

7 February 2017

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Unlocking our Energy Productivity and Renewable Potential: Draft New Zealand Energy Efficiency and Conservation Strategy 2017 - 2022

BusinessNZ is pleased to have the opportunity to provide a submission to the Ministry of Business, Innovation & Employment (MBIE) on the draft New Zealand Energy Efficiency and Conservation Strategy 2017 – 2022¹ released 13 December 2016.

Introduction

BusinessNZ welcomes the approach to the refreshed New Zealand Energy Efficiency and Conservation Strategy (the 'NZECS'). BusinessNZ has a strong interest in energy efficiency issues. Its members, and the members of the Sustainable Business Council, believe that business has a leading role to play in advancing New Zealand's environmental and social performance alongside our economic performance. As such, we strongly support energy efficiency and the role it plays in meeting New Zealand's overall energy demand needs in more resilient ways.² This is especially relevant now in light of the rapidly

¹ Background information on BusinessNZ is attached in Appendix One.

² Where energy efficiency means a change to energy use that results in an increase in net-benefits per unit of energy. In other words, reducing energy consumption by investing in equipment or changing behaviour where the cost of making the reduction (that is, the investment or the cost of the behavioural change) is less than the cost of the energy that would otherwise have been used.

changing context post-Paris, and the renewed emphasis on a transition to a lower carbon economy.

This strong interest is also driven by a desire to ensure from a 'New Zealand-Inc' perspective that energy efficiency policy proposals enhance society's overall well-being by:

1. making businesses more productive. That the practical implementation of any solutions is, as a whole, cost effective and does not impose any undue or unexpected transaction costs on third parties;
2. providing the appropriate incentives for innovation in the production, use and consumption of energy; and
3. being efficient solutions, and ultimately in the best long-term interests of end-consumers. BusinessNZ wishes to ensure that any solutions result in enhancements for businesses and consumers and meet their risk profile needs.

The key question of course, is how to achieve these outcomes in practical, real-world ways. What does "maximising the value we obtain from energy use" mean and how do we "build a willingness to do things differently"³? We can all identify opportunities but realising them is not always straight forward.

In the absence of good reasons to intervene, MBIE needs to be careful not to regulate additional costs on to businesses for an uncertain public benefit. We welcome MBIE's recognition in the strategy of its desire to be realistic about what and how government can do. We believe that the successful execution of the NZEECS will largely hinge on close collaboration of government with business as we jointly explore the opportunities to move beyond a "business-as-usual" level of energy efficiency to develop a clearer pathway to a low-emission economy that delivers on our commitment to reduce our emissions by 30% emission reduction on 2005 levels by 2030.⁴

The remainder of this submission provides some comments that we believe will lift the overall effectiveness of the strategy.

³ Statements from the Minister's Foreword, Unlocking our Energy Productivity and Renewable Potential, page 3.

⁴ Members of the Sustainable Business Council are, for example, integrating sustainability into their business strategies and decision-making. They are setting emission reduction and intensity targets and implementing a variety of initiatives to deliver them (see [Climate Change Action: Business Brief for Paris](#) for more detail).

The Goal and Purpose

We noted the following in the context of the previous targeted consultation process:

“there is no economic efficiency or cost element to the proposed overarching goal. This is extremely concerning. The goal should be amended to read:

“ for New Zealand to be more energy efficient, productive and a low emissions economy, in a least cost way, while enhancing our international competitiveness.”

We stand by this comment. Without this addition (or something similar) it is only implicit that energy efficiency policy proposals will not be advanced unless they enhance society’s overall well-being. This should be made explicit. As stated, the goal is so amorphous as to accommodate or justify *any possible action*. In other words, it will be extremely hard to measure success in anything other than a superficial way and in so being, it will remove a vital feedback loop to inform us whether we are getting closer, or further away from the goal.

It is also unclear how the goal relates to the EECA’s statutory objective. This is set out in section 5 of the Energy Efficiency and Conservation Act 2000, as follows:

5 Purpose

The purpose of this Act is to promote, in New Zealand, energy efficiency, energy conservation, and the use of renewable sources of energy.

