Summary and analysis of submissions

Draft New Zealand Energy Efficiency and Conservation Strategy 2017-2022

JUNE 2017

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

EECA Energy Efficiency and Conservation Authority
Te Tari Tiaki Pūngao

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Introduction

In 2016, the then Minister of Energy and Resources publicly notified his decision to replace the New Zealand Energy Efficiency and Conservation Strategy (NZEECS) 2011-2016. A draft NZEECS 2017-2022 (the draft NZEECS) was released for public consultation on 13 December 2016, and submissions closed on 7 February 2017.

The NZEECS is a statutory requirement of the Energy Efficiency and Conservation Act 2000 (the Act), and is a companion to the New Zealand Energy Strategy 2011-2021 (the NZES), which remains the Government's primary statement of energy policy. The NZES is a non-statutory document.

The NZEECS sets the overarching policy direction for government support and intervention for energy efficiency, energy conservation and the use of renewable sources of energy, and guides the work programme of the Energy Efficiency and Conservation Authority (EECA).

The draft NZEECS was publicly notified in accordance with section 15 of the Act, as a draft replacement national energy efficiency and conservation strategy. The Ministry of Business, Innovation and Employment (MBIE) received 78 submissions on the draft NZEECS from a range of submitters.

Submissions were summarised by MBIE with assistance from EECA, and analysed by officials from relevant policy agencies[1] led by MBIE. Based on this analysis, MBIE provided advice to the Minister of Energy and Resources and recommended changes to the draft NZEECS in accordance with section 16(4) of the Act. After considering officials' advice, the Minister of Energy and Resources decided to incorporate officials' recommendations into the final NZEECS 2017-2022.

This summary of submissions, officials' recommendations and Minister's decision on the draft NZEECS was prepared in accordance with section 17(2)(a) of the Act.

[1] Officials involved were from MBIE, EECA, Ministry of Transport, Ministry for the Environment, and New Zealand Transport Agency.

General comments and themes from submissions

Summary of submissions

MBIE received 78 submissions on the draft NZEECS from a wide range of stakeholders. A full list of submitters is attached in Annex 1.

Many submissions agreed with the proposed goal, priority areas and objectives, but sought more clarity and ambition.

The majority of submitters supported or partially supported the proposed goal, priority areas and objectives. Those in support of the proposed goal noted that it captures the desired future state for energy efficiency and renewable energy in New Zealand, and picks up on the value of energy to reducing emissions and supporting economic and social outcomes (e.g. health and air quality).

However, many submitters, including those who partially supported the draft NZEECS, considered that the proposed goal and objectives could be improved in one or more of the following ways:

a. Higher level of ambition — a common theme is that the draft NZEECS is conservative and does little more than confirm the status quo. Many submitters considered that the NZEECS's goal could be more ambitious, with some suggesting that it should have a more explicit focus on meeting New Zealand's emissions reduction targets under the Paris Agreement.

b. More specific goal and objectives— many submitters suggested that the goal and objectives should be more specific, measureable and time-bound.

c. Clearer link between goal, targets and actions — some submitters considered that the link between the goal, targets and actions are unclear and the NZEECS should focus on identifying, quantifying and removing barriers to achieving a clear and compelling and measurable overarching goal.

d. Alignment of government goals and objectives — some submitters noted that the Government's goals and objectives should be aligned in support of renewable energy. For example, the New Zealand Wind Energy Association and the Independent Electricity Generators' Association considered that the Electricity Authority's statutory objective does not require consideration of policies for addressing externalities such as carbon emissions, resulting in decisions which could have a negative impact on New Zealand's renewable potential.

e. Goal to be met at least cost — some submitters suggested that the goal should include an economic efficiency or cost element, e.g. the goal should be rewritten as "... for New Zealand to be more energy efficient, productive and a low emissions economy, in a least cost way, while enhancing our international competitiveness." The submitters who most strongly opposed to the goal noted that the Act does not require a goal in the strategy, and that reducing emissions is not part of EECA's statutory role.

Officials' comments

In response to specific suggestions from submitters, officials propose that the goal be amended to make it more concise and show that energy efficiency and renewable energy are the means (i.e. the actions) to achieving the goal (i.e. energy productivity and emissions reductions).

