

A Bang For Every Buck

Reducing emissions is expensive. Monetary resources are scarce. Every dollar spent on climate change mitigation is a dollar that is not available to spend on such other priorities as housing, or healthcare, or eradicating child poverty.

In this environment, waste is simply unacceptable. Every scarce climate dollar must be used to retire the maximum possible volume of emissions. So, how do we ensure we get the maximum bang for the climate buck?

Global peaking asap

The Paris Agreement sets out (Article 2) to –

“hold the increase in the global average temperature to well below 2°C,”

by the declared aim of all the parties (Article 4) –

“to reach global peaking of greenhouse gas emissions as soon as possible.”

In ratifying these Articles our Parliament signed up to a global strategy and New Zealand, as a small cog in this global wheel, remains committed to that strategy. While it remains responsible for its own tactical moves, it should never adopt tactics that are incompatible with the strategy.

New Zealand’s proposed new Commission must keep its eye firmly fixed on the “global peaking” aim, and recognise that the geographical location of emissions is *not* a relevant factor.

To enable this, the Select Committee must remove the draft Bill’s proposed clause 5W:

“Emissions budgets must be met, as far as possible, through domestic emissions reductions and domestic removals.”

Yimby attitude

Clause 5W displays a self-centred and irrational impulse to say: “Yes, in my back yard” (YIMBY). The Explanatory Note contains no explanation for this territorial focus, merely stating baldly that:

The Bill aims to support New Zealand’s domestic transition to a low-emissions economy.

The Bill allows the Government to purchase reductions sourced from overseas to meet emissions budgets, but only as a last resort and not as a first choice.

The term “domestic transition to a low-emissions economy” is meaningless jargon and a distortion of the English language. It presumably refers to the reduction in energy-intensity and carbon-intensity which has taken place in the past decade and is likely to continue or even accelerate during the next few decades.

For New Zealanders, the most visible of all energy usages is probably the family car. In the past decade or so, the average carbon-intensity of all new cars has been reducing at a rate of [over 3% per year](#). If carbon economy merely continues at the same rate, the average new car will reach zero before 2050. Is that process already an “economic transition”?

The vehicle transition has been enabled by technology improvements adopted by overseas manufacturers and that will also be the likely source of future changes in all of our energy-using

sectors. This fact merely underscores the global, rather than domestic, nature of the “transition to low-emissions.”

If a billion dollars is budgeted for permanent afforestation in any period and the options are to reduce 8 MT of CO₂ by planting in Fiji or 4 MT by planting in New Zealand, how can we rationally or morally opt for the latter?

Our leaders must always remember that the aim is to accelerate *global* peaking.

Carbon leakage

Because the common aim is to reduce global emissions, it has long been recognised that nothing is to be gained from merely moving an industrial plant, or even a whole industrial sector from one location to another.

This already finds expression in the Climate Change Response Act in the allocations of NZUs made to Energy Intensive Trade Exposed industries (EITEs). “Global peaking” is not brought forward by forcing the commodity products currently supplied by NZ Aluminium Smelters, or Methanex or NZ Steel to be instead supplied from some other country.

Precisely the same argument applies to food commodities produced for world trade, such as meat, dairy products, horticulture or fish. Except in these cases there is the additional factor raised by the recital of the Paris Agreement (page 1) that:

“Recognizes the fundamental priority of safeguarding food security and ending hunger.”

The New Zealand government pursued “world leadership” in banning future oil and gas exploration within our EEZ. That decision was widely perceived to merely relocate future hydrocarbon production from an efficient location to less-efficient locations which (at considerable cost) would defer rather than bring forward “global peaking” of emissions.

The government justified its decision by reference to the “*domestic economic transition*” phrase criticized above. It is fair to say that this tortuous explanation cut little ice with opposition political parties and is unlikely to form part of any future multi-party consensus.

Outsourcing

During the 20-year period 1990-2010, the UK economy built upon its service sectors while allowing its goods-producing sectors to wane and largely disappear. Although there has been an increase in its consumption, the products which were formerly made domestically are now manufactured in China. The result has been a sharp reduction in UK emissions, which has consequently allowed its politicians to claim the title of “world leaders” in fighting climate change.

The outsourcing of whole industrial sectors from Europe to Asia has made no positive contribution whatever to the international community’s aim of bringing forward “global peaking of greenhouse gas emissions.” In reality, the impact on the global target would have been quite deleterious as the energy intensity of UK plants was far in advance of that of China.

This is a sad example of form being preferred over substance and should be an enduring lesson for New Zealand. Territoriality or nationalism has no place in the team effort to impede the projected increase in the global average temperature.

Immigration

Similarly, people's decisions regarding their country of residence should have no bearing on climate policy decisions that focus on *global* emissions. Similarly, a country that relies upon earnings from inbound tourism has an automatic disadvantage. This self-evident observation highlights the folly of fixing carbon targets or budgets based on a particular geographical area.

It is wrong in principle for immigration policy to be driven or influenced by climate policy, and only occurs if the focus is distracted from achieving an early "global peak". All New Zealand's targets and budgets should be calculated on a per-capita basis.

Bang for buck

There are endless ways to expend money and other resources in the cause of reducing global emissions, but some methods are clearly more cost-effective than others. Given limited resources, the paramount concern of New Zealand's political leaders should be to maximize the CO₂ reduction actually achieved for each dollar of cost¹ incurred.

This objective can only be met if both the costs and results of competing methods are accurately measured. This kind of national cost-benefit analysis is well understood and should be regularly applied and updated by the Climate Commission proposed in the Bill. The Commission will quickly establish where comparative advantage lies and lean against any sub-optimal methods being included in emission reduction plans prepared under Clause 5ZD to 5ZF of the Bill.

Investments that produce inadequate returns should be eschewed in any endeavour. The opportunity costs are particularly high in climate change policy, where the available resources are effectively rationed by the limits of the community's appetite for economic pain (ambition). Waste and inefficiency can not and should not be tolerated.

Yardsticks

At any time, the market price of an NZU under the ETS provides one benchmark of the actual cost of suppressing one tonne of CO₂. But that market is distorted by expectations of inventory manipulation in consequence of policy changes and this artificiality will be further heightened by future emissions reduction plans.

Another benchmark is provided by private sector offset schemes such as the FlyNeutral programme operated by Air New Zealand, which retails tonnages that are supervised and plausibly certified by Climate Care. Businesses and the public have confidence in such schemes because they accept that the airline has incentives to maximise offsets at minimum cost and to select a reliable provider. Climate Care's current wholesale cost is a readily available yardstick to compare the relative efficiency of any other proposal.

The new Commission should be requested to identify and publish an achievable yardstick dollar cost per tonne of CO₂, whether domestic or global. This will offer considerable assistance to thousands of public and private sector enterprises which are seeking to reduce their carbon footprints. It is in nobody's interest for a business to invest an amount well above the going rate when a much less resource-intensive solution is available.

¹ Where "cost" includes either economic loss or accounting spend

Conclusion

There should be an all-party understanding, enshrined in the Bill, that all national climate change mitigation activity should abide by a single guiding principle – achieving or exceeding our international obligations at the least possible cost.