While we completely understand the drive to reduce emissions that has emerged from the Paris Agreement, we note that pursuit of a low emissions economy (except indirectly via the three elements of energy efficiency, energy conservation and the use of renewables) is *not* a primary purpose of the EECA and can only be achieved via actions that are targeted at the EECA’s three core elements.

In light of the Paris Agreement this distinction might seem like splitting hairs. However, we have seen first-hand the real risks to the energy market during the early 2000s where multiple and conflicting objectives – especially when supported by government interventions – resulted in perverse, market distorting, and ultimately inefficient outcomes. Therefore, it is important that energy efficiency interventions should focus on **energy** efficiency. While productivity and renewables are not necessarily mutually exclusive, they can

be⁵ and so we need to carefully consider the best policy balance between them.

New Zealand is richly endowed with resources so do we primarily focus on economic growth and rely on carbon prices and other climate change policy settings to deal with fuel and technology choices (and therefore renewable penetration), or do we want stronger support for low-carbon economic output? The latter implies policies targeted at the very structure of the New Zealand economy. These issues are pertinent to the substance of the draft strategy.

Overall Strategic Alignment is Desirable

Regardless of where the Government gets to on this point, overall strategic alignment and coherence are highly desirable. We note that the two targets outlined in the strategy are intended to sit beneath some other new energy targets the Government is also developing. It would have been preferable to have visibility of the aggregate energy sector targets to inform submissions.

In addition, given the emphasis on emission reductions in the draft strategy, it is surprising that there is not more overt alignment to the Paris target at a minimum. The NZEEC's role to contribute to this is noted in the information provided. However, it is unclear how New Zealand's medium and long term emission reduction goals set out in the Paris Agreement, and the broader strategy for achieving these, interlock with the NZEECS. This is particularly important due to the significant contribution to emissions from business' use of process heat and transport fuels.

The Objectives

Further to our feedback provided in the targeted consultation, we also continue to believe that the benefits of a sectoral approach to objectives and the overall strategy are not immediately obvious. This is for the following reasons:

- a. the objectives don't advance or help shape our understanding of what needs to be done in a practical sense, but rather seem to be more generic statements of desire. In being so generic, they essentially restate the goal (with its attendant problems), but with a sectoral focus. As such, they don't help us or get us any closer to identifying what actions to take (or importantly, which actions not to take);
- b. the objectives fail to accommodate the fact that many of the actions will be cross-cutting in nature. While the "market participants" objective is intended to serve this purpose, trying to silo-out cross-

⁵ The strategy acknowledges this with the supporting fact sheet noting that with a focus on productivity, it is possible to get productivity gains and increases in absolute emissions. Such an outcome would not be inconsistent with the EECA's purpose.

cutting actions seems contrived as many actions will play out across multiple sectors. For example, more energy efficient transport initiatives will be relevant across business, households and the public sector. Similarly with respect to improved energy management practices; and

- c. a sectoral emphasis on objectives doesn't allow for the easy identification of the trade-offs required within them, let alone how or where to prioritise actions to a particular sector, or the overlaps and tensions with other objectives.

The Priority Areas

It is unclear how the priority areas emerge from the objectives. There is no information or analysis in the draft strategy.

In light of the above, we think the relationship between the goal, objectives, priority areas and actions can be simplified and clarified. We suggest the objectives be deleted and that the three priority areas be restated as the outcomes to be sought by the strategy. In this way the outcomes can be monitored and measured, aiding accountability. This can be shown as follows (with targets and actions that are purely illustrative):

Outcomes	Sector/Actions		
	Business	Household	Public Sector
More efficient and productive use of energy	<ul style="list-style-type: none"> - Uptake of measurement and monitoring systems - Process heat efficiency 	<ul style="list-style-type: none"> - PEVs - Building efficiency – standards for new build - Building efficiency - retrofit 	<ul style="list-style-type: none"> - Building efficiency - GHG impact in purchasing and leasing (leadership) - Emission reduction targets by government department
Targets:	<ul style="list-style-type: none"> - Technology uptake support 	<ul style="list-style-type: none"> - Appliance efficiency - Access to emerging technologies 	<ul style="list-style-type: none"> -
- Industrial emissions intensity	<ul style="list-style-type: none"> - Renewables for process heat 	<ul style="list-style-type: none"> - 	<ul style="list-style-type: none"> -
- Wider application of MEPS	<ul style="list-style-type: none"> - Building efficiency - Sectoral emission reduction targets 	<ul style="list-style-type: none"> - 	<ul style="list-style-type: none"> -
	<ul style="list-style-type: none"> - 		
	<ul style="list-style-type: none"> - 		

