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GROWING PROSPERITY AND POTENTIAL

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Dear Steven

Low-Emissions Economy

BusinessNZ is pleased to have the opportunity to provide a submission to the Productivity Commission (the 'Commission') on its draft report entitled 'Low-emissions economy', dated April 2018.[1] Thank you for accepting this as a late submission.

Introduction

BusinessNZ welcomes the Commission's draft paper outlining its thinking about how New Zealand can maximise the opportunities and minimise the costs and risks of transitioning to a lower net-emissions economy. The Commission has approached this not insignificant issue with thoroughness and rigour. It is clear that it has started to work through a wide range of issues in a methodical, deliberate way, and should be congratulated for its thoughtful assessment of the issues it has addressed in a relatively short period of time. But much still needs to be done.

The draft report understandably canvasses a wide, diverse and complex set of issues and potential responses. Each finding, recommendation and question posed could be the subject of a lengthy submission in its own right, often requiring detailed technical information. Given this, we have not sought to respond to the specific questions but rather have provided views on where the Commission can usefully focus further effort as it now concentrates on the development of its final report later this year.

[1] Background information on BusinessNZ is attached in Appendix One.

Before getting into the specifics of our comments, it is worthwhile reinforcing our perspective as noted in our previous submission that:

> "we do not find it particularly helpful to characterise a transition in black or white terms of 'old economy' or 'new economy', or other labels such as 'green/clean jobs' or brown/dirty jobs'. Such labels are not only unhelpful but misleading, unless the Commission envisages a world without, for example, metallurgy, chemicals or meat and dairy food processing, or a world where these activities continue to exist, but just not in New Zealand."[2]

The Commission (page 1) continues to maintain that decarbonisation:

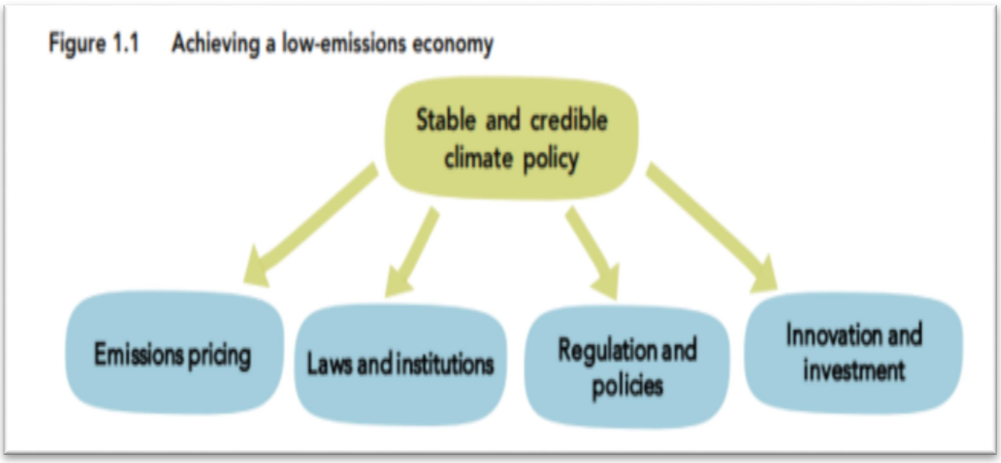
> "…. requires old technologies and even old industries to be replaced by new."

We are surprised that the Commission makes such a definitive statement. The Commission itself notes on numerous occasions, for example:

> "There is obvious uncertainty about what lies ahead and how a low-emissions economy will evolve and what this means for New Zealand."[3]

One of its own model runs retains energy intensive industries such as aluminium and steel manufacturing (for more on the Commission's modelling, see below). This merely highlights the extent to which uncertainty is a palpable feature of its analysis. The key learning from the scenarios work of the BusinessNZ Energy Council is that the future is unknowable. If the point that the Commission is making is that the economy will evolve in response to the challenge of climate change, then this is undoubtedly true. But to a greater or lesser extent, economies are in a constant state of transition (the state of 'creative destruction'). How it will evolve and whether it will see the end of certain industries and the rise of others, is an open question, and one driven by the complex array of market signals arising from our comparative advantages as well as by continuing changes in technology.

Having said that, we agree with the characterisation of how to achieve a low-emissions economy, as set out below:



Source: Productivity Commission, Figure 1.1, page 18.

[2] BusinessNZ submission to the Productivity Commission entitled 'Low-Emissions Economy', dated 2 October, 2017, page 2.

[3] Productivity Commission report entitled 'Low-emissions Economy, Draft Report', pages 11-12.