To comply with section 10(2) of the Act, the NZEECS must state the Government's policies in relation to the promotion in New Zealand of energy efficiency, energy conservation, and the use of renewable sources of energy. Also, it must state:

- objectives to achieve these policies
- targets (which has to be measureable, reasonable, practical, and considered appropriate by the Minister of Energy and Resources) to achieve these policies and objectives, and
- means to achieve these policies, objectives and targets.

This means that the NZEECS has to clearly set out the linkages between these means, targets and objectives, and how they will contribute to the achievement of government policies. To show these linkages and how the NZEECS sits within the wider government policy context more clearly, officials recommend amending the text and adding two diagrams.

Officials also note that the objectives in the draft NZEECS needed to be clarified. For example, in the draft NZEECS, there was an objective for all market participants; officials recommend deleting that objective because some submitters found it confusing. The actions that 'market participants' could take to help achieve the goal and objectives of the NZEECS are covered by the 'cross-cutting actions' section. In addition, officials recommend clarifying that the NZEECS objective and actions for 'individuals' apply to individuals acting in collectives (e.g. households, marae) as well.

In terms of the level of ambition and specificity of the targets and actions in the draft NZEECS, each relevant government agency will also have more specific targets and initiatives documented in their statutory planning documents (e.g. the statement of intent). For example, EECA's Statement of Intent (four year cycle) and Statement of Performance Expectations (annual cycle) provide more specific targets that directly link to its work programmes.

Recommendations

1. Amend the goal of the NZEECS to focus on energy productivity and emissions reduction as outcomes, and shorten to make consistent with how the NZES and Business Growth Agenda goals are expressed.

2. Amend the text and add diagrams to more clearly set out the linkages between the goal, targets and actions, and the wider government context.

3. Amend the text to clarify that the NZEECS aligns with relevant Government Policy Statements and National Policy Statements, as required under the Act.

4. Delete the "market participants" objective in order to simplify the structure of the groups, and amend the text to clarify that the intent of the "market participants" group is picked up by the "cross-cutting actions" section.

5. Amend the text to clarify that the "individuals" group is intended to be inclusive of "Individuals, households and community institutions".

Minister's decision

The Minister of Energy and Resources agreed with officials' recommendations.

NZEECS targets

Summary of submissions

Fifty-two submissions commented on the targets stated in the draft NZEECS. Some submitters consider that the proposed industrial emissions intensity and electric vehicles (EV) targets are not ambitious enough or are inadequate, as they only reflect business-as-usual levels.

A number of submitters suggested alternative targets for inclusion in the NZEECS, such as:

- an economy-wide target for energy efficiency
- an absolute reduction target for industrial emissions
- transport-related targets beyond the EV target, ranging from a fuel efficiency target to a target for total transport energy use, and
- targets for insulation of buildings.

Some submitters commented that the renewable electricity target should be explicitly stated or highlighted in the NZEECS. A number of submitters also suggested amending this target by:

- introducing a target focusing on peak electricity demand
- expanding the target to encompass renewable energy, or
- setting a higher renewable electricity generation target.

Officials' comments

Level of ambition for targets

The targets in the NZEECS must meet the requirement under the Act that they are "measureable, reasonable and practicable". While the proposed industrial emissions intensity and electric vehicles (EV) targets have been developed on the basis of relatively conservative projections, these targets will meet this statutory requirement, as the actions outlined in the NZEECS (e.g. the Electric Vehicles (EVs) Programme and a new process heat action plan) will support the achievement of these targets.

In response to submitters' specific feedback that industrial emissions intensity target is not ambitious, MBIE does not consider that there is a sound basis for setting the target at a higher level. Unless the policy settings in relation to energy efficiency and renewable energy change substantively (beyond the actions outlined in the NZEECS) in the next five years, the industrial emissions intensity target should be set based on the central forecast (1.0 per cent decrease per annum), which has been estimated assuming no change to current policy settings. MBIE therefore only recommends a minor amendment to express the industrial emissions intensity target as achieving "at least" a 1.0 per cent improvement.