Outcomes	Sector/Actions		
	Business	Household	Public Sector
More efficient transport	<ul style="list-style-type: none"> - Improved logistics and transport use - Improved driving habits - Renewables for transport fuel - Improved engine efficiency - Uptake of telematics systems by freight operators 	<ul style="list-style-type: none"> - Improved driving habits 	<ul style="list-style-type: none"> - Improved procurement practices - Development of more resilient infrastructure - Improved planning regulation and practices
Targets: <ul style="list-style-type: none"> - EV uptake - Reduction of 870,000 MtCO_{2e} from freight sector by 2030 (30% vs 2014) 			
More innovative and efficient use of electricity	<ul style="list-style-type: none"> - Building efficiency 	<ul style="list-style-type: none"> - Renewables for building heat 	<ul style="list-style-type: none"> - Greater research and development
Targets: <ul style="list-style-type: none"> - 90% renewable electricity 			

We consider that with this simpler form of categorisation it is easier to see how particular actions play out across sectors and touch the achievement of multiple outcomes. In essence, the actions describe the strategies to be employed by the various parts of the economy in achieving the outcomes.

This is consistent with work undertaken by the BusinessNZ Energy Council (the BEC) which shows the growing interconnectedness and complexity of the energy system. Other than for ease of presentation reasons, it is no longer appropriate to seriously consider transport, heat and power as separate self-contained systems, but more as connected and increasingly inter-related. This is no more true than, for example, the use of electricity as a vehicle fuel. Changes to the efficiency of the power sector can therefore have a ripple effect in transport impacting on the outcomes sought there.

Setting the 'Direction of Travel'

Therefore, in this context, the Government has an important role to play in ensuring the policy settings which impact on the energy sector support long-life investments consistent with the desirable long-term future. If the strategy is to be a useful addition to the overall public policy landscape at all, this role must be to reduce operating uncertainty and lower basic risk. To do this, the strategy must deliver a consistent and coherent policy framework for business.

There are three aspects to this:

- a. it should help inform investment decisions by both developers and users. While judgement will inevitably be required (the strategy should contribute to reducing operational risk, but can never eliminate it), developers and users will look for the removal of uncertainty that arises from such factors as regulatory opportunism and the absence of policy stability;
- b. it should allow businesses (both energy users and investors) to marshal their international and domestic resources more efficiently; and
- c. it needs to be pitched at a sufficiently high level so as to be as independent as possible from politics and the political cycle. It is recognised that governments will always make political commitments to the electorate and that the nature of these commitments may vary markedly between different governments. The intention is not to try to constrain this. However, independence from day-to-day politics would:
 - i. provide a greater possibility of durability or longevity. In other words, the framework within which the specific details occur would be more robust as to changes of government, rather than driven by it. Businesses would therefore be more likely to act upon it; and
 - ii. assist with achieving a bipartisan approach. A bipartisan approach is desirable given the long-life nature of the assets involved. The benefits of a robust and durable energy strategy are as real as, for example, independent monetary policy and bipartisan trade and foreign policy.

Practical Actions

Ultimately, the success of the new energy strategy will be dictated by the extent to which the Government can quickly embed its approach to the energy sector into practical actions that contribute to the desired outcomes. This will in turn have implications for the extent of ambition around targets and the nature of the targets.

In a commercial environment, energy efficiency drives investment where the costs that can be avoided outweigh the benefits to be gained. Businesses and consumers will react to rising energy prices in making this calculation.

