

# Appendix 1



**Submission from the Wellington City Council on the draft New Zealand Energy Strategy and draft New Zealand Energy Efficiency and Conservation Strategy**

**Submission to: Ministry for Economic Development**

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## 1. Introduction

The Wellington City Council ('the Council') welcomes the opportunity to comment on the draft New Zealand Energy Strategy (NZES) and the draft New Zealand Energy Efficiency and Conservation Strategy (NZECS). The submission below will cover both strategies together given the strong overlaps and linkages.

The Council's submission is guided by the outcomes, priorities and advocacy actions in its 2009/19 Long Term Council Community Plan and its 2010 Climate Change Action Plan.

## 2. Summary

The Council supports some of the components of the draft NZES and NZECS such as maintaining the target of 90 percent of electricity generation from renewable sources by 2025 and growing New Zealand's biomass-to-energy capabilities.

However, the Council considers that the strategies do not provide a coherent long-term strategy to ensure New Zealand's energy future. Nor do the strategies signal a focus towards a clean energy future (contrary to the position taken by most other OECD countries). The key areas of concern of the Council are:

- **Inconsistent priorities** – The key priority of the draft NZES – to maximise the development of oil, coal and gas resources –contradicts Government policy to reduce greenhouse gas emissions, to protect New Zealand's brand and to prepare for a world with limited oil supply and correspondingly high oil prices.
- **Missed opportunities with clean technology** - The opportunities to maximise New Zealand's competitive advantage by developing renewable energy resources and other clean technology industries are under-valued in the draft NZES.
- **Lack of detail on climate change targets** – The draft NZES identifies where New Zealand's energy-related greenhouse gas emissions come from but it should also clearly show how energy policies will contribute towards New Zealand's emission reduction targets for 2020 and 2050.
- **Short-term approach and lack of implementation structure** – There is little discussion of the pathways and mechanisms by which New Zealand will achieve the "desirable long-term" outcomes in the draft NZES and NZECS. Most targets refer to 2015 and given the risks with energy security and climate change, the Council believes New Zealand's energy strategy needs to have a long-term approach.
- **Lack of certainty of existing programmes** – The draft NZES and draft NZECS provide no clarity on the medium and long-term future of several clean-energy programmes (e.g. marine deployment fund, bio-

fuel grants programme, electric vehicle road-user exemptions) indicating that these will not be progressed. The Council believes the strategies present an ideal opportunity to clarify the Government's long-term position on these programmes.

- **Role of regulation and incentives** – The draft strategy should have more emphasis on using the Building Code to set higher standards for energy performance in buildings where there is a strong intervention logic for such an approach. There are several examples where regulation has proven to be a more cost-effective solution than market forces (e.g. the costs of the *Warm Up New Zealand* scheme could have been avoided if building regulation required adequate insulation much earlier than 2000). It should also seek to establish electricity and natural gas markets that require and/or reward demand-side initiatives to reduce electricity and gas consumption.
- **Too much focus on fossil fuels** – The Council acknowledges that fossil fuels are critical to New Zealand's energy security and supply in the short and medium-term. There is logic in understanding the nature of New Zealand's oil and gas reserves more precisely. However, the draft NZES goes further to include "development and full utilisation of New Zealand petroleum reserves". The Council considers that the draft strategy should identify pathways for New Zealand to reduce fossil fuel dependency in order to manage increasing fossil-fuel energy costs, energy security risks and carbon costs.
- **Dealing with risk** – The draft strategy briefly alludes to oil security risks as well as environmental management risks. Given New Zealand's size and isolation, the Government needs a stronger plan to evaluate and manage the risk of limited oil supply and price shocks on New Zealand. The draft NZES is also silent on how risks of oil spills will be managed with increased development of New Zealand's under-sea oil deposits.
- **Expanding opportunities with local government** – The Council wants to increase funding, research and policy-development partnerships with the Government. The NZES and NZEECS should clearly state how the Government wants to work with local government on energy issues in the short to long-term.