Alternative targets

Regarding the suggestion for an economy-wide energy efficiency target, such a target would not provide a clear signal about which sectors should be the priority areas for improving energy efficiency and the uptake of renewable energy. In contrast, the proposed targets in the draft NZEECS will clearly identify that process heat and transport are the priority areas for action, which addresses part of the rationale for replacing the NZEECS.

An emissions intensity target is preferable to an absolute emissions reduction target for a five-year timeframe because an emissions intensity target allows us to focus on growing our economy while at the same time producing less emissions per unit of output. Introducing a short-term absolute emissions reduction target could have an unintended consequence of slowing economic growth.

While there may be value in setting a complementary target for transport (e.g. focused on fuel economy), this needs to be considered alongside other priorities and policies within the Transport portfolio, which are broader than the NZEECS. Officials therefore recommend that submissions relating to the transport sector be referred to the Minister of Transport for his consideration.

Rental properties are the priority area for better insulation, as owners rather than renters make decisions on how well the rental properties concerned are insulated. With compulsory insulation requirements for rental properties being introduced through the latest amendments to the Residential Tenancies Act 1986, there is already a de facto target that all rental properties must meet those requirements.

Renewable electricity target

In line with submissions that the NZEECS should state the Government's existing 90 per cent renewable electricity target explicitly, officials recommend adding it as one of the formal targets in the NZEECS.

In the interests of clarity, officials also recommend removing more detailed references to the longer-term energy targets that the Government is developing, as those energy targets require further consideration and sit outside of the timeframe of the NZEECS.

Recommendations

6. Refer submitters' suggestions regarding transport targets to the Minister of Transport for his consideration.

7. Include the Government's existing 90 per cent renewable electricity target as one of the three official NZEECS targets, and amend the supporting NZEECS text.

8. Remove reference to the more aspirational, long-term energy targets that the Government is developing.

9. Express the industrial emissions intensity target as achieving "at least" one per cent per annum improvement over the period of the NZEECS.

Minister's decision

The Minister of Energy and Resources agreed with officials' recommendations.

Actions – Process heat

Summary of submissions

One of the key themes from submissions was reducing the reliance on coal for process heat, such as drying milk powder for export markets. While many submissions noted opportunities to use an alternative energy source, e.g. geothermal steam or wood energy, it was also noted that the certainty (or uncertainty) of supply of lower carbon fuels and alternative raw materials will impact on whether or not New Zealand can reduce emissions from process heat. Key variables noted include the availability, scale, economics and delivery distance of such fuels to established manufacturing sites.

There were also suggestions for more active government support in developing markets for alternative fuels and investing in efficiency.

Officials' comments

A process heat action plan (a new action in the NZEECS) will be developed by MBIE. This will support the achievement of the proposed industrial emissions intensity target. The development of this plan will include using evidence to understand whether there are market failures or barriers that are preventing increased efficiency and use of renewable energy for process heat.

As part of this, MBIE, in collaboration with EECA, will be leading work to improve data on the potential for mitigating greenhouse gas emissions from process heat, including the economics of shifting to a lower carbon fuel mix. This will inform the development of the process heat action plan.

At this stage, officials do not recommend including additional process heat actions in the NZEECS until the process heat action plan is developed. Officials will consider the process heat actions suggested by submitters when developing that plan.

To provide more detail on the potential for improving efficiency and emissions, officials recommend including a fuller description of process heat opportunities in the NZEEC.

Recommendations

10. Include a fuller description of process heat opportunities in the NZEECS, under the process heat priority area.

11. Officials will consider the process heat actions suggested by submitters when the process heat action plan is being developed under the NZEECS.

Minister's decision

The Minister of Energy and Resources agreed with officials' recommendations.

Actions – Transport

Summary of submissions

Almost half of the submissions (37 submissions) suggested specific transport actions to be included in the replacement NZEECS. Some of the suggested actions focused on increasing the uptake of electric vehicles (EVs), for example, through investment in infrastructure, tax breaks and procurement. Many went beyond this suggesting a need for more system-wide initiatives, such as:

- achieving a shift from private vehicle use towards low-emissions, energy-efficient transport modes (e.g. light rail, electric rail, buses and bikes, walking and cycling, car sharing)
- adopting a national approach to developing low-carbon and resilient heavy transport systems, rather than a regional approach to developing ports, coastal shipping and rail
- creating greater connectivity and integration across transport modes
- reducing the average age of vehicle fleet, and
- incentivising uptake of innovative technologies (e.g. EVs) and alternative fuels (e.g. biofuels, electricity).

