

Z Energy submission on replacing the New Zealand Energy Efficiency and Conservation Strategy 2011 – 2016

Z Energy welcomes the opportunity to submit on replacing the New Zealand Energy Efficiency and Conservation Strategy 2011 – 2016.

The Paris Agreement, which New Zealand has ratified, seeks to hold the global average temperature rise to well below two degrees Celsius above pre-industrial levels. In order to meet this target and to 'do our fair share' New Zealand will need to reduce emissions steadily to 'net zero' by 2050.

Z believes that commitment, clear direction and changes to current policy settings will be required for New Zealand to meet this target.

Z supports the setting of ambitious and clear pathways and targets so all parties – business, government, and society – can move towards common and meaningful goals and measure progress against them.

The setting of clear objectives and targets for energy efficiency and renewable energy for the next five years is an important step towards driving change. Outside of carbon offsetting programmes, ultimately the decarbonisation of the New Zealand economy in a short space of time appears to Z to be the only outcome consistent with New Zealand making a fair contribution towards a less than two degrees outcome.

Failure to prepare for climate change has been identified as posing the greatest risk to the global economy over the next decade in a World Economic Forum survey released recently. This risk sits alongside the global environmental and social risks caused by rising temperatures, which are now very well understood and don't need to be articulated here.

Z appreciates perhaps better than most, the challenges posed by climate change and the inherent challenges in responding meaningfully through clear and measurable targets. Z is currently in the process of setting its own sustainability targets with a clear focus on contributing to emissions reductions so particularly appreciates the opportunity for input, as well as the significant challenges that setting these targets presents.

It is against the context of the challenges we face from unmitigated climate change and the challenges in responding meaningfully that Z offers the following comments. These comments are intended to be constructive and we look forward to discussing them further with EECA.

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Submission Form

1. Does the proposed goal capture what you see as the desirable future state from the promotion of energy efficiency, energy productivity and renewable energy in New Zealand?

In order for a goal to provide a meaningful call to action it needs to be concrete and measurable. While the goal to 'support New Zealand to be an energy efficient, productive and low emissions economy' is a nice idea, it is neither concrete nor measurable. A goal needs to reflect either the end state of what an economy as described actually looks like, or paint a clear pathway to that future.

Further, for consistency and clarity, Z suggests that the goal should reflect and be linked to New Zealand's international commitments to reducing emissions.

Z proposes a more measurable goal such as 'to cause New Zealand to be an energy efficient, productive and low emissions economy with declining greenhouse gas emissions in line with meeting New Zealand's international climate change commitments.'

2. Where do the challenges and opportunities lie for energy efficiency and renewable energy in New Zealand over the next five years?

Z has confined its comments in this section to the transport and liquid fuels sector.

As mentioned, outside of carbon offsetting, the decarbonisation of the New Zealand economy is the only outcome consistent with a fair contribution towards a future with less than two degrees of further temperature rise. As such, Z believes decarbonisation and the pathway to achieving it requires a much greater focus in this document.

There are a number of challenges in the transport sector, not least of which is the volatility in commodity prices. Z expects oil prices to remain relatively low for the foreseeable future and this degrades the economic viability of renewable alternatives. In addition, lower oil prices do not encourage the reduction in the use of oil-based fuels and can also make the implementation of efficiency measures more challenging. The artificially low price of carbon emissions only exacerbates this problem.

Z has first-hand experience of the economic difficulties in bringing renewable, low-carbon energy projects to market and cannot see the economics changing materially in the medium term. If renewables are to play a greater role, particularly in the transport sector, it will require government direction and consistent new policy. By way of example, ethanol as a biofuel is heavily subsidised with excise exemptions, there is increasing support for EVs but nothing for biodiesel. There is significant policy inconsistency in this space which is limiting the potential for immediate and potentially large emissions reductions from transport fuel consumption.

New Zealand has significant untapped low/zero carbon feedstocks and resources for energy use but the use of these is constrained by current economic and policy conditions – tallow for biofuels, wood waste for various biofuels, for example. As a company with deep customer relationships across the commercial sector in particular, Z believes there is a strong and growing commercial appetite to embrace more sustainable options and Z would like to see this strategy document more clearly articulate the pathways for cleaner energy solutions to be realised and developed.

3. Do the proposed objectives and priority areas capture the key contributions that are needed to achieve the goal?

Z agrees in principle with the proposed objectives and identified priority areas, however Z believes that the actions under these priority areas are inconsistent, lack the ambition to help New Zealand achieve its climate change commitments and are, for the most part, not measurable.

