

**Draft Energy Strategies**  
**Ministry of Economic Development**  
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To the Ministry of Economic Development,

**Submission on the Draft New Zealand Energy Strategy (NZES) and the Draft New Zealand Energy Efficiency and Conservation Strategy (NZECS)**

## **Introduction**

### **Summary of recommendations**

- 1. That the draft NZES is rejected and the current Strategy remains in force.***
- 2. That the order of the four priorities in the NZES is reversed in any subsequent Strategy .***
- 3. That “Develop petroleum and mineral fuel resources” priority is deleted altogether from the NZES.***
- 4. That the proposed changes to the NZECS are rejected and the current Strategy remains in force.***
- 5. That the current NZECS its objectives, targets and actions continue to be actioned until such time as any revised NZECS details the actions necessary to achieve the objectives and targets .***

### **Forest & Bird**

Forest & Bird (The Royal Forest & Bird Protection Society of New Zealand Inc.) is New Zealand’s largest independent conservation organisation, representing around 68,000 members and supporters. It was founded in 1923 and its constitutional purpose is to:

To take all reasonable steps within the power of the Society for the preservation and protection of the indigenous flora and fauna and natural features of New Zealand, for the benefit of the public including future generations.

### **The plight of biodiversity**

New Zealand's biodiversity is in crisis and we continue to lose natural features and wild places. For example, one in 13 New Zealand plant species are threatened with extinction;<sup>1</sup> 153 birds are threatened, with 50 further deemed data-deficient;<sup>2</sup> and two-thirds of native freshwater fish species are threatened.<sup>3</sup> The New Zealand Government's biodiversity website summarises the situation:<sup>4</sup>

New Zealand has a unique native biodiversity, but it is in serious decline. Left alone, these bird-dominated islands would have continued to depart from the evolutionary mainstream, but of course, this was not to be. Instead, the arrival of humans had a major impact. ...

Although New Zealand was one of the last places on earth to be settled by humans, it has one of the worst records of native biodiversity loss. Fire, land clearance, overexploitation of resources, and introduced plants and animals have had a cumulative effect on native biodiversity. As a result dozens of species have become extinct and an increasing number are now threatened with extinction.

Extinctions include:

- \* 32 per cent of endemic land and freshwater birds...
- \* three of 64 reptile species
- \* possibly 11 of the 2300 known vascular plants

About 800 of New Zealand's known animal, plant and fungi species and 200 subspecies are considered threatened. It is likely that many still unknown species are also threatened.

The pressures on biodiversity have taken three forms:

- \* Hunting – hunting, fishing and gathering.
- \* Habitat destruction – removing forests, draining wetlands, fragmenting and degrading ecosystems.
- \* Pests and weeds – introduced organisms that prey on, or compete with, native species, or degrade their habitat.

The extraction and generation of energy has played a major role in past habitat destruction and it continues to be a contributor to biodiversity decline. Forest & Bird is therefore active in many energy issues. This includes general public advocacy, involvement in RMA processes, and occasionally in litigation. We are also engaged in practical work with energy companies and energy consumers to contribute to the mitigation, protection and restoration of New Zealand's biodiversity and the reduction in energy demand that adds to the pressure on resources and the environment.

Some energy generation activities and proposals have such an impact that we oppose them outright; while others are less impactful and we work constructively to ensure that biodiversity is enhanced rather than reduced by them. We strongly advocate for energy efficiency and conservation to address the key issue of energy demand that leads to pressure for environmentally-damaging energy proposals.

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<sup>1</sup> de Lange, Peter et al, *Threatened Plants of New Zealand*, Canterbury University Press, 2010.