Many submitters also commented that the replacement NZEECS should not focus only on one technology, e.g. EVs, as this could limit other equally efficient technologies. They suggested a range of other transport actions, which require central and local government's involvement. These related to three areas:

- Low carbon transport – incentives for, or investments in, low carbon, energy-efficient or active transport options, and related infrastructure.
- Fuel efficiency – vehicle fuel economy/efficiency/emissions standards for internal combustion engine (ICE) vehicles.
- Fuel diversity – programmes to increase fuel diversity, e.g. biofuel, biodiesel or converting timber biomass into transport fuel.

One submitter also noted that there should be clarity about the roles of central government and local government in influencing transport choices and infrastructure; legislative settings and funding models could be more clearly outlined.

Officials' comments

The submissions on transport actions traverse a range of policy initiatives that may warrant consideration in the future, and should therefore be referred to the Minister of Transport for his consideration. Robust cost-benefit analysis is required for developing specific transport policies. As the NZEECS is intended to provide strategic direction rather than include a full list of government energy efficiency and renewable initiatives for the 2017–2022 period, additional transport policy initiatives can be introduced in this period even if they are not stated explicitly in the NZEECS.

Some of the suggested actions relating to EVs are already being addressed by the Government's EVs Programme. For example, the New Zealand Transport Agency (NZTA) is providing guidance on the development of EV charging stations, and EECA's Low Emission Vehicles Contestable Fund is also co-funding the roll-out of charging stations.

The Government's plans, such as the Kiwirail Turnaround Plan and the Intelligent Transport System Action Plan 2014-18, already play a role in promoting the development of more intelligent and energy-efficient transport networks.

Regarding promoting alternative fuels and fuel diversity, Scion is in the process of developing a New Zealand Biofuels Roadmap, which aims to develop an action plan for developing large-scale production of liquid biofuels and encouraging the use of these fuels in New Zealand. This project will evaluate biofuel options specific to New Zealand in the period to 2050, and focuses on opportunities to use biofuels as substitutes for the four main liquid fuel types (petrol, diesel, jet fuel and marine fuel). Findings from the project are expected to be released by the end of 2017. Officials will consider these findings before advising on actions specific to the liquid biofuels sector.

Central government and local government both have important roles in influencing the future direction of the transport sector, and will continue to work together to develop a transport system that will contribute to achieving the Government's objectives and targets outlined in the NZEECS 2017–2022.

Recommendations

12. Refer submitters' suggestions for transport actions, including regulatory mechanisms for encouraging low-carbon transport options and fuel efficiency, to the Minister of Transport for consideration.

13. Amend the NZEECS to clarify the link between increasing the number of electric vehicles and reducing energy emissions.

14. Delete reference to EECA's freight transport programmes, which have been exited, based on the EECA programmes review[2].

15. Officials will consider the findings of Scion's New Zealand Biofuels Roadmap project, once it is finalised, before advising on any actions specific to the liquid biofuels sector.

Minister's decision

The Minister of Energy and Resources agreed with officials' recommendations.

[2] MBIE and EECA jointly undertook a review of EECA's programmes in 2016.

Actions – Electricity

Summary of submissions

Stimulating demand for renewable electricity and related technologies (e.g. batteries, solar photovoltaics (PV), and home management solutions) was a strong theme. A number of submissions noted the potential for electricity to substitute fossil fuels. On the other hand, efficient management of peak demand (both daily and seasonal) is seen as a key opportunity to lower electricity prices, delay investment in additional generation and decrease emissions (e.g. through the use of batteries).

Some submitters noted that more investment in renewable electricity will be needed to meet future demand, and highlighted a range of issues that they perceived could prevent New Zealand from achieving the 90 per cent renewable electricity target, including transmission grid capabilities, regulatory frameworks (such as transmission pricing) and a lack of supporting policy actions. However, submitters were not clear on what specific additional supporting policies they considered useful.

There were calls to support distributed generation, wind, batteries and solar PV, and further education on emerging technologies that would impact electricity use (e.g. EVs). Some submitters were in favour of additional incentives or more favourable regulatory conditions for small-scale renewable generation.