There is inconsistency in the way that the targets are set, with a mix of outputs and outcomes creating a lack of clarity. Z believes the strategy should adopt an emissions-based measure throughout, rather than implementing targets based on supporting specific technologies. For instance, the target for the efficient and low-emissions transport priority area should be an emissions reduction target in line with meeting New Zealand's international commitments.

There is just one target in the strategy document relating to the transport sector, and that is the already stated desire to have 64,000 EVs in New Zealand by 2021.

The electric vehicle (EV) target appears to apply to the light passenger vehicle fleet only. Petrol sales make up only 50 per cent of the transport fuel sold in New Zealand and the strategy doesn't outline any targets to reduce emissions in other sectors. It is unclear how any of the supporting actions outlined can help commercial or freight businesses adopt and use lower emission fuels, nor what impact the strategy hopes to have in this space.

Given that transport emissions make up approximately 17 per cent of New Zealand's total carbon footprint and that the document states the transport sector is one of the areas of 'greatest potential' to reduce carbon emissions, there feels like a disconnect between the potential emissions reductions from the transport sector and the absence of actions.

4. Does the focus on what each group can contribute resonate with you? Do you think anyone is missing?

If by groups, the reference is to business, individuals, the public sector and marketing participants, then it is not clear what the scope and make-up of the market participant group is. This needs to be clarified in order to understand if the focus of 'cross-cutting actions' is appropriate to this group.

We believe that the government is responsible for the following three areas in helping New Zealand to arrive at a low emissions future:

- Supporting and encouraging early adoption of new or existing low carbon technologies so that the value and applicability to the New Zealand situation can be demonstrated and value realised
- Through policy, encouraging and assisting the widespread adoption of new or existing low carbon technologies.
- Raising awareness of new technologies and then promoting the uptake of these technologies through the creation of education resources and promotion.

Z recommends that the strategy objectives be more explicit and quantitative in line with New Zealand's international carbon reduction / climate change commitments. This would in turn drive more effective actions that at present are not mentioned in this strategy which could include such things as congestion charging, public transport funding, alternative transport funding and support for renewable fuels.

Further, Z suggests that there is value in the addition of a further group – Energy Providers. The focus of this group would be the promotion of, and preparation for, reductions in the emissions intensity of supply rather than reduction in energy use.

5. Taken together, do you think the proposed goal, objectives and priority areas will set a clear direction for action to unlock our energy productivity and renewables potential?

While Z very much appreciates that setting targets in this space is challenging, the scope of the climate change challenge ensures we all need to strive for tangible and measurable carbon reduction outcomes, at least in line with the New Zealand government's international commitments.

In this context Z believes that the targets and actions are not ambitious enough to help New Zealand meet its climate change commitments.

As there are almost no measures included in the strategy it will be almost impossible to measure the impact of much of the work that might flow from it and to understand whether efforts are focussed in those areas that can achieve the greatest level of emission reductions. Z feels that there are too many actions, that some of these will have only an incremental effect and, as such, will distract from the core issue of reducing the emissions intensity of New Zealand's economy.

The link between the targets and actions are unclear and this strategy should focus on identifying, quantifying and removing roadblocks to achieving a clear and compelling and measurable overarching goal.

Z recommends that an emissions target is set for each priority area and that the choice of technologies and solutions is not limited by the strategy document. This is a rapidly changing area and it is unclear what might be possible and viable in the next few years. An emissions reductions target would enable support for whatever technologies can offer New Zealand the best value for money and the most efficient emissions reductions over the next five years.

6. What specific actions could help us to achieve the goal of the Strategy? What, if any, additional costs would you face if those actions were implemented? Please quantify if possible.

Z's comments in this section are in relation to the priority area of efficient and low-emissions transport and follow on from previous comments.

Z's primary concern is that the single draft target which is for the introduction of EVs has a very narrow focus that limits other technologies and activities which could have an at least equal or perhaps more significant effect. Rather than singling out a target for EV penetration, Z believes a better approach for the strategy would be to target a level of emissions reduction from the use of transport fuels and then outline the actions which would be required to achieve these targets.

Further, Z understands the EV target applies to the light passenger vehicle fleet only. Petrol sales make up only 50 per cent of the fuel sold in New Zealand and the strategy doesn't outline any targets to reduce emissions in other sectors. It is unclear how any of the supporting actions outlined can help commercial or freight businesses adopt lower emission fuels, nor what impact the strategy hopes to have in this space.