### 3. Discussion

The Council supports some components of the draft NZES and NZEECS, which include:

- maintaining the target of 90 percent of electricity generation from renewable sources by 2025
- growing New Zealand's biomass-to-energy capabilities
- ensuring New Zealand's energy is affordable
- helping with consumer awareness

- support for business energy efficiency and the Warm Up New Zealand programme
- extending minimum energy performance standards for products
- development of building performance rating tools.

The Council believes that the key priority of the draft NZES (to develop petroleum and mineral fuel resources) conflicts directly with other Government policies and stated priorities in the draft NZES. It also seems to run against the growing international consensus of preparing for a world that is less dependent on fossil fuels.

The following sections provide more detailed comments on the Council's concerns and recommendations for the draft NZES and draft NZEECS.

### **3.1 Achieving emissions reduction targets for 2020 and 2050**

Energy and greenhouse gas emissions are closely linked. The Council believes the draft NZES needs to provide a more comprehensive analysis of the energy-related greenhouse gas emissions in the medium and long-term under different scenarios.

The Council recommends that the draft NZES should provide clear details of how the Government plans to achieve agreed emission reduction targets in the energy sector. There is no information in the draft NZES about how specific energy policies will be linked to New Zealand's emissions reduction targets.

The draft NZES discusses developing the concept of converting coal to liquid fuels (linked with carbon capture and storage technology, which is as yet unproven on a commercial scale) in order to address oil security issues. The Council believes it would be extremely difficult for the Government to achieve its stated emissions reduction targets if coal was converted to liquid fuels for the transport sector. In a global context, pursuing coal to liquid transport fuels would be a profoundly retrograde step in terms of meeting the global challenge of climate change.

The Council strongly recommends that the draft NZES exclude the conversion of coal to liquid fuels as an option. Instead, the Council supports development of other transport alternatives such as bio-fuels, electric powered vehicles, increased public transport in urban centres and smarter urban development policies.

### **3.2 Building on New Zealand's 'clean, green' image**

The Council believes that New Zealand's economy and its image could be further developed with a strategy that leads to development in renewable energy and switches to clean-technology. The Council agrees with the draft NZES statement that "New Zealand has an enviable and proud reputation as a 'clean, green' country."

New Zealand's reputation is partially linked with its strengths in renewable energy. Any perceptions that New Zealand was moving away from its clean, renewable focus towards one of fossil fuel extraction could have consequences to industries that rely on the '100% Pure' branding.

In section 3.3, the Council outlines how building New Zealand's clean technology focus can both create economic prosperity and strengthen New Zealand's brand.

### **3.3 Moving towards a clean energy future**

Global investment in clean energy is increasing rapidly. The Council believes New Zealand's top priority should be positioning itself as a "centre of excellence" in clean energy technologies. New Zealand's natural strengths – resources in wind, geothermal, marine and bio-mass energy – and its research and development capabilities present ideal conditions to capitalise on economic development opportunities in clean energy.

The Council believes the draft NZES will increase dependency and investment in fossil fuels counteracting the investment and policy behind the Emissions Trading Scheme. Fossil fuels are vital to New Zealand's economy and have a role in the short to medium-term.

However, a strategy that leads to reduced fossil fuel dependence will help to manage long-term risks in relation to growing energy demand, the introduction of a price on carbon and increasing costs of fossil fuel production.

The Council supports the draft NZES target that 90 percent of New Zealand's electricity supply comes from renewable sources. This will help the country, New Zealand businesses and households prepare for higher costs of fossil fuels and growing carbon prices. The Council believes the NZES should clearly outline how this target will be achieved and whether New Zealand is currently tracking towards the target.

The Council is looking at how to increase the competitiveness of the city and the region in order to attract people to live, work and do business. New Zealand's competitive advantage partially relates to its environmental image. The Council believes New Zealand should look to build on its image and identify niche clean energy opportunities (to market in developed and developing countries). The Council recommends that Government consider supporting the development of the following clean energy technologies in New Zealand:

- continued development of wind and geo-thermal resources
- research and development of marine energy technologies
- development of wood fuel (residential and commercial) and second generation bio-fuels

- increasing New Zealand's use of electric vehicles and electric-powered public transport while growing New Zealand's renewable energy profile.