Officials' comments

There are a number of initiatives underway to ensure that New Zealand is well positioned to adapt to, and take advantage of, emerging technologies, such as the Smart Grid Forum, the Council of Energy Regulators and work led by electricity industry associations (e.g. the Electricity Networks Association). The Electricity Authority is currently reviewing distribution pricing (including for distributed generation) in the light of the implications of evolving technologies (including batteries, electric vehicles, solar panels and smart meters).

Under the NZEECS 2017–2022, EECA plays a key role in providing unbiased information to businesses and households to support good decision making, both in terms of the emissions and cost impacts from their actions and investments in energy management. Given the accelerating pace of technological advancements, it is particularly important to keep information up-to-date and relevant. An example of EECA's work in this area is the solar PV calculator, which is intended to give consumers impartial information on its benefits.

The NZEECS does not need to list all of these specific actions, but there is some value in better reflecting EECA's role in this area.

Recommendations

16. Include more specific detail on how EECA will continue to provide information and tools to consumers to support good decision making, and improve access to such information and tools.

17. Include an action under the "Businesses" section to clarify that EECA's minimum energy performance standards and labels for appliances, equipment and vehicles apply to businesses, as well as individuals, households and communities.

Minister's decision

The Minister of Energy and Resources agreed with officials' recommendations.

Actions – Energy performance of buildings

Summary of submissions

Fourteen submitters, mainly from energy efficiency organisations, community groups and health organisations, have suggested that the Warm Up New Zealand (WUNZ) programme should be extended beyond June 2018, or its scope should be broadened so that homeowners are also eligible. Some submitters noted that local insulation retrofit projects will be seriously hampered if they no longer have access to grants, and many homes will remain inadequately insulated. They believe "warm, dry and energy efficient homes" should be a priority area in the replacement NZEECS as it has measured co-benefits for health outcomes.

The need for a review of the Building Code was a theme raised by a number of submitters, along with calls for stronger government leadership to drive improvements to commercial buildings, noting the potential for cost effective energy gains.

Officials' comments

Home insulation

While the final tranche of WUNZ grant funding will end on 30 June 2018, officials note that all landlords will need to comply with the new insulation requirements for rental properties, as specified in the 2016 amendments to the Residential Tenancies Act 1986 (RTA) and associated regulations, by 1 July 2019.

The draft NZEECS included "warm, dry and energy efficient homes" as a priority under the electricity section, and included WUNZ: Healthy Homes as one of the actions for individuals. In addition, it is an existing priority in the Business Growth Agenda ("improve housing quality through insulation", Natural Resources Sector Area 7) and the NZES ("warm, dry, energy efficient homes", priority area 3).

Nevertheless, officials consider that the draft NZEECS could better articulate how "warm, dry, and energy efficient homes" continues to be a priority, and how its multiple benefits contribute to the Government's objectives.

Energy efficiency and building standards

The Building Code and associated regulations are reviewed periodically, but the timing of these reviews is determined by the Minister for Building and Construction.

The draft NZEECS emphasises the importance of government leadership in improving its own energy performance. This is consistent with the Government's priority to deliver better public services within tight financial constraints.

The Government Property Group (GPG), within MBIE, will support EECA and the New Zealand Green Building Council to work with public sector landlords to get regular NABERSNZ[3] ratings depending on size and rating classification. For new large commercial buildings, the NABERSNZ rating should achieve a 4 - 4.5 rating (with 6 being the maximum), as outlined in GPG's Government Building Performance Specification. EECA also works, or has worked, with over 60 public sector agencies, such as councils, district health boards and schools, through its existing Business programme.

[3] NABERSNZ is an independent tool for rating the energy efficiency of office buildings, backed by the Government.

The draft NZEECS can be improved by including more detail on what EECA, in collaboration with the GPG and its public sector business clients, will do to improve the performance of government-owned (or leased) commercial buildings.

Recommendations

18. More clearly articulate the link between the energy efficiency of homes and commercial buildings and the Government's objectives in the replacement NZEECS, and the measured benefits from improving insulation in New Zealand.