We agree that a systemic, cross-economy approach is needed to the task of transitioning to a low-emissions economy. However, we note that the Commission's Terms of Reference emphasised the need to transition "while at the same time continuing to grow incomes and wellbeing."[4] We look forward to the Commission coming back to this in the form of a demonstration that it believes its recommendations provide a net public benefit in its final report as this is an important missing element. This is particularly relevant given the Inquiry Terms of Reference asked the Commission:

> " …..to consider how patterns of economy activity may need to change, including over what timeframe *and at what cost* ….."[5]
>
> (emphasis added)

Other Comments

1. The emissions trading scheme (the 'ETS'): in our view the draft report suffers from the Commission coming late to an issue which has been the subject of deep and ongoing analysis for over a decade. In particular:

    a. it seems to have bought into the normative assessment of the ETS as having been ineffective, and/or providing for an absence of policy predictability. Given the complex arrangements (both global and domestic) within which the ETS is nested, it is hard to retain credibility with such an assessment when:

        - just as recently as 12 April 2018, the Minister of Climate Change announced that gross emissions in 2016 were 78.7 million tonnes of carbon dioxide – 2.4 percent - lower than 2015. This being the very trend that the Commission is looking to encourage;

        - New Zealand's emission intensity has fallen dramatically (with 37% fewer emissions per unit of goods and services produced since 1991) as shown by the Commission in Figure 2.11;

        - we will comfortably meet our 2020 emission reduction target; and

        - the ETS in its current form has remained substantially unchanged since its last substantive reform in 2010 (as such we find it hard to agree with the presumption that it has resulted in a high degree of regulatory uncertainty).

    We understand, however, that those who have simply wished for a higher carbon price, and more aggressive domestic action regardless of what our trade competitors are doing would seek to ignore these trends as inconvenient. But we caution the Commission to avoid judging the ETS by these standards and strongly disagree with Finding F4.11. Instead the Commission should acknowledge that New Zealand has, without

[4] *Ibid*, Inquiry Terms of Reference, page i.

[5] *Ibid*, page ii.

substantive economic dislocation, managed to be one of the few economies in the world that has successfully implemented an economy-wide ETS while achieving modest change commensurate with action by other jurisdictions. Should greater action be warranted, it is rather stating the obvious that the ETS as currently configured will need to be changed to meet that future challenge and that the carbon price will need to rise;

b. we consider that the Motu proposal for an ETS with a managed price floor and cap to be flawed in logic and highly problematic in implementation. Developed by a group absent those representing the wider business community, we consider that such a proposal:

    - is inconsistent with a more market-based scheme that relies on the intersection of demand and supply to set prices rather than bureaucrats. It is our strong preference (for reasons we explained in detail in our last submission) for a less, not more, managed ETS;

    - will simply entrench, rather than remove participants from playing the political market in an effort to influence price levels, and therefore make the market less, not more, predictable;

    - while possibly workable in theory, will be practically unworkable. We find it curious that the Commission would head New Zealand down this path when no other national ETS has implemented a price floor. We note that Australia tried but failed to implement a price floor (being saved from the embarrassment of having to reverse the policy by the EU when looking to link the Carbon Pollution Reduction Scheme [CPRS] with the EUETS);[6]

    - make international linking more, not less problematic (a corollary to the preceding point). This is an important lesson from the Australian flirtation with price floors;

    - is simply unnecessary. Given the considerable rework of the ETS underway with caps and auctions, the scheme's operators will have sufficient operational tools to ensure that perverse price outcomes do not eventuate. Given the current price, the need to meet ever-increasingly stringent reduction targets and the price path's forecast by the Commission's own modelling, we find a focus on price floors to be interesting but ultimately uninformative; and

    - we also note that the International Emissions Trading Association (IETA) have recently come out against the use of price floors, saying that such measures would merely cause emissions to 'leak' to countries without a floor by damping the price signal in the EU ETS, resulting in no environmental gain. In addition, IETA argue

[6] We also note that the UK price floor superimposed on the EUETS applies to their power sector only and does not impact on manufacturers of tradable goods.

that it would be premature to impose a price floor before price-driving market reforms start kicking in from next year (the very issue we raise in the preceding point).[7]

As noted in our previous submission, it is important for any changes made to the ETS to ensure that it is fit-for-purpose in contributing to New Zealand meeting its future emission reduction targets to head us toward, and not away from the goal of an open, internationally linked scheme where emitters face the full cost of the externality. It is also useful to remind ourselves that one of the primary objectives behind implementing the price cap was not to protect emitters, but to protect the economy from a price shock. In a world where New Zealand acts while others do not, this risk predominates. Ultimately it is our preference for neither a price floor nor a cap but instead a safety valve in the form of a trigger that would signal the release of additional units (either by auction or fixed price option as we currently have). A weighted average of prices in other schemes relative to the New Zealand domestic price could serve as such a trigger- this method would also have the advantage of serving to calibrate our action to that being taken by others;[8]

c. the Commission needs to be careful when making generalisations that raising the price of emissions will deliver the desired results. While mindful in some areas (such as the elasticities of fuel prices) it seems less so in others. For example, in Finding F15.1, it finds that:

> "Increasing the price of emissions in the New Zealand Emissions Trading Scheme is the most effective way to incentivise a transition toward the construction of buildings with lower embodied emissions."[9]