### **3.4 Managing oil security risks**

The draft NZES correctly identifies that “New Zealand is vulnerable to increases in oil prices and external disruptions to oil supply.”

Despite the above acknowledgement, however, the draft NZES fails to provide meaningful analysis of the oil security risks. It also does not provide a proposed pathway for how New Zealand will manage those risks. Instead, the draft NZES focuses on a passive response where price-signals will drive changing behaviour of New Zealand consumers. The Council believes this fails to acknowledge the important role of evaluation, planning and active risk mitigation.

The Council recommends that the draft NZES provide clearer objectives and targets for transitioning toward a transport network and urban forms that reduce reliance on oil. Clear objectives could include:

- continuing to provide grants for research and development of bio-fuels (including bio-gas) till 2020
- higher fuel efficiency standards for new and used vehicle imports
- investigating road-pricing or congestion-charging instruments in cooperation with urban centres
- supporting the logistics and supply of bio-fuels to consumers
- incentives to stimulate the uptake of electric vehicles
- developing the electric transport options in parallel with the continued growth in New Zealand's renewable electricity resources
- utilisation of electric vehicles and bio-fuels by Government agencies
- increased priority and funding support for public transport infrastructure in urban centres.

### **3.5 Risks from undersea oil extraction**

The Council notes that the section on environmental responsibility in the draft NZES is silent in relation to risks from undersea oil extraction.

Recent events in the Gulf of Mexico have highlighted that the oil industry cannot demonstrate its capacity to properly manage the risks and consequences of undersea oil extraction activities (risks that were previously thought to be under control).

The Council recommends that the section on environmental responsibility should outline how risks that were improperly managed in the Gulf of Mexico

will be managed differently and more effectively in New Zealand. Without more transparent and detailed commitment to manage the risks from undersea oil extraction, the Council does not support the draft NZES proposal for developing New Zealand's potential undersea oil reserves. The risks that oil spills present to New Zealand's economy, ecosystems and communities are too great to allow drilling activities without proven and reliable safeguards.

### **3.6 Short-term approach and lack of implementation detail**

The Council believes the draft NZES and NZEECS adopt a short-term approach when a long-term, strategic approach is required given the associated risks with energy security and climate change. Most targets in the NZEECS refer to 2015 (with the exception of the 90 percent renewable target by 2025).

The draft NZES and draft NZEECS should provide more clarity on the implementation details, pathways and milestones that the Government intends to achieve. There is little discussion of the mechanism for New Zealand to achieve the "desirable long-term" outcomes contained in the draft NZES and NZEECS.

In addition, the draft NZES and draft NZEECS give little clarity on the future of several clean-energy programmes (e.g. marine deployment fund, bio-fuel grants programme, electric vehicle road-user exemptions) indicating that these will not be progressed or expanded up beyond their previously stated end-dates. The Council recommends that the Government clarify the future of existing programmes in the NZES and NZEECS.

### **3.7 Role of regulation in building**

The Council acknowledges that recent changes to the Building Code will deliver higher energy efficiency standards. It also notes that the draft NZEECS anticipates "further incremental improvements will be required to ensure the (Building) Code and relevant standards keep pace."

#### *3.7.1 Suggestions for new buildings*

The Council recommends the Government identify those changes to the Building Code (to be made in the short term) that will deliver better energy efficiency performance for new buildings and upgrades where there is a strong intervention logic for such an approach. Other countries are using building regulation to reduce energy demand from buildings to a higher standard and New Zealand should follow this trend more ambitiously.

The Council recommends that energy performance standards for new buildings should be reviewed and progressively increased, where this is economically rational, every three years to ensure continual innovation in building design and utilisation of energy efficient technologies.