<sup>2</sup> <http://www.mfe.govt.nz/environmental-reporting/biodiversity/threatened-species.html>

<sup>3</sup> <http://www.stuff.co.nz/dominion-post/news/features/greenzone/2396492/Native-fish-swim-for-their-lives>

<sup>4</sup> <https://www.biodiversity.govt.nz/picture/biodiversity/state/index.html>

## The impact of energy supply and demand on biodiversity

We have a particular concern with four areas that have high impact of New Zealand's unique plants, animals and natural features:

1. The **direct impact on biodiversity and conservation land from mining**. Mining for coal has a significant impact, both from open-cast mines like Stockton that completely transform an entire landscape, but also from underground mining. We advocate that large-scale mining of fossil fuels on public conservation land and ecologically significant Crown land should cease.
2. The **direct impact of hydro-electric dams on wild rivers**. Many of New Zealand's wild rivers have already been severely modified for hydro-electric development, and the remaining wild rivers are too precious for biodiversity and the economy to dam. Some hydro generation options can be acceptable – such as the HDL scheme on the Stockton Plateau – but most have an unacceptable impact on biodiversity and wild rivers landscapes. We advocate that no more wild rivers should be dammed for hydro-electricity.
3. The **direct impact of marine mining in particular, but also some inappropriate marine energy generation on marine ecosystems and the seafloor**. There should be a moratorium on marine mining until there is a robust regulatory regime in place for the EEZ and continental shelf that is based on sustainable management. In addition, marine areas suitable for conservation protection have in the main not been identified and protected, particularly beyond the territorial sea, and until this is done, any development proposals in the EEZ should follow a spatial and strategic environmental assessment of protection requirements to meet the New Zealand Biodiversity Strategy goals.
4. The **indirect impact of fossil fuel use on biodiversity through climate change**. The continued extraction and use of fossil fuels such as oil, gas and coal in energy generation (whether electricity, transport or direct heat) contributes to climate change. Climate change will have a massive impact on New Zealand's unique indigenous biodiversity, including the alternation of marine environments and ecosystems, that can only be mitigated by drastically reducing our greenhouse gas emissions now. Adaption will be impossible for many species and ecosystems.

## New Zealand's strategic direction on energy

The combination of these four issues leads us to a view that New Zealand's energy future must contain these essential elements:

1. A swift transition to a low-carbon economy
2. An analysis of the limits of growth, both in terms of declining oil supply and in renewable energy opportunities, and a strategy that plans for these
3. A rapid reduction in the extraction of fossil fuels, particularly on conservation land and in fragile marine environments
4. A focus on energy efficiency and conservation, achieving demand reduction in both intensity and real terms
5. Where increased supply is required after the above have been planned for, new energy supply sources should focus on developing low-impact renewable energy from geothermal, wind, biomass/biofuel and appropriate marine technology – within a strong regulatory

framework that includes conservation protection and environmental management. There should be an end to the damming of wild rivers and coal-fired power stations.

There is no question that New Zealand requires energy sources to power our economy and society. Some of New Zealand's current energy sources are not sustainable due to their depletion, emissions or environmental impact – and the document acknowledges that. Also, demand for more energy continues to grow, requiring a strategic approach to both demand management in the NZEECS and supply choices in the NZES. The challenge New Zealand faces is to transition our energy system from fossil-fuel sources and other high-environmental impact sources such as hydro-dams, to a smart and clean system with emissions, a focus on low-impact renewable and smart demand management. Accepting that accelerated economic growth is a Government priority, the Government's challenge is to decouple energy growth and emissions intensity from economic growth.

The general requirement of a Strategy is to assess the context described above and make strategic choices. The NZEECS does this to some extent, and we discuss the specifics below. However, the NZES does not. The NZES attempts to have it all ways at once, whereas a Strategy needs to make choices. The NZES has a priority focus on developing resources, and within that the focus is on petroleum and mineral fuel – coal, oil and gas. This flies in the face of the challenge outlined above, and is utterly incompatible with ALL the other priorities of the NZES and NZEECS.

While the current energy strategies published in 2007 began to move in the right direction, the draft energy strategies being consulted on at present are a complete reversal. This direction is both irresponsible and unsustainable, both for New Zealand's environment and for its economy. It also threatens New Zealand's most important economic advantage, our clean-green branding.