This logic is flawed as the increased price of emissions through the ETS would only apply to domestically produced materials (steel, cement, etc) and not imported building materials. With import substitution setting the price of goods their price would not rise. Instead domestic manufacturers would face reduced profitability with no environmental gain;

d. we agree with Finding F4.6 on the use of international units. The point often made by those who suggest that New Zealand should not have access to international units because to do so would be high cost (Macey *et al*), seem not to consider that the counterfactual (of domestic only

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7 Paper by IETA entitled 'National carbon floor prices and carbon taxation in EU ETS sectors', dated June 2018 can be found via the following link:

https://www.ieta.org/resources/EU/Position%20papers%202018%20-%20Governance%20Regulation%20and%20CFP_04.2018/IETA_CarbonFloorPrices_Final.pdf

8 Note that we take little or no comfort from modelled ranges of estimates of what will be required in other developed countries to meet the Paris Agreement, or any comparison to New Zealand's modelled trajectories. We do not consider that such trajectories give New Zealand policy makers any comfort in helping to shape domestic action given their speculative, uncertain nature. There is a need to distinguish between theoretical carbon prices and those that can be implemented through an ETS without the social and /or economic harm begin so great so as to undermine the target, or becoming untenable in the medium term. We also note that talk of the ability for emitters to arbitrage the price cap is simply a theoretical risk given that arbitrage requires international linking and *all* units to be higher cost than our domestic units.

9 Productivity Commission report, *op cit*, page 388.

action) is likely to be even higher cost.[10] This is borne out in the recently released NZIER report;

e. we agree with the Commission that there is a case for withdrawing free allocations to trade-exposed sectors as the stringency of emissions policies overseas increases (Finding F4.3). But it is important that this is not done in an ad-hoc or unexpected basis, but in an open and transparent way, in consultation with those affected so that the extent of the action being taken by others can be scrutinised and that the implications of such action be understood. However, we don't support the element of that finding which states that "free allocation costs the Government revenue" as this is akin to saying (using an example used by the Commission, Box 4.2) that the Government should not have grand-parented fishing quota on the introduction of the ITQ system. All decisions inevitably have costs but the allocation of free units was in recognition of the need to protect existing emitters' property rights and therefore New Zealand as a place to invest. It is also important to remind the Commission that there is no link – *at all* – between the allocation of free units and the absence of the incentive to abate (as it is units with a market price that create the incentive);

   Others, such as ExportNZ and NZ Steel, have previously suggested the adoption by New Zealand of the methodology used by Australia in its CPRS. Under that scheme, it was proposed if the Australian Productivity Commission found that less than 70% of international sectoral competitors faced comparable carbon costs to those faced by their Australian energy-intensive trade-exposed counterparts, it could recommend that the annual 1.3% reduction in permit allocation cease, so that the permit allocation rate would be frozen at a floor of 90% of eligible emissions for highly emissions-intensive industries, and 60 per cent for moderately emissions-intensive industries. We believe that this approach has substantial merit and should be considered for adoption here in New Zealand (New Zealand did, after all, adopt much of the other elements of the ill-fated CPRS).

   With respect to the risk of carbon leakage, we refer the Commission to the recently released Sense Partners report, which states:

   > "The analysis suggests New Zealand firms have faced effective costs of emissions that are not very high by international standards but have been high compared with those of our major trading partners in the Asia Pacific region."

   and

   > "New Zealand emission prices are at the upper end of the distribution of the prices, and this result is unsurprising. It repeats a result that is consistently found in international comparisons and analyses of

[10] Unless, of course, they are trading-off access to international markets for a lower target that can be achieved without access to such units.

mitigation costs. Mitigation in New Zealand is comparatively expensive."[11]

f. we see no merit in the continuation of a domestic only ETS if there is no prospect of international trading. The main reason New Zealand has a trading scheme was on the presumption that:

   - other jurisdictions would also have trading schemes; and
   - there would be cross jurisdiction trading in order to discover the least cost of abatement across economies.

   To knowingly continue to have a domestic-only trading scheme, with no prospect of international trading is simply a waste of resources and effort;

2. The Commission's modelling. We have concerns about the efficacy of the modelling done for the Commission, not least of which relates to their usefulness for policy and decision-makers, for example:

   a. the Commission seems to be uncertain as to the nature of its modelling. It claims that its modelling is not prediction:

      "Yet modelling has well-known limitations and is not prediction"[12]

      preferring instead to call what it has done scenarios. However, its modelling *is* prediction as it has been asked to solve for a set of given end-points. Scenarios on the other hand are explorative (what *might* be), not normative (what *ought* to be). Sensitivity analysis of a base prediction does not make it a scenario. The Commission notes that its modelling:

      "sets 2050 emissions targets and models the changes that will occur throughout the economy to meet these targets."[13]

      In this case it seems somewhat of an understatement (if not slightly disingenuous) to say "The first notable result is that all pathways are feasible." There should be no surprise at all that as per the heading of Figure 3.5, all pathways deliver large reductions in net emissions, as this is exactly what the model was asked to do by the use of assumptions to achieve just that. The results are purely assumption-driven.

   b. the Commission rightfully makes some significant play on the extent to which uncertainty features in what it has been tasked, for example:

      "There is obvious uncertainty about what lies ahead and how a low-emissions economy will evolve and what this means for New Zealand."