#### *3.7.2 Suggestions for existing buildings and rating tools*

The Council also raises concern over the regulation of building with regard to existing buildings. The Building Act has only minor mandatory requirements for upgrade (Earthquake prone Buildings) and non-residential buildings are subject to improvement for means of escape from fire and access for persons with disabilities.

The Building Act does not currently require existing buildings to be upgraded for energy efficiency. Overseas Governments have identified that increased energy efficiency requirements for new construction is not enough to address the excessive energy use of existing properties.

The construction industry has shown a significant trend towards renovation and the installation of heating appliances to existing properties. The majority of these projects such as heat pump installation and other forms of heating do not consider the buildings total energy use after the work and minimal attempt is being made to reduce energy use for the complete building. Building Research Association of New Zealand (BRANZ) research has shown that the current culture of increased in-home temperature comfort is coming at a significant cost.

The Council recommends that the Government consider the impact of such trends and initially provide better guidance through the Department of Building and Housing on how to improve existing properties. This may eventually lead to regulation that could, over time, improve the energy use of existing properties.

The Council supports the Government's recent work on developing home rating tools and building rating tools. The Council would support a voluntary rating tool but the Government and stakeholders would need to develop effective methods to ensure adequate uptake from the market.

### **3.8 Demand side management**

The Council recommends that the draft NZES and NZEECS should place a higher priority on regulation and incentives in order to manage growing energy demand where there is a strong intervention logic for such an approach. Managing energy demand can be more cost-effective mechanism than continually increasing supply and it should therefore have a higher priority. The Council recommends the draft NZES should prioritise the consideration of the following:

- increased incentives to fund a wider range of demand-side retrofit options for households (e.g. lighting, shower-heads, cylinder wraps)
- increased funding support for auditing businesses and incentives for energy efficient interventions
- regulations requiring energy retailers (or suppliers) to commit funding towards demand-side measures
- regulations establishing feed-in tariffs for small-scale renewable energy that can be phased-out as the technologies grow in affordability.

The Council supports the Government's work on requiring Minimum Energy Performance Standards (MEPS) and creating incentives to retire obsolete products. The Council believes there should be more analysis of and clarity around which energy efficient products will be prioritised and which products will be retired.

The Council supports the draft NZEECS in providing continued funding towards energy research and development funding "to develop renewable energy and demand-side management technologies." This funding should, however, be linked to practical and achievable objectives for energy efficiency and demand management.

### **3.9 Stronger linkages with local government**

The Council believes the draft NZES and draft NZEECS do not provide clear guidance on how the Government plans to work with local government. Local government has been a critical stakeholder in implementing several measures of the Government's existing Energy Strategy including (but not limited to) the following:

- enabling renewable energy development through encouraging planning rules and policies through the resource management process
- investment in public transport, walking and cycling infrastructure and travel demand measures
- contributing third party funding towards Warm Up New Zealand programmes, which includes using rating tools to help households afford insulation or heating retrofits
- setting high standards of energy efficiency and building design for local government buildings and assets.

The Council will be interested in working with the Government on the following projects over the coming two years:

- supporting an extension of the Warm Up New Zealand programme targeting efficient lighting, low-flow shower-heads and cylinder wraps and other low-cost household measures<sup>1</sup>
- support for energy efficiency programmes targeting small businesses that deliver measurable reductions in energy
- identifying and supporting the research and development of clean energy technologies, namely marine energy research, waste-to-energy technologies, electric transport technologies and
- support for electric vehicle pilots and bio-fuel pilots.

## **4. Conclusion**

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<sup>1</sup> This is especially important to help households deal with higher prices from the Emissions Trading Scheme.

Although the Council supports some components of the draft NZES and draft NZEECS, the Council believes the current draft strategy is somewhat short-sighted and does not address fundamental issues such as managing oil security risks, reducing energy-related emissions and promoting alternative, clean-energy solutions that reduce reliance on fossil fuels. The Council has identified areas it considers to be of concern and made several recommendations to improve the effectiveness of the draft NZES and NZEECS.

On behalf of Wellington City Council

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