



MAJOR ELECTRICITY USERS' GROUP

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Ministry of Business, Innovation & Employment
By email to energymarkets@mbie.govt.nz

Dear Marcos

NZ Energy Efficiency and Conservation Strategy refresh

1. This is a submission by the Major Electricity Users' Group (MEUG) on the Ministry of Business, Innovation & Employment Electricity Authority (MBIE) targeted consultation paper "New Zealand Energy Efficiency and Conservation Strategy Refresh: 2017-2022" (NZECS 2017-22) received by email 7th July 2016.¹ The proposed refresh will come into effect on or before August 2017. The new NZECS 2017-2 will be the fourth NZECS since the initial strategy was published in September 2001.²
2. MEUG members have been consulted in the preparation of this submission. This submission is not confidential. Some members may make separate submissions.
3. This submission has three sections:
 - a) Comments on the overall regulatory framework and NZECS;
 - b) Comments on the draft framework for the NZECS; and
 - c) Concluding comments

Comments on the overall regulatory framework and NZECS

4. In MEUG's view New Zealand will be more productive and innovative if we have efficient markets for supply of and demand for energy efficiency, conservation and renewable energy services. MEUG's preference is to let individual buyers and sellers discover prices in these markets. The role of government should be to remove impediments to efficient markets and prices developing. Those impediments are the usual suspects such as market power, information asymmetry and missing prices for the opportunity costs (or benefits) of externalities.

¹ <http://www.mbie.govt.nz/info-services/sectors-industries/energy/energy-strategies>

² NZECS has been used to describe the strategy in the Act since 2007 though strictly speaking "strategy" is defined in the Act as a national energy efficiency and conservation strategy (NEECS).

5. In the electricity market prices paid by all consumer classes better reflect likely “efficient” prices than in any prior year. Progress since 1996 when the wholesale spot market commenced has been steady and competition and choice for consumers in the retail market has accelerated since the reforms in 2010 coupled with better technologies and access to better and more timely information across the supply chain and for end consumers to make decisions. Regulated line prices have also become better aligned with efficient levels since Part 4 of the Commerce Act was enacted in 2008. That regulatory regime has and is also being continuously improved with all parties very mindful of the opportunities and risks of emerging technologies especially for demand side management (DSM) and distributed generation (DG).
6. In the view of MEUG delivered electricity prices to all classes of consumer would be close to true “efficient” levels equal to or even better than the upper percentile of other OECD countries. MEUG has no evidence or metrics to substantiate that view however we do observe that in overseas jurisdictions distortions from government interventions picking technology winners or ad hoc climate change policies resulting in unintended consequences are the norm. MEUG does not claim that New Zealand’s delivered electricity prices are exactly equal to “efficient” levels (proving that is not trivial) – potential problems with distribution pricing, transmission pricing and overpayment by consumers of approximately \$80m per annum between the mid-point and 67th percentile regulated cost of capital are still work in progress.³ At least in New Zealand the decisions to evolve how those prices are set and will evolve in the future are decided by independent regulators.
7. It is against that background of New Zealand having and being on the path to improving alignment of actual market and regulated electricity prices with truly efficient prices that the topic of efficient levels of DSM, DG and conservation need to be considered. If you take a literal purpose of the Energy Efficiency and Conservation Act 2000 (the “Act”) is to conserve, that is reduce demand for, electricity, then how can that be reconciled with New Zealand’s electricity prices being near efficient levels and therefore absent any other barriers the current level of DSM and DG and overall demand for electricity must therefore also be efficient?
8. The NZEECS is a requirement of the Act and guides the work of EECA. In MEUG’s view the Act in relation to the electricity sector is an anachronism of when electricity policy, investment, operations and prices were dictated to by government and or unregulated monopolies or parties with substantial market power.
9. In prior years establishing a government agency such as EECA to intervene in response to an electricity sector where prices were not set by competitive pressure may have had merit as a transitional measure before a competitive electricity market and ancillary markets for energy efficiency and conservation such as DSM and DG emerged. The electricity sector now has price discovery mechanisms and competition in the spot, retail, financial derivative and carbon markets plus monopolies with greater revenue and or price control than beforehand that allow buyers and sellers to trade in DSM and DG services with less risk of market power and information asymmetry barriers and distortions. As noted above in paragraph 6 MEUG does not claim the markets and regulated price regimes as at 2016 are optimal – but they are changed in just about every aspect from governance to market structure compared to when the Act was promulgated in 2000. Those markets for discovering prices relevant to electricity users’ making decisions on being more efficient, conserving or investing in renewable generation are, like every other electricity market in the world, subject to continuous improvement and innovation partly driven by emerging technologies, new services and business models.

³ Refer MEUG to Commerce Commission, Submission on Input Methodologies review – Invitation to contribute to problem definition, paragraph 25, 19th August 2015, <http://www.comcom.govt.nz/dmsdocument/13626> .