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[11] Report prepared by Sense Partners entitled 'Countervailing Forces Climate Targets and Implications For Competitiveness, Leakage and Innovation', pages 1 and 50 respectively.

[12] Productivity Commission report, *op cit*, page 43.

[13] *Ibid*, page 56.

and

> "In reality, technology and prices are changing rapidly and will certainly continue to do so over the next thirty years. As a result, the analysis in this section is only a starting point for thinking about how to achieve very-low-emissions electricity generation."

and

> "Action to lower emissions also needs to operate within several complex and interacting systems. These include the domestic and global economies, the physical environment, and social systems shaped by beliefs, social norms and values. Adding to this complexity is uncertainty about future technological change. The choice of options to lower emissions will need to take account of this complexity and uncertainty, using data on emerging developments and analysis to feed back into the ongoing policy design and implementation."[14]

to quote three such references. We are mindful that the Commission was asked to develop 'pathways' (a euphemism for predictions), but having made the predictions, we ask what policy makers are expected to do with these modelled results, especially in light of the palpable levels of prevailing uncertainty. Are they expected to weight the various predictions and begin to bake their assumptions into policy decisions? It would be helpful if the Commission was more explicit about what it would like government to do with the modelling results. This concern with its modelling is heightened by the release by the Ministry for the Environment of additional modelling by NZIER which shows, for example, very different carbon price trajectories[15]. In the presence of such uncertainty, combined with the absence of economic impact modelling, the Commission's predictions lose their efficacy.

In the parlance of the BusinessNZ Energy Council, what the Commission has provided is essentially only 'one side of the funnel' (see picture below) – one view of how the future might play out (albeit with sensitivities). Developing 'both sides of the funnel', as done by the BusinessNZ Energy Council explorative scenarios, allows policy makers and investors the ability to test the resilience of their plans, determine what the critical differences between the narratives are and why, the choices and trade-offs, and therefore the policy and investment levers available rather than false trade-offs between variants of the same prediction;

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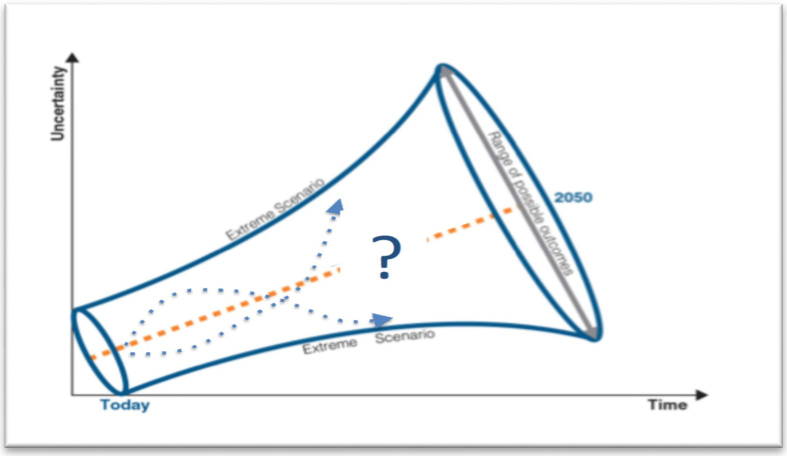
[14] *Ibid*, pages 12, 326 and 18 respectively.

[15] Report prepared by NZIER entitled 'Economic impact analysis of 2050 emissions targets A dynamic Computable General Equilibrium analysis NZIER final report to Ministry for the Environment, dated 18 June 2018, can be found via the following link:

http://www.mfe.govt.nz/sites/default/files/media/Climate%20Change/NZIER%20report%20-%20Economic%20impact%20analysis%20of%202050%20emissions%20targets%20-%20FINAL.pdf



Source: World Energy Council and BusinessNZ Energy Council "New Zealand Energy Scenarios, Navigating energy futures to 2050, Figure 8, Funnel of Uncertainty

c. given its Terms of Reference, the Commission has assumed that the extent of action taken domestically is commensurate with that being taken by other jurisdictions. This somewhat simplifying assumption conveniently deals with any issues around investment, or carbon leakage and the extent of inaction by the rest of the world. Indeed, NZIER state:

> "Clearly, assuming the rest of world matches New Zealand's policy actions towards a lower-emissions economy *is heroic*."[16]
>
> (emphasis added)

Consistent with the view expressed in (b) above, what is required is the 'other side of the funnel' – a view of a different world where New Zealand takes action but others do not, or if they do, they take less stringent action.