Businesses are currently taking/investigating steps to make their plant more efficient and to lower emissions. Our members, and members of the Sustainable Business Council, have identified opportunities for emission reduction between now and 2020, and have formed collaborative groups to go further, faster. The Climate Energy Action group is focussing on signing up businesses to publicly commit to delivering an energy reduction of at least 1.5% each year, working from analysis that if every business did this to 2030, the business sector would have delivered the 30% emission reduction target (vs 2005). The Low Carbon Transport Group has initially focussed on promoting biofuel uptake, leveraging its networks to engage 19 businesses in a 'mythbusting' webinar. Broader activities of the SBC include collective action on freight efficiency, and working with MBIE on a joint procurement model for electric vehicles between the private and public sector.

The work of the BusinessNZ Energy Council shows that under a particular set of economic and social conditions, greater uptake of renewable energy is possible. A higher carbon price is key, but even this will not be sufficient to trigger the uptake of lower carbon technologies or fuels, where other issues such as technology gaps and supply chain logistics predominate. Many businesses are, for example, currently technology-dependent and unable to easily transition to more carbon and energy efficient technology.

Attempting to increase the level of energy efficiency by regulation in this context may not be optimal unless it can be clearly shown that the public benefits are greater than the private benefits of taking action.

Key elements to the success of the strategy will be the proposal to develop and implement a Process Heat Action Plan and greater support for increased investment in energy research, development and demonstration. Reductions in process heat demand can be achieved through the amount of material to be heated (e.g. product design) or through technology (e.g. microwave heating). But there are also opportunities to lower temperature through other technologies (e.g. plastic composite materials instead of metals to lower temperature). There is also an opportunity to further use this additional heat (e.g. CHP).

Other important elements relate to the development of climate resilient transport infrastructure including the uptake of lower emissions transport technology and fuels.

These are just a few opportunities but the key question is what can the Government and other institutions do to stimulate additional action, beyond business-as-usual, to support the business sector achieving these and other

opportunities that might deliver public benefits that exceed those that can be achieved commercially.

It is imperative that these elements are developed in a bottom up way in conjunction with business. Business wishes to partner with government to explore transformative approaches, the implications of improving energy and fuel efficiency standards and partnership models for innovation and implementation. We are willing to help facilitate access to business during this work.

The Targets

Ambitious targets can be helpful in defining the direction of travel and galvanising sector engagement. Where targets are used in an enduring way they can, as noted above, serve to encourage investment and innovation by making it possible to plan with greater confidence, knowing that assumptions made about the future are likely to hold into the medium and longer term. This has been the positive experience associated with the renewable electricity target.

However, such targets can also raise expectations of actions that cannot be easily delivered or require policy prescriptions that force non-market outcomes when assumptions about future market conditions (such as technology emerging slower than anticipated) do not materialise.

The attainment of energy efficiency targets also has a cost that must be borne by taxpayers, businesses or consumers. This point is especially pertinent in light of the Energy Innovation (Electric Vehicles and Other Matters) Amendment Bill currently before the Parliament which seeks to expand the purpose of three existing energy levies to enable the funding of any of the EECA's activities.

Key to the successful execution of the plan and the extent to which the proposed targets can be met, and exceeded will be

- a. the extent to which the plan is developed in close collaboration with business; and
- b. the extent to which the targets form a part of a sound policy framework that balances the "energy trilemma" of energy security, energy equity and environmental sustainability to enable the delivery of robust and resilient energy infrastructure.

Summary

BusinessNZ supports the NZEECS. Overall the strategy captures the important areas where improvements to energy efficiency could be made – transport, industrial process heat and renewable electricity. With better access to credible information about their energy use and the options

available to them, and strategically focused support, businesses and households will be able to make smarter energy decisions.

However, much remains to be done by the MBIE and the Energy Efficiency and Conservation Authority (EECA) in understanding the connection to the wider energy sector and emission reduction targets, and in fleshing out the details that sit beneath the strategy and getting it into a shape for implementation. BusinessNZ looks forward to working with both MBIE and EECA in helping to do this.

Yours sincerely

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

John Carnegie
Manager, Energy, Environment 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](#)).

The BusinessNZ family



www.businessnz.org.nz