19. Amend the text to clarify that the Government will support continuous improvements to the energy performance of buildings through reviews of the energy efficiency provisions in the Building Code and by increasing energy efficiency performance requirements over time where cost-effective on a life-cycle cost basis.

20. Include more specific detail on how EECA will track and improve energy performance of commercial buildings, and include more specific information on how the Government will work to increase NABERSNZ ratings.

Minister's decision

The Minister of Energy and Resources agreed with officials' recommendations.

Actions – Public sector and cross-cutting

Summary of submissions

Some submitters suggested specific actions that the public sector can take to demonstrate leadership in adopting energy efficient technologies and behaviours and renewable energy. The suggested actions focused on the use of procurement and investment in energy management.

One of the key themes from submissions was that there needs to be more government leadership and funding, greater cross-government coordination and partnership with industry to promote energy efficiency and renewable energy. A number of submissions noted market barriers and failures as the main challenge, such as imperfect information, principal-agent problems (e.g. split incentives), bounded rationality and regulatory barriers.

Some submitters requested more ambition in the NZEECS in terms of how it will contribute to meeting New Zealand's climate change targets, for example, through including an absolute emissions reduction target.

Officials' comments

Government procurement and investment in energy management

There are already existing government procurement and energy management practices that aim to improve energy efficiency in the public sector, e.g. All-of-Government (AoG) Vehicles contracts relating to EVs, electricity and gas. Officials recommend adding some examples in the NZEECS of the work that MBIE's procurement teams are already doing which supports the intent of the NZEECS.

This would build on the supporting action that was in the draft NZEECS of increasing the number of public sector agencies that have NABERSNZ ratings and that are implementing building energy performance improvement projects.

Contribution of NZEECS to New Zealand's climate change targets

A successful New Zealand is one which can grow its economy while over time also reducing its emissions. New Zealand can do this through both making existing economic activity more efficient and reallocating resources from high to low emissions activity.

The NZEECS is focused on removing any barriers and providing appropriate incentives to support all New Zealanders to take action and make the best choices about the energy they use, and how they use it.

Understanding the contribution that energy can make to reducing emissions is a priority under the Government's climate change work. The focus under the NZEECS will be increasing alignment across issues (e.g. climate change and energy, transport and energy) to ensure that any actions are supporting progress on long-term targets.

Nevertheless, the NZEECS is just one part of New Zealand's response to climate change. Other government policy work, such as the review of the New Zealand Emissions Trading Scheme and the Productivity Commission's Inquiry into the Opportunities and Challenges of a Transition to a Lower Net Emissions Economy for New Zealand, will also support New Zealand's long-term transition to a low-emissions economy. Likewise, broader policy settings and government priorities will also have an impact on whether the objectives and targets under the NZEECS can be achieved. Officials therefore recommend adding additional text and

a diagram to clarify the broader context for the NZEECS and how it relates to climate change policy.

Recommendations

21. Amend the text to provide more information on the existing government actions in relation to energy management and procurement that aim to improve energy efficiency in the public sector.

22. Clarify how the NZEECS fits within the broader energy and climate change policy and regulatory context, and relevant Government priorities, including by adding a diagram.

Minister's decision

The Minister of Energy and Resources agreed with officials' recommendations.

Actions – Data and research

Summary of submissions

Forty-two submitters responded on how we can ensure that energy data and research generates knowledge and understanding that can help to unlock our energy productivity and renewable energy potential.

Key themes in support of doing more to improve energy knowledge were:

- improving the availability, level of detail and format of data and analysis (e.g. supplementing existing reports with insights from overseas
- addressing gaps in existing reporting and data collection (e.g. more granular regional data, more system-wide, supply chain data, monitoring co-benefits of retrofitting insulation, voluntary reporting of greenhouse gas emissions)
- opportunities to work more closely with businesses and associations, to make use of existing industry data and expertise, and align research investment
- more public evaluation of government actions, and monitoring progress under the NZEECS, and
- increased funding for research, targeted at the energy sector (e.g. bioenergy, electric vehicles, waste) and carbon reduction solutions.

A small number of submissions focused on the need to set clear, meaningful targets as a starting point for any investment and analysis. Three submissions highlighted a need to increase alignment across issues (e.g. climate change and energy), given the cross-sector, multi-stakeholder nature of potential solutions under the NZEECS. For example, the electrification of industrial process heat will likely need research and development of process heat technologies, as well as increased electricity transmission, distribution and possibly innovative electricity storage technologies.