Without a more balanced view of how the future might play out differently, it will be difficult for the Commission to adequately understand, or balance the risks, or recommend policy that will be resilient to other world outcomes coming to pass. Leaving the modelling as is risks becoming the Commission's 'Think Big' moment. 'Think Big', for example, was a case where policy-makers pursued an objective to avoid becoming almost wholly dependent on liquid fuel imports. In doing so the economic future of the country was 'bet' on the over-riding importance of energy security;

d. the treatment of some of New Zealand's major industrial and regional employers. For example, the modelling companion report makes the contention that New Zealand's steel production is not carbon efficient compared to the rest of the world. And it variously claims that carbon prices relative to the rest of the world will see its demise, despite elsewhere claiming that global carbon prices will be very similar in a Paris

[16] *Ibid*, page 40.

world.[17] Regardless of whether the modelling assumptions are correct, there is a need to consider the full supply chain and carbon impact of consumption – and not just the relative production of any one individual participant. We also think that exiting large industry in most of the predictions may lead people to believe that terminating these organisations is a strategy to meet the Paris target. As the Commission's predictions are a sum of a set of made-up assumptions, it is our strong preference that the Commission instead show that a Paris future can include industry, and it shouldn't have to rely on the "and then magic happens" assumptions, such as of a methane vaccine, or our vital industrial base closing;[18]

e. despite the extent to which the Commission recognises the presence of substantial levels of uncertainty, it still manages to say that:

> Achieving a low-emissions economy for New Zealand requires *early action* and a long-term enduring response.[19]
>
> (emphasis added)

Indeed:

> "Action is needed in the face of deep uncertainty and in the context of a global public good (with its incentives to free-ride)."

…..and further:

> "The results indicate that greater technological change and *early action* to raise emissions prices may help to constrain long-term costs. Given technological change is uncertain, this suggests that *early action* provides future options, which would allow New Zealand to benefit from low costs should technological breakthroughs occur. And New Zealand can continue to meet its commitments with lower risk of high emissions prices in the future, should technological progress be slower than hoped."[20]
>
> (emphasis added)

We wonder how, in practical terms, this desire to act early sits with the following statement:

> (the) "deep uncertainty, and the need to accommodate dynamic mitigation pathways where policy choices are deferred or left open until

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[17] For example, the modelling companion report prepared by Vivid Economics, Concept and Motu assumes that, in a Paris world, global carbon prices trade in a 'very tight band'. This suggests that, in the Commission's predictions, the model sees Iron, Steel, and Aluminium become less competitive through time *irrespective* of the carbon price. It is not clear how the models would make this assessment.

[18] Yet we note that in finding F13.6 the Commission recognises that barring technological breakthroughs that the opportunities to significantly reduce emissions from iron, steel and aluminium production remain limited.

[19] Productivity Commission report, *op cit*, page 160.

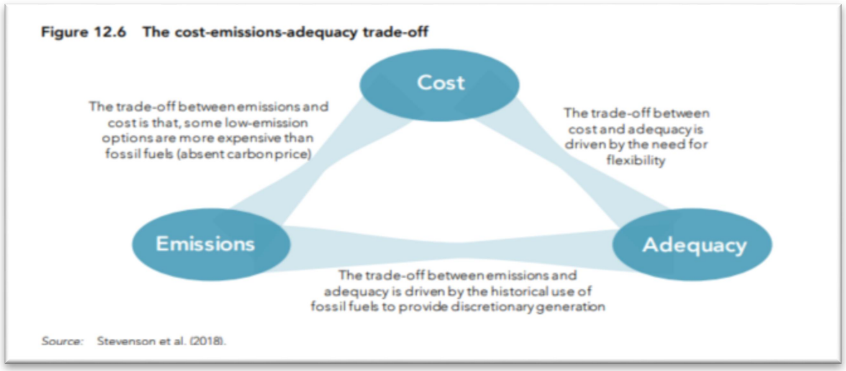
[20] *Ibid*, pages 160 and 46 respectively.

better information is available or policy choices made today are constructed in a way that does not preclude future policy options. [21]

This is especially relevant given that carbon prices are exogenously generated up to 2030 and then endogenously set thereafter. We wonder about the extent to which the post 2030 carbon prices (which apparently show that early action will lead to lower later carbon prices) are simply a function of the particular set of assumptions used. Such a claim (of early action) is simply not empirically supportable given the uncertainty surrounding the uptake of new low carbon technology. For example, it would also be possible to model a prediction that has a low initial carbon price, followed by the rapid diffusion of low cost, low emissions technology resulting in an even lower carbon price. The cost of acting slowly and deliberately, rather than precipitately may well be justified as it would avoid baking in decisions now that we might regret later (for example, the extent to which increased electrification to support electric vehicles is stranded by the subsequent uptake of alternatively fuelled [methanol and/or hydrogen] vehicles); [22] and

f. finally we wonder about the impact of the Government's announcement on April 12 to cease offering offshore petroleum exploration permits will pose for maintaining New Zealand's medium to long term gas security of supply. Putting aside its obvious flaws as being ultimately ineffective as an emissions-reduction tool, and inefficient compared to market-based alternatives, we suggest that this should be factored into the Commission's modelling in light of its recognition that gas-fired peakers will play an important role in New Zealand's energy future;