Forest & Bird therefore recommend that both energy strategies are rejected and that the current strategies remain in force.

## **The New Zealand Energy Strategy**

The New Zealand Energy Strategy is a non-statutory document. The current Strategy is called *Powering Our Future: Towards a sustainable low emissions energy system* and was published in October 2007. The Foreword described the Strategy as a "package of initiatives... to advance sustainability and economic transformation, and to help New Zealand respond to climate change".

The proposed NZES is a significant departure from the current Strategy, both in form and substance. The Strategy's vision and goals are too broad and contradictory, and its objectives and targets are ambiguous, non-specific and not time-bound. In substance, the proposed Strategy changes direction completely to an unsustainable growth and hinders rather than helps us respond to climate change. Its focus is reflected in the title "Developing our energy potential" with a priority focus on unsustainable development of fossil-fuel energy resources, inadequate demand management, and weak environmental protection objectives.

We reject the priority implied by the order of the priorities in the draft Strategy. They should be reversed so environmental responsibility is paramount; followed by efficient use, and secure and affordable energy; with sustainable resource use (not including developing petroleum and mineral fuel resources) following the others in order of priority.

### **Priority: Develop resources**

We completely reject the first area of focus, to “Develop petroleum and mineral fuel resources”. It is inappropriate to expand the extraction and use of fossil fuels at a time when climate change threatens biodiversity. The development of mineral fuels and petroleum both on land and at sea has a large direct impact on biodiversity and natural features and is not sustainable.

We support the development of some renewable energy resources and embracing new energy technologies, but only within the context outlined above, including the limits of growth, a focus on demand management, and within robust conservation and environmental regulatory frameworks. These frameworks are currently incomplete, particularly at sea, and strengthening them should be the first priority.

### **Priority: Secure and affordable energy**

We support greater strategic planning in electricity supply to ensure that the lowest environmental impact supply options are developed first, and high impact options are not developed. The current competitive model is leading to perverse outcomes whereby one generator, Meridian, is proposing a hydro-dam on one of New Zealand’s most precious wild rivers (Mokihinui) while at the same time appealing a neighbouring proposal for a hydro-scheme (HDL’s Stockton hydro scheme) that would have many environmental benefits including significantly enhancing the water quality of the Ngakawau River.

We reject the idea that oil security and transport can be achieved by extracting more oil domestically or converting lignite to diesel. We also reject the reliance on Carbon Capture and Storage technology, which has a high risk of failure as well as high cost. Instead, New Zealand should be focused on adapting our economy, and transport in particular, to be much less dependent on oil. Critical is much more investment in public transport over investment in roading. Consumer choices cannot be relied on to drive the necessary reduction in reliance on oil – consumer options are always constrained by decisions of Government and infrastructure provided. Strategic leadership is required.

Reliable electricity supply is best achieved through a focus on demand management and the use of supply opportunities that have lowest environmental impact, such as enhancements of current power schemes, use of cogeneration and waste-to-energy, and least-impact new supply options.

### **Priority: Efficient use**

The four areas of focus identified are woefully inadequate to prioritise demand management as a critical component of an energy strategy. The specific objectives and actions in the 2007 New Zealand Energy Efficiency and Conservation Strategy are more appropriate.

### **Priority: Environmental responsibility**

The first area of focus, on best practice, does not reflect that the regulatory frameworks for conservation protection and environmental management are incomplete. Strategic direction on conservation protection and environmental management requires the promulgation of the NPS on Renewable Electricity Generation, the Coastal Policy Statement and the NPS on Freshwater Management. In the marine area, the Marine Protected Areas process is stalled and there is still not regulation for mining and energy generation in the EEZ. These areas of regulation and national guidance are required urgently.

The area of focus on reducing emissions is contradicts the first priority of the Strategy, developing petroleum and mineral fuel resources. As such it is fundamentally compromised and ultimately unachievable in the context of the current Strategy. Reducing emissions should be a