

Climate Change – New Zealand needs to do better

Peter Whitmore, Committee ESR.

Chris Baker's recent opinion piece on coal and climate change (NZ Herald, 12 June 2019) seems to miss the point that we are facing a potentially catastrophic climate crisis that urgently needs to be addressed. He may be acting as a spokesperson for the minerals sector, but it is really important that this group also understands what is happening, both so they can make appropriate decisions in their own businesses and also play a part in protecting our planet.

The special report of the IPCC (Intergovernmental Panel on Climate Change), released last October, stresses the critical need to limit the future destruction from climate change by holding global warming to a maximum of 1.5C. To achieve this, by 2030 total carbon emissions have to be reduced globally by 45 per cent below 2010 levels and coal-based emissions by around 67 per cent. Realistically, to meet these targets, countries like New Zealand, with the necessary skills and resources, need to do considerably better, perhaps phasing out most coal use by 2025.

Baker particularly zeroes in on the need for coal to maintain energy security, with the Huntly power station recently using around 300,000 tonnes a year, and concludes that this scenario will not change for years to come. The electricity producers like having this power station active because it often pushes power prices up and increases their profits. Meanwhile, they are sitting on many consented but un-developed wind farms, including one planned for the hills right behind Huntly, that alone would be able to supply up to half the power that Huntly can.

If we followed along the lines of the German model and gave electricity generated from renewable resources priority access to the electricity grid, regardless of price, Huntly would very quickly move to stand-by status. This would also require other changes to the way the electricity market operates so as to reduce the over-charging for electricity, which is currently a standard outcome.

Our Productivity Commission has stressed the need for a carbon charge that reflects the cost of the damage the emissions are causing, which the IPCC report concludes is above US\$100 (NZ\$150) per tonne of CO₂ emitted.

Ensuring a reliable supply of electricity when the sun is not shining or the wind is not blowing, is also achievable. For example, a 200 MW tidal-powered station was planned for the Kaipara Harbour, but in 2013 the project was put on hold because of uncertainties about the electricity market. A trial to generate electricity from tidal currents in Cook Strait was also abandoned, very likely for similar reasons. We need an electricity market system that operates so that these sorts of projects can come to fruition.

Coal is also commonly used for process heat in other situations, for example by the dairy industry, typically because our low carbon charge of \$25 a tonne of CO₂ makes it the cheapest option. Our Productivity Commission has stressed the need for a carbon charge that reflects the cost of the damage the emissions are causing, which the IPCC report concludes is above US\$100 (NZ\$150) per tonne of CO₂ emitted.

Raising our carbon charge rapidly to at least the \$150 level will provide a much stronger incentive to move away from fossil fuels to more sustainable options, but it is certainly not a final answer. The IPCC has projected that to stay on track to meet the 1.5C target, carbon prices will need to rise to much higher levels than this by 2030.

We also need to rapidly phase out the provision of free emissions units to trade exposed industries. This amounts to subsidising the cost of the damage their emissions are creating, which is totally counter-productive. A positive approach would be to charge them for their emissions, but to offer government-funded assistance towards their transition to renewable energy sources.

These changes will increase the prices for some goods and services. To make this workable much of the carbon charge revenue will need to be recycled back to the general population in some appropriate manner. For example, raising the carbon price to \$150 would increase petrol prices by around 30 cents a litre. With the revenue being recycled, people will still be able to afford this. But they may choose to adopt more eco-friendly options like moving closer to where they work, using public transport more often, or buying an electric-powered car.

To make all this happen, we need to seriously hope that Parliament adopts the Zero Carbon Bill, that the independent Climate Change Commission that is subsequently appointed recognises the extreme gravity of the issues we currently face and acts accordingly, and that the government supports their recommendations.