3. In the chapter on electricity, the Commission appropriately recognises the series of complex trade-offs between resource adequacy, cost and emissions. This is essentially a restatement of the 'energy trilemma' framing of security of supply, environmental sustainability and energy equity (being access and affordability) and is used by the BusinessNZ Energy Council to help policy makers think about achieving balanced energy policy. The Commission shows this trilemma diagrammatically below:



Source: Productivity Commission, Figure 12.6, page 332.

[21] *Ibid*, page 17.

[22] Where stranding means a future where asset owners can't recover their investment costs or earn a reasonable return on their assets, or where consumers are required to continue to pay for regulated assets that are no longer necessary.

But having recognised this trilemma and its importance – especially in the electricity sector - the Commission recommends (Recommendation R5.1) that the Government should phase out all subsidies that support the ongoing production and use of fossil fuels. We agree that such policies can act to disincentivise low emissions innovation (to the extent that this innovation is going to occur in New Zealand), and should eventually be phased out but the purpose of such policies is to help maintain New Zealand's energy security by reducing its international dependence. In any case, their continued presence in other jurisdictions is more likely to dampen the global incentive to innovate and therefore reduce the availability to New Zealand of low emissions technology. We strongly support climate change action, but ultimately the cost and efficiency of new energy solutions and therefore the pace of the transition will be dictated by global, not domestic action. Acting sooner will add costs. We ask that the Commission give careful consideration to Recommendation R5.1 in light of the implications of a primary focus on environmental sustainability on energy security;

4. The roles and functions of a Climate Commission. As expressed in our previous submission we have reservations about the need for a Climate Commission (our preference being on the delivery of high quality, robust decisions over new institutions of state), but we recognise such a body now seems inevitable and so our focus shifts to the Climate Commission's roles and functions.

   The Commission poses a clear dichotomy – should it be a decision-maker or advisor? We do not believe that the choice is as stark and therefore do not agree with Recommendation R7.8. The nub of the question is – as outlined by the Commission in Finding F7.10 – the extent to which the Climate Commission should be at arms-length from government. The key risk with a fully advisory body is that market participants continue to 'play' the political market, rather than deal – as they should – with the Climate Commission directly. The continued ability to lobby Ministers will undermine the effectiveness of a Climate Commission and serve to act against the principles that the Commission holds in such regard – bipartisanship and durability. Our experience of the shift from the Electricity Commission to the Electricity Authority, and the difference in participant behaviour that resulted, informs our view. While we recognise a difference in magnitude, it can hardly be argued that electricity and its regulation does not have a 'profound and widespread impacts, and require the weighing of a range of economic, environmental and social' considerations. Decisions about electricity are also highly political, but yet politicians had the foresight to largely (but not completely) remove themselves from the equation. And the qualification is important. We do not consider the 'advisory' or 'decision-maker' question to be a binary one but one that can, and should be finessed around the specifics of what functions the Climate Commission is finally allocated. And even for those functions is it allocated decision-rights over, such rights can still be moderated. For example, there can be an onus of decision-making to fall on the Climate Commission unless it falls to meet certain (pre-specified) conditions.

   What is essential, in our view, is that the government is required to respond to the Climate Commission so that we finally move beyond mere targets that have no more force than wishful thinking. The main argument for having the Climate Commission focus on its 5 yearly steps and the government having a responding role is simply that the responses to the challenge are likely to be required across

so many policy areas that the relevant expertise could hardly be assembled under one roof;

5. The role of carbon capture and storage. We strongly agree with the Commission's Recommendations R13.3 and R13.4 on carbon capture and storage. Given the upstream point of obligation for industrial emitters (i.e. at the point of fuel combustion), there is currently no incentive to capture flue gases and this omission must be rectified;

6. The transport sector. Relative to other areas, significant scope exists for reducing transport emissions but we agree with the Commission when it says that substantial uncertainty surrounds the development and uptake of transport technologies. We make the following observations on the transport sector:

    a. as recognised by the Commission, price inelasticity make consumers largely unresponsive to price changes. Numerous studies (many referred to by the Commission in its draft report) support this contention. But we do not share the Commission's enthusiasm that higher carbon prices *might* drive more meaningful changes. For example, the Commission quotes Concept's finding on aviation emissions.[23] The BEC found that even at a slightly higher carbon price of $115p/t that aviation emissions *increased* out to 2050. Our view is that introducing a change that will according to Infometrics achieve reductions indirectly by reducing household disposal income and firm output, will need extremely careful scrutiny on implementation;[24]

    b. we agree with Finding F11.1 that measures other than an emissions price will be required should substantive emission reductions be sought. Given the magnitude of the issues, it is inevitable that a range of measures will be required. We also agree with the principles that regulatory effort should be technology and mode neutral. With this in mind, we note:

        - that transport funding should be mode neutral (Finding F11.17), however, we also note that the current source of the National Land Transport Fund (NLTF) is hypothecated from road user charges. Should the NLTF be opened up more widely (Recommendation R11.6), its source of funding should be similarly to ensure that road users are not subsidising other transport modes;

        - the Commission says it does not favour price subsidies that target EVs specifically. We agree with this. However, we note that the Commission recommends that the Government financially support the development of charging infrastructure projects to support the uptake of EVs (Recommendation R11.3), rather than low-emission vehicles, even though in Finding 11.12 the Commission recognises the advantages of hydrogen fuel-cell vehicles and that its biggest challenge is the infrastructure investment required. Greater

[23] Productivity Commission report, *op cit*, page 287, ref Concept (2017a).

[24] *Ibid*. page 287, ref Infometrics (2017)

consideration should be given to the support of other low emission vehicle infrastructure such as hydrogen, especially in light of its likely use in the heavy vehicle fleet;

- that of the many proposals contained in the draft report, the transport sector is likely to be the one area that has the largest most directly regressive impact on domestic consumers. The Commission notes in Chapter 9 that "the mitigation policies recommended in this report *may* raise energy, transport and food prices." (emphasis added) Further – in what can only be an understatement – the Commission notes that:

  > " ….shifting from fossil-fuel vehicles to low-emission vehicles *may* be challenging for lower-income households."[25]
  >
  > (emphasis added)

  Evidence from other jurisdictions is clearer on this point. In light of this likely impact, sequencing (for more on this point, see below) is particularly critical with respect to transport. While we agree that commensurate with the magnitude of the challenges posed by transport sector emissions that multiple interventions will be likely required, we caution against the use of multiple and cumulative interventions without first implementing and assessing the impact of changes to the emissions trading scheme (especially in light of Infometrics comments, above) before moving to other more aggressive interventions. For these reasons, combined with the significant uncertainty surrounding the nature and pace of the technologies, we do not support the introduction of a feebate (Recommendation R11.2) at this point, especially in light of the Commission's own warning (Finding F11.10) regarding the risk of perverse outcomes, nor an end-date for the importation of fossil-fuelled vehicles. If the problem being addressed is the risk that New Zealand will become a dumping ground for old, high emissions vehicles then an age limit on entry would likely to be a better low cost response. While there are pros and cons of any number of interventions in the transport space, we think the shifts required are likely to have an adverse impact on those less likely to be able to afford the policy shift. We think that the idea of an import age limit would be preferable – at least as a first option - and warrants closer investigation by the Commission;

7. Short-lived and long-lived gases. We welcome the Commission's thoughtful assessment of the role of short and long lived gases. We agree with the Commission where it notes that to:

   > "meet the 2°C target of the Agreement with 50–66 per cent probability at least cost, and taking into account the current commitments made by countries in the period to 2030, modelling suggests that carbon dioxide emissions will need

[25] *Ibid*, page 231.

to reach net zero by 2060–80s, and that total GHG emissions would have to reach net zero between 2080 and 2100.'[26]

We also agree that the scientific justification for an approach based on sectors is not convincing, and would be concerned that doing so would skew effort and resources in distortionary ways;

8. The electricity sector. We agree with the recommendations outlined in Chapter 12 (Recommendations R12.1 – 12.4);

9. The importance of sequencing. Unlike the Chair's remarks to the last meeting of the BusinessNZ Energy Council, we believe that sequencing matters and one of the main lessons from the reforms undertaken in the 1980's was that there might have been a more optimal adjustment path. This issue therefore warrants consideration by the Commission as it advises on the transition to a low-emissions economy. This is not an argument in support of not making change, rather one of careful and deliberate consideration of their cumulative impact on both consumers and business. The Commission's report is, we noted at the outset, a comprehensive bringing together, within a useful framework. However, it is absent of any indication of either the sequencing of its recommended actions (that is, the order of implementation) or the timing of their implementation. There are two dimensions to this issue, being:

    a. we consider the provision of such advice to be an integral element of the overall package of advice to be provided especially in light of the Terms of Reference asking the Commission to consider patterns of economic activity that may need to change, *including over what timeframe*; and

    b. the relationship between the work of the Commission and that of the forthcoming Climate Commission. Given the information asymmetry it is difficult for us to offer specific advice on this point, but we ask that the Commission be mindful to the extent that is possible, of the work the Climate Commission will be tasked to do in order to avoid the risks of the two bodies heading in different directions or merely leading to duplicate effort; and