Z believes a multi-faceted approach is required to accelerate the unlocking of the potential emissions reduction in the transport area. The list below highlights additional actions (over and above the introduction of EVs) and is not exhaustive or complete.

Z believes that a less constrained and more ambitious programme is not only possible, but necessary to help New Zealand achieve its climate change commitments. There could be additional costs associated with some of the ideas and initiatives Z suggests below and some of these would be commercially sensitive. This is not by any means an exhaustive list but rather a sample to demonstrate further possibilities and / or areas of inquiry.

- a) Biofuels can deliver clear and tangible emissions reduction benefits which are immediately able to be realised through the current vehicle fleet in New Zealand. Biofuels are a 'drop in fuel source' through which consumers can cut their transport-related emissions without having to change their investment in current technology – i.e. buy an EV.

There is no mention in the supporting actions of the benefits of biofuels or any exploration around greater adoption of this lower emissions fuel source.

Z believes the strategy should support the rapid development of investment-ready 'drop in' biofuel projects able to replace mineral fuel, at scale, targeting those sectors currently unsuitable for electrification, i.e. marine, aviation, heavy transport and stationary energy.

- b) Appropriately additivated fuel reduces fuel consumption. The US recognises this and require that petrol be additivated. There is inconsistency across New Zealand fuel suppliers on the application of additivated fuel. This provides another 'drop in fuel source' solution through which consumers can cut their transport-related emissions without having to change their investment in current technology.
- c) Addressing the recent trends in the light vehicle fleet such as the increasing trend towards sport utility vehicles and utility vehicles being used as passenger cars. In spite of advances in fuel efficiency these vehicles are less efficient than similar aged smaller vehicles.
- d) Fuel reduction can also be achieved by increasing vehicle occupancy thereby reducing vehicle kilometres travelled and/or better managing travel to avoid congested traffic periods. Regulatory mechanisms to promote greater productivity such as road (congestion) pricing are being used in other international jurisdictions and could potentially deliver multiple benefits in the New Zealand context.
- e) Public transport and active transport options and the contributions these can have to reducing the emissions profile of our transport sector are largely ignored in this strategy. While these areas may be the responsibility of other government departments, in order to understand the overall programme and where the largest gains can be made it would be advantageous to draw them into this document.

Further, Z believes government's proposed definition of EVs could be broadened so that other relatively low carbon vehicle technologies such as plug-in hybrid vehicles are promoted. In this regard, Z has provided a submission to Select Committee on the Energy Innovation (EVs and Other Matters) Amendment Bill and it will do similarly with the Ministry of Transport and its proposed changes to the Land Transport Rule: Road User. See appendix one.

7. Do you agree that the preferred targets will be measurable and meaningful targets, and support the objectives and actions?

The two targets as currently stated are measurable but are not well aligned with the stated objectives nor the actions. Emissions targets which are in line with New Zealand's Paris commitments would ensure that the targets remain relevant in the changing energy context and provide the flexibility to pursue the most effective solutions on behalf of New Zealand.

This strategy should take the opportunity to set meaningful targets which would set a clearer direction and pathway for New Zealand's energy future.

8. How can we ensure that energy data and research generates knowledge and understanding that can help to unlock our energy productivity and renewables potential?

Z doesn't believe that it's a lack of research holding New Zealand back from a low emissions future. Rather New Zealand needs to focus on changing user behaviour, buyer preferences and helping improve economic outcomes improving for low emission technologies. For this reason, Z recommends that this strategy focus on the three areas outlined under question four above and use this strategy development process to commit to stronger, clearer and more measurable targets in line with New Zealand's global climate change commitments.

Appendix

Submission to Select Committee on the Energy Innovation (EVs and Other Matters) Amendment Bill

24 January 2017

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Submission on Energy Innovation (Electric Vehicles and Other Matters) Amendment Bill

Introduction

Thank you for the opportunity to provide our views on the Energy Innovation (Electric Vehicles and Other Matters) Amendment Bill (the Bill).

