools, commercial and light industrial premises.

### **Energy**

Increased renewable energy generation (wind and solar) is to be built in the early 2020s, paused and then resumed in the late 2020s. This presumes the closing of Tiwai Point and the redirection of its considerable electricity use (13 percent of total New Zealand demand) to serve increasing electricity demand by homes, industry and transport in that interim. With the largest demand near population centres in the North Island, electrical transmission and distribution infrastructure would have to be expanded. Some high-emission geothermal fields would close by 2030. Huntly coal-fired generation would be closed sometime this decade, but gas generation is said to be needed there until at least 2035 to meet daily and seasonal peaks in demand. Would we not be wise to decrease need for this top-up gas generation for daily home peak demand by implementing pricing schemes that encourage non-peak time electricity use?

Coal use for food processing would be eliminated by 2037, which would require the equivalent of closing one or two very large dairy processing plants each year up to that time. Aotearoa has an under-utilised supply of biomass (currently left as logging debris), which is to be used for generation in the pulp and paper industry.

### **Agriculture**

Biogenic methane and nitrous oxide are the two main agricultural greenhouse gases, and are produced by animal farming. Nitrous oxide is a long-lived gas and is included in the emissions to be carbon neutral by 2050. Biogenic methane, despite its intense atmospheric heating capacity, has been allotted its own emissions reduction schedule by the Commission due to its short life and the importance to the New Zealand economy of sheep and cattle farming. Both gases can be reduced mainly by reducing animal numbers.

Recommendations assume no new technology for biogenic methane reduction before 2035, that current trends of increases in productivity will continue, that some dairy land will be converted to horticulture and that better farm practices will be put in place. Even with these recommendations in place, Commission carbon emission targets would result in a need for a 5-7 percent further reduction in sheep and cattle numbers

from the 8-10 percent already planned between 2018 and 2035. Biogenic methane would be reduced by 3 percent by 2035. Post-2035, reductions would have to increase to 24-47 percent and would rely on new technology for selective breeding or methane inhibitor vaccines – or further reduction in animal numbers.

### **Forestry**

New forests on steep or less productive grazing land would bring 300,000 more acres into new native forest by 2035, and emissions budgets assume no further native deforestation after 2025. New exotic forestry of 380,000 hectares is already planned, but after 2030, more native than exotic forests will be planted due to their better carbon sink capability.

### **Waste**

Recovering and reusing waste is a part of ensuring that resources are used wisely and that they do not contribute to global warming. Organic waste going to landfills will need to decrease by at least 23 percent from 2018 to 2030 to help prevent creation and release of methane. Local governments will need to step up with education on separation of waste and options for composting and collection. Minor improvements in upgrading the capture of methane at some landfills is also factored in.

### **Some trade-offs**

The Commission acknowledges there would be 600-1100 jobs lost in the fossil fuel sector with the changes needed, but assumes that many people will be re-employed in the renewable energy sector. The modelling also suggests that under current conditions, the agriculture sector will have 4000 job losses by 2035, but under the Commission's recommendations, 400-700 fewer jobs would be lost to the forestry sector.

Even with its recommendations, the Commission says we will not achieve carbon neutrality by 2050 without purchasing overseas offsets (which it justifies by saying they are a way of helping other countries to decarbonise). Offsets will come at a cost of billions of dollars which do not contribute to our own economy. And the carbon neutrality which will result does not include biogenic methane. There have clearly been trade-offs when it comes to maintaining our existing economy with its animal-based exports.

Do we accept this middling advice report – which *will* require investment, immense intergovernmental coordination and sustained collaboration with iwi and industry – to largely protect our economy and way of life? Or do we ask Aotearoa to dig deeper and make more radical changes? Have your say by 28 March: <https://haveyoursay.climatecommission.govt.nz/>