10. Climate mitigation and the digital economy. Finally, we note that other than in Chapter 11 on Transport, the draft report does not really explore the direct correlation between climate mitigation and the digital economy. There are many parts of society that are hard to move, or at least require disproportionate effort to trigger the momentum in order to reduce emissions. Globally every country faces similar complex issues - climate change impact, inequality, infrastructure development and broader wellbeing - all of these are positioned for focus by the next generation digital economy. Digital technology is not only necessary for measurement but also for behavioural change. In many ways it is equivalent to the original switch from analogue to digital but with greater potential to empower individuals to take control. Taking control also means being responsible and this might be the most dramatic outcome. Any country can lead this. The question for sectors like transport, manufacturing, agriculture and energy is whether to

[26] Ibid, page 202, ref Vivid Economics, 2017a, page 7.

wait until it happens or respond and engage now. The impact of digitalisation will be ubiquitous across the entire economy.

Summary

We welcome the draft report. The Commission has been provided with a wide canvas and has grasped the opportunity to identify a range of suggestions targeted at the opportunity, some by way of framing, others by way of specific matters of detail. The next challenge for the Commission is how to take its potpourri of issues and the responses from submitters forward into a coherent, logical and clearly articulated policy framework and programme that can give effect to a seamless, smooth transition to increased productivity and diversified export base that is low emissions. We have suggested some ideas in this regard.

We would be happy to discuss these and any other issues the Commission considers relevant to progressing its inquiry and look forward to working closely with the Commission as it proceeds through its inquiry towards its final report.

Yours sincerely

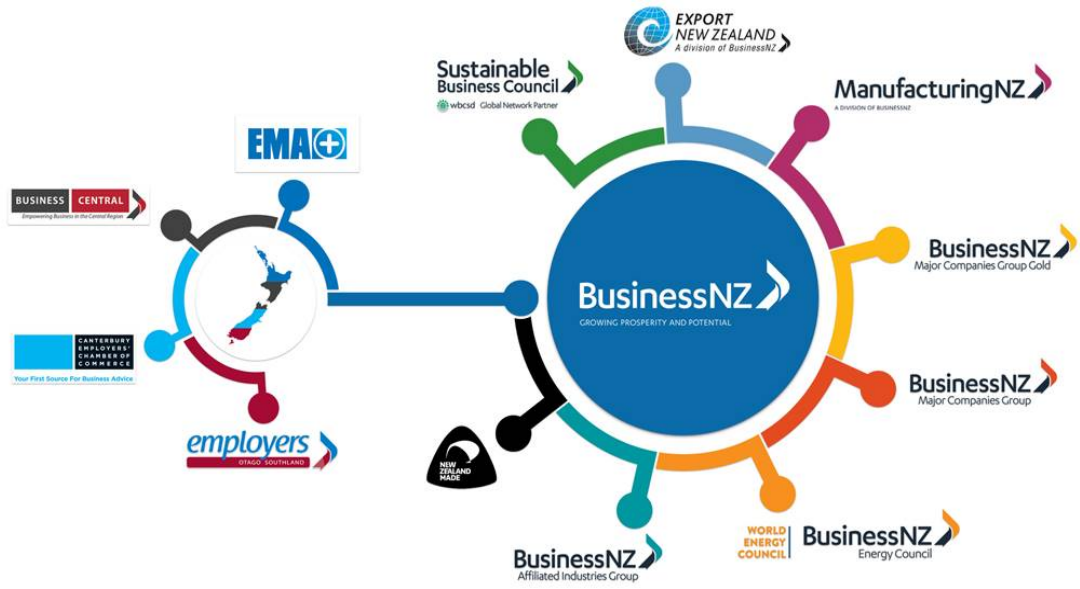
John A Carnegie
Executive Director, Energy and Infrastructure
BusinessNZ

APPENDIX ONE: ABOUT BUSINESSNZ

BusinessNZ is New Zealand's largest business advocacy body, representing:

- Regional business groups EMA, Business Central, Canterbury Employers' Chamber of Commerce, and Employers Otago Southland
- Major Companies Group of New Zealand's largest businesses
- Gold Group of medium sized businesses
- Affiliated Industries Group of national industry associations
- ExportNZ representing New Zealand exporting enterprises
- ManufacturingNZ representing New Zealand manufacturing enterprises
- Sustainable Business Council of enterprises leading sustainable business practice
- BusinessNZ Energy Council of enterprises leading sustainable energy production and use
- Buy NZ Made representing producers, retailers and consumers of New Zealand-made goods

BusinessNZ is able to tap into the views of over 76,000 employers and businesses, ranging from the smallest to the largest and reflecting the make-up of the New Zealand economy. In addition to advocacy and services for enterprise, BusinessNZ contributes to Government, tripartite working parties and international bodies including the International Labour Organisation (ILO), the International Organisation of Employers (IOE) and the Business and Industry Advisory Council (BIAC) to the Organisation for Economic Cooperation and Development (OECD).



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