One of the strongest themes was around use of evaluation and monitoring. This was seen as fundamental to "the development of more robust Government policies, and enabling businesses and consumers to make more informed investment and purchasing decisions".

Officials' comments

As set out in the NZEECS, ensuring that energy data and research support the Government's overall objectives and targets continues to be a priority. One of the actions that EECA will undertake to support the delivery of the NZEECS is improving its monitoring and evaluation functions, in response to the findings of the programmes review. EECA's new Statement of Intent from 2018 will also include specific measures to track progress under the NZEECS. This will be supported by existing (and new) data and analysis published by MBIE, the Electricity Authority (EA), Statistics New Zealand, the Ministry of Transport (MoT) and the Gas Industry Company.

As part of addressing gaps in existing reporting and data collection, MBIE will be leading work under the NZEECS to improve data on the emissions mitigation potential in the process heat sector, including the economics of shifting to a lower carbon fuel mix. This will underpin subsequent work with EECA, and broader industry stakeholders, to better understand the

potential opportunities to improve energy efficiency and reduce emissions from process heat – a priority area under the NZEECS.

Recommendations

23. Note that EECA will continue to report on progress on actions under the NZEECS in its public statutory documents.

24. Include more detail on what the Government is doing to improve its understanding of the energy efficiency and emissions reduction potential of process heat.

Minister's decision

The Minister of Energy and Resources agreed with officials' recommendations.

Summary of recommendations and the Minister's decision

As a result of the submissions, officials recommended that the Minister of Energy and Resources make the following changes to the draft NZEECS:

Responding to general feedback on the draft

1. **Amend** the goal of the NZEECS to focus on energy productivity and emissions reduction as outcomes, and shorten it to be consistent with how the NZES and Business Growth Agenda targets are expressed.
2. **Amend** the text and add diagrams to more clearly set out the linkages between the goal, targets and actions, and the wider government context.
3. **Amend** the text to clarify that the NZEECS aligns with relevant Government Policy Statements and National Policy Statements, as required under the Act.
4. **Delete** the "market participants" objective in order to simplify the structure of the groups, and amend the text to clarify that the intent of the "market participants" group is covered by the "cross-cutting actions" section.
5. **Amend** the text to clarify that the "individuals" group is intended to be inclusive of "Individuals, households and community institutions".

Relating to targets

6. **Refer** submitters' suggestions regarding transport targets to the Minister of Transport for his consideration.
7. **Include** the Government's existing 90 per cent renewable electricity target as one of the three official NZEECS targets, and amend the supporting NZEECS text.
8. **Remove** reference to the more aspirational, long-term energy targets that the Government is developing.
9. **Express** the industrial emissions intensity target as achieving "at least" one per cent per annum improvement over the period of the NZEECS.

Actions – Process heat

10. **Include** a fuller description of process heat opportunities in the NZEECS, under the process heat priority area.
11. **Note** that officials will consider the process heat actions suggested by submitters when the process heat action plan is being developed under the NZEECS.

Actions – Transport

12. **Refer** submitters' suggestions for transport actions, including regulatory mechanisms for encouraging low-carbon transport options and fuel efficiency, to the Minister of Transport for consideration.
13. **Amend** the NZEECS to clarify the link between increasing the number of electric vehicles and reducing energy emissions.
14. **Delete** reference to EECA's freight transport programmes, which have been exited, based on the programme reviews.

15. **Note** that officials will consider the findings of Scion's New Zealand Biofuels Roadmap project, once it is finalised, before advising on any actions specific to the liquid biofuels sector.

Actions – Electricity

16. **Include** more specific detail on how EECA will continue to provide information and tools to consumers to support good decision making, and improve access to such information and tools.

17. **Include** an action under the "Businesses" section to clarify that EECA's minimum energy performance standards and labels for appliances, equipment and vehicles apply to businesses, as well as individuals, households and communities.

Actions – Energy performance of buildings

18. **Agree** to more clearly articulate the link between the energy efficiency of homes and commercial buildings and the Government's objectives in the replacement NZEECS, and the measured benefits from improving insulation in New Zealand.

