

24 September 2020

Dr Rod Carr
Chair
Climate Change Commission
by email: rod.carr@climatecommission.govt.nz

Dear Dr Carr

I trust that you have fully settled into your role as Chair of the Climate Change Commission. It is an important role with significant responsibility for guiding New Zealand towards a low emissions future. We strongly support your organisation's goal as presented in the Statement of Intent, which is "To deliver independent, evidence-based advice to guide climate change action for Aotearoa." We are keen to assist in this regard wherever possible.

PEPANZ is the peak industry body which represents energy producers from the upstream petroleum sector, although our interests extend right across the New Zealand energy and industrial scene. We promote sound analytical frameworks and evidence to inform thinking about energy issues.

With this in mind, I would like to pick up on a few comments you made to the Infrastructure New Zealand webinar on 30 June 2020.

Emissions Pricing

I would like to respond to the following comment you made about the role of regulation:

"Price alone cannot drive the extent and rate of change that we need.... Price through the ETS will play a part but will also have some unintended consequences. Black letter regulation must also play its part, but regulations can sometimes be clumsy and sometimes alienate those who are regulated."

In terms of resource allocation and mechanisms, our fundamental view is that policies drive emission reductions at lowest cost marginal abatement, especially given resource constraints.

We consider that market-based instruments are preferable to direct regulation, as prices are best able to distil and convey dispersed, complex and dynamic information so as to inform the behaviour of actors throughout the economy to promote the efficient allocation of resources. When it comes to complex problems, it is usually simple solutions that do best.

After regulating greenhouse gas emissions through an emissions trading scheme to internalise costs, we believe further direct interventions should only be made where there remain residual genuine and material market failures, such as the provision of public goods and management of materially significant externalities. The evidential threshold here should be high. Strong problem definition is needed to ensure that any interventions target an actual and underlying problem, rather than targeting either a merely perceived problem, an unpopular activity, or something only tangential to the real problem¹.



“Black letter regulation”, which you suggest is necessary, has the highest risk of unintended consequences compared to market-based instruments (although the latter certainly has issues to manage such as devising the optimal emissions cap and administrative practice). Before regulations are made, it must be clearly established through high-quality economic analysis that benefits outweigh costs. When considering costs, the risk of government failure should also be factored in (whereby perverse outcomes arising from regulations make the problem worse).

Climate change is an economy-wide issue and therefore highly complex. Interventions throughout the various sectors and aspects of the economy begin to interact in ways that central planners cannot realistically envisage. This can lead to an intertwined set of interventions that produce unintended outcomes and which may be too difficult to reform or repeal should they subsequently prove to be misguided.

We therefore urge significant caution when considering direct regulations and ask that analysis of costs, benefits and risks of government failure be made relative to the counterfactual of relying on the ETS.

The oil market

Oil market supply, demand and price dynamics are nuanced, context-dependent and complex, meaning that assertions should be carefully considered and presented. Little in this domain is axiomatic or able to be accurately summarised in soundbites.

In this regard I would also like to address comments you made about the incentives on oil producers, where you said:

“At the moment our pathway through renewables, particularly for the replacement of petrol and diesel in ground transportation is held hostage to the international price of oil, in that there is always going to an end game in oil where a barrel left in the ground is worthless, and so the incentive in the end game is to pump as fast as you can even if it is at a very low realised price. New Zealand needs to make a strategic decision not to get caught in that vortex. It will destroy our pathways to renewables under normal market incentives and the case needs to be made that we should stabilise at a high price the retail price of petrol.”

Your concern appears to be that oil producers, especially in the theorised “oil end game”(i.e. where structural demand starts to fall), will be incentivised (due to fear of stranded assets) to maximise production to such an extent that the oil price collapses thereby making alternatives less viable (in terms of price competitiveness).

Given the economics of oil production and the need for continuous capital investment, this concern about falling prices is not credible. You are correct to suggest that maximising production is the normal state of affairs for most producers in the oil industry. However, it is critical to understand that this only applies to “developed reserves” (i.e. those that don’t require additional investment to access).ⁱⁱ Globally, production from developed oil fields decline at around 7% per year according to an industry rule of thumb, i.e. without investment this is the rate at which oil production will reduce.

In contrast to your hypothesis, if producers are concerned about structurally lower demand and/or stranded assets, this will likely result in a decline of existing production – this is due to inadequate capital being invested to prevent natural production decline. Such a situation would result in an inability for supply to keep pace with (even declining) demand resulting in structurally higher prices.

To maintain oil production at a constant level, continued investment is required to bring to market “undeveloped resources”. These undeveloped resources are not developed at maximum rates, but rather

when individual companies perceive that the future expectations of prices are sufficient to justify investment in the resources over which they have rights.

The impact of OPEC

It is also important to consider the nature of the oil market, which is far from perfectly competitive. Approximately 40% of production is controlled by the OPEC cartel, which has the ability to swing supply (through production and distribution) in a way that influences price. This means that nearly half of global production is not managed under a simple "pump as fast as you can" approach, and you can clearly observe the opposite occur, where production is pulled back to increase price.

Government levies already maintain a minimum effective petrol price

In terms of the effectiveness of levies, over half the cost of petrol at the pump is already comprised of various government taxes, levies and emission pricing so prices are already prevented from being especially low. Even then, consideration of the price elasticity of demand is important as it may be that because of a lack of substitutes quantity demanded is not greatly affected by new taxes except at the margin.

Conclusion

As offered in my letter of December 2019, I would welcome the opportunity to discuss such matters with you and to contribute our knowledge of the sector where helpful. I was slightly surprised not to get a response to my previous letter, especially given the role our sector contributes both to emissions and a transitional pathway to reducing them.

In relation to the oil market we could connect you or your officials with experts from our sector to discuss field economics and the nature of the oil market. As previously offered, we would also be very happy to arrange for you or your Commissioners to visit oil and gas facilities in Taranaki if that would be of interest.

Kind regards

A handwritten signature in blue ink, appearing to read 'John Carnegie', with a stylized, cursive script.

John Carnegie
Chief Executive Officer

ⁱ An example of an intervention targeting something tangential to the real problem is supply-side interventions such as bans on upstream petroleum exploration or production. This is because the production of hydrocarbons is not in itself an actual problem – rather the problem is net emissions resulting from the combustion and release of hydrocarbons. Note here that not all uses of petroleum involve emissions, and technologies such as carbon capture and storage can manage emissions.

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- ii Even still, because firms seek an economic return on capital it is overly simplistic to state that companies will in all circumstances produce every single barrel they possibly can. It is also possible that firms may consider the future value of their assets and accordingly determine the best time to produce and sell, meaning that delayed or slower production could be preferred by producers.