10. MEUG does not consider the Act, the need for a statutory NZEECS and the current interventions by EECA in the electricity sector are relevant to today's electricity sector. And they will be less relevant and likely more distortionary for future years as emerging technologies allow more consumers an opportunity to choose the level of economic utility they desire to purchase for DSM and DG services (or sell if generating excess power from PV for example). MEUG acknowledges that there are still barriers to efficient prices being discovered in the electricity sector and EECA has a role in mitigating for example information asymmetry barriers with product labelling to decrease the cost in comparing appliance energy efficiencies. Other agencies have roles to mitigate market power (the Commerce Commission and Electricity Authority) and to shadow price climate change externalities (Ministry for the Environment). MEUG is sceptical much of the other functions of EECA in the electricity sector add value by way of removing barriers to the development of efficient markets. The opposite is more likely with poorly designed and targeted interventions creating distortions and adding a layer of transaction and administrative costs and rent seeking behaviour that lowers New Zealand's productivity.
11. In MEUG's view the refresh of NZEECS is a second order issue compared to addressing the question of whether the Energy Efficiency and Conservation Act promulgated in 2000 that governs the NZEECS and established EECA are fit for purpose given 15 years of radical change in the development of markets for electricity supply and demand, electricity efficiency and conservation and electricity renewables.

Comments on the draft framework for the NZEECS

12. To be an effective guideline for deciding implementation tactics and allocation of resources NZEECS 2017-22 needs to clearly define what problems currently exist. This includes a quantitative analysis. The draft framework could be strengthened to improve defining the policy issues to be solved by:
 - a) Requiring justification in the draft framework of the list of barriers perceived to hinder the optional demand and supply of energy efficiency and conservation. MEUG has previously noted some perceived barriers are not barriers to an efficient market outcome but are instead normal commercial limitations for some parties and competitive advantages for others.⁴
 - b) A focus on quantifying what the net benefit would be in the short and long term consumer and producer surplus if the true economic barriers were reduced. Robust data is needed; not unsubstantiated references.⁵
13. MEUG's suggested approach for the framework is to require EECA to identify and quantify barriers that need to be overcome and rank options in terms of highest to lowest NPV to decide where to focus effort.

⁴ For example see MEUG submissions to EECA on annual draft appropriations:

- Dated 24th November 2015 for appropriations proposed for 2016/17. Refer <http://www.meug.co.nz/node/727>
- Dated 12th December 2014 for appropriations proposed for 2015/16 including footnotes referring to prior MEUG submissions also. Refer <http://www.meug.co.nz/node/645>

⁵ For example the reference in the MBIE paper section 4, p4, "These initiatives are resulting in real efficiency improvements of approximately 2 PJ per year as well as a range of other benefits". MBIE should provide a reference for the source of that estimate. MEUG also notes the use of an energy calorific value measure, in this case PJ, is inferior and potentially will result in inefficient use of resources, if used as a target metric. A better measure is the opportunity value or cost of the energy conserved or saved due to energy efficiency interventions compared to the outcome without an intervention. MEUG acknowledges that the Act is partly to blame for allowing energy volumes to be a feature of the NZEECS because energy conservation is defined as meaning a reduction in energy use. Hence volumes used are needed to comply with the Act. The Act also defines "energy efficiency means a change to energy use that results in an increase in net benefits per unit of energy." Net benefits isn't defined in the Act but can be assumed to be economic value. NZEECS to date and the draft NZEECS 2017-22 have been and are weak on having robust estimates of net benefit for energy efficiency strategies.

14. The proposed objectives in s.5.2 of the draft framework paper is a useful approach compared to prior year NZEECS that had a fuel source-centric approach. The proposed objectives using three broad end user classes (the “actors” that make decisions) comprising consumers, business and public sector is a good high level classification. MEUG also likes the tenor of how those objectives are described. For example with text underlined for emphasis by MEUG:
- The “Consumer objective: Consumers choose energy efficient technologies and adopt energy efficient behaviours” and
 - The “business objective: Businesses make energy efficiency and renewable energy investments, and adopt best-practice energy management”
- Both align with MEUG’s preference (paragraph 4 above) to “let individual buyers and sellers discover prices in these markets.” The role of government and its agencies, being EECA, Commerce Commission and the Electricity Authority, is to create markets where household consumers can choose and businesses can invest in DSM and DG if they wish to.
15. We are interested to know what market failure has been observed to support proposed “cross-sectoral objective”. If prices across energy sources are efficient then entrepreneurs have an incentive to monetise cross-sectoral opportunities and development of information or knowledge markets on such are best left to interested commercial parties to develop. Information has value to specialist businesses and government is ill equipped to intervene in such markets. This is different though for household appliance markets where the cost of searching for information is too costly to allow an informed view on energy performance for most households; hence EECA’s appliance labelling for energy performance benefits the economy.
16. In conclusion the draft framework to be used to prepare NZEECS 2017-22 can be strengthened by identifying economic barriers to markets in energy efficiency, conservation and renewables working effectively, listing options to mitigate those barriers, ranking options to identify the best bang-for-buck and then developing a plan to implement those highest value projects. The proposed 5 objectives in the framework consultation paper are a good starting point.

Concluding comments

17. In MEUG’s view the refresh of NZEECS is a second order issue compared to addressing the question of whether the Energy Efficiency and Conservation Act promulgated in 2000 that governs the NZEECS and established EECA are fit for purpose given 15 years of radical change in the development of markets for electricity supply and demand, electricity efficiency and conservation and electricity renewables.
18. The draft framework to be used to prepare NZEECS 2017-22 can be strengthened by identifying economic barriers to markets in energy efficiency, conservation and renewables working effectively, listing options to mitigate those barriers, ranking options to identify the best bang-for-buck and then developing a plan to implement those highest value projects. The proposed 5 objectives in the framework consultation paper are a good starting point.

Yours sincerely



Ralph Matthes
Executive Director