19. **Amend** the text to clarify that the Government will support continuous improvements to the energy performance of buildings through reviews of the energy efficiency provisions in the Building Code and by increasing energy efficiency performance requirements over time where cost-effective on a life-cycle cost basis.

20. **Agree** to include more specific detail on how EECA and the Government Property Group (GPG) within MBIE will track and improve energy performance of commercial buildings, and include more specific information on how the Government will work to increase NABERSNZ ratings.

Actions – Public sector and cross-cutting

21. **Amend** the text to provide more information on the existing government actions in relation to energy management and procurement rules that aim to improve energy efficiency in the public sector.

22. **Clarify** how the NZEECS fits within the broader energy and climate change policy and regulatory context, and relevant Government priorities, including by adding a diagram.

Actions – Data and research

23. **Note** that EECA will continue to report on progress on actions under the NZEECS in its public statutory documents.

24. **Agree** to include more detail on what the Government is doing to improve its understanding of the energy efficiency and emissions reduction potential of process heat.

The Minister of Energy and Resources agreed to incorporate all the officials' recommendations into the final NZEECS.

Annex 1: List of submitters to draft replacement NZEECS

Number	Submitter
0001	David Syme, Meridian Energy Ltd
0002	Peter Olorenshaw Architect
0003	Margriet Geesink, Northland District Health Board
0004	Michael Smit
0005	Michael Delceg
0006	National Road Carriers (Inc)
0007	Environmental Defence Society
0008	Dr Hugh Barr
0009	MEUG
0010	Green Fuels NZ Ltd
0011	Scion Research
0012	Canterbury District Health Board
0013	Penny McGowan
0014	Z Energy Ltd
0015	First Gas Ltd
0016	Community Energy Action Charitable Trust
0017	Auckland Council
0018	University of Canterbury
0019	John Lawson
0020	David Michael Wigley
0021	New Zealand Geothermal Association
0022	Tom Taylor
0023	Regulatory Institute, Brussels
0024	Korimako
0025	Te Hā o Kawatiri
0026	Mercury
0027	Seamus Maher
0028	University of Otago
0029	Dr Clair Mills, Northland District Health Board
0030	Foundation North
0031	Straterra Inc
0032	Motor Industry Association
0033	Blueskin Resilient Communities Trust
0034	Institute of Public Works Engineering Australasia (IPWEA) - NZ Chapter
0035	Energy Management Association of New Zealand
0036	Electricity Engineers' Association (EEA)
0037	The Royal New Zealand College of General Practitioners
0038	Strategic Energy Ltd
0039	Trustpower
0040	Waikato Regional Council
0041	Alannah MacShane, Meridian Energy Ltd

0042	Anonymous
0043	WEL Energy Trust
0044	NERI
0045	LPG Association of NZ
0046	GBC Winstone (a Division of Fletcher Concrete and Infrastructure Ltd)
0047	Christine Ellen Henderson
0048	Wise Response Society Inc
0049	Healthy West Coast
0050	New Zealand College of Public Health Medicine
0051	Oji Fibre Solutions
0052	New Zealand green Building Council
0053	The Sustainable Energy Forum Inc
0054	Hilltration Ltd
0055	Community Energy Network
0056	Vector Limited
0057	Independent Electricity Generators Association
0058	Pioneer Energy
0059	Transpower New Zealand Ltd
0060	Fonterra Co-operative Group Ltd
0061	Christchurch City Council
0062	Public Health Association of New Zealand
0063	Electric Power Engineering Centre, University of Canterbury
0064	Venture Southland
0065	Otago Regional Council
0066	Petroleum Exploration and Production Association of New Zealand
0067	Bioenergy Association
0068	Morgan Foundation
0069	New Zealand Wind Energy Association
0070	BusinessNZ and Sustainable Business Council
0071	Electricity Retailers' Association of New Zealand
0072	Kiwirail
0073	Wood Processors & Manufacturers Association of New Zealand
0074	Jeanette Fitzsimons
0075	Te Rūnanga o Ngāi Tahu
0076	Malcolm Harbrow
0077	He Kainga Oranga, University of Otago
0078	Greater Wellington Regional Council