Z provides approximately 46 per cent of New Zealand's bulk liquid transport fuel requirements through some 340 retail service stations and some 160 truck stop sites across New Zealand. Z also supplies fuels directly to commercial customer sites by road transport. Z's road transport delivery activity is undertaken by specialist transport companies like Pacific Fuel Haul and Allied Petroleum as well as Z's Mini Tankers fleet of direct-to-machinery diesel re-fuellers. Typically some 150 heavy vehicles travelling about 15 million kilometres each year are involved in delivering Z's products to markets. Associated with this delivery activity, Z indirectly pays in the order of several million dollars of Road User Charges (RUC).

As a consequence and alongside the company's commitments to sustainability Z has an interest in the proposed changes in Part 4 of the Bill, amendments to the Road User Charges Act 2012.

The proposal

In broad terms Z understands this part of the Bill will ultimately enable a period during which electric heavy vehicles will be exempt from RUC. Z understands that the desired outcome is to promote the use of electric heavy vehicles and Z supports these outcomes.

Z is aware that closely associated with this Bill are the proposed changes to the Land Transport Rule (Road User) and Z will be providing a written submission to the Ministry of Transport on that. While the definition of electric vehicles will be prescribed in the Road User Rule, the changes across these different levels of legislation are inextricably linked. As a consequence Z is taking this opportunity to share its views on the possible outcomes of these changes.

Z comments on the proposal

Z notes that the proposed definition of an Electric Vehicle (EV), namely "*a motor vehicle with motive power wholly or partly derived from an external source of electricity*", departs significantly from more traditional global definitions which typically refer to the vehicle's propulsion system being electric rather than focussing on the primary source of the energy.

Z has investigated the feasibility of low emission heavy vehicles for its delivery activity. The current heavy vehicle power train (hybrid electric, plug-in hybrid electric and electric only) development path suggests that hybrid electric vehicles are the most plausible low emission alternative that can be implemented in our Mini Tanker fleet in the short term. Z believes that relative to the contribution of other heavy vehicle low emission technologies these hybrid vehicles can play a significant role in reducing carbon emissions before 2021. However, these hybrid vehicles do not meet the currently proposed definition of electric vehicles.

As a consequence, Z suggests government should consider taking a broader and more phased approach during this early transition phase and promote a wider selection of low emission heavy vehicles. Z believes this could be achieved by adopting a more widely recognised definition of EVs. A broader definition would extend to vehicles with hybrid power trains and this would have the benefit, at least in the short term, of accelerating the uptake of low emission heavy vehicles and contributing to better environmental outcomes.

As the availability of heavy vehicles predominantly reliant on an external electric charging source grows, policies could be revisited.

Furthermore, Z believes there is risk that the currently proposed EV definition could be exploited relatively simply by those wanting to evade RUC. Z does not condone such action and the following information is shared solely to demonstrate the pressure that the proposed changes will expose transport operators to. In the coming year Z is forecast to indirectly pay in the order of \$3.7m in RUC for powered vehicles (RUC will also be paid for trailers).

RUC is a substantial part of transport costs and the opportunity to avoid that payment could be tempting for some transport operators. Whilst it would be outside the spirit of the proposed legislative changes and it would be negligible in terms of contributing to the vehicle's power train, it would be relatively simple to modify current diesel engine heavy vehicles so that their motive power was partly derived from an external source of electricity, and therefore arguably they would be exempt RUC. Z is aware of the Ministry of Transport's concern that some transport operators have been tampering with their vehicle emissions technology to avoid the cost of diesel emission cleaner. For a large truck, on a vehicle kilometre travelled basis, the cost of RUC per km is approximately eight times greater than the cost of diesel emission fluid, therefore the temptation to exploit this opportunity is significantly higher.

For further context, if a fleet of similar size and activity to that delivering Z's fuel were to succeed with such an approach, the lost revenue would be equivalent to the lost revenue for the years 2016 and 2017 forecast for the uptake of all light EVs in the Cabinet paper Electric Vehicles: Package of Measures to Encourage Uptake.

Z recently made enquires to the New Zealand Transport Agency and understands it is developing inspection requirements for: a) vehicles entering the fleet and b) modifications relating to any electric drive system fitted to a vehicle. We acknowledge this will potentially help identify cases attempting to exploit this opportunity however, inherent with the proposed EV definition is a degree of subjectivity. Z suggests government officials review and refine the EV definition to reduce the risks identified above.

Conclusion

Z agrees in principle with the outcomes the Bill aims to achieve. However, Z thinks there is a good opportunity to faster accelerate the uptake of low emission heavy vehicles and this could be achieved by adopting the more traditional definition of EV.

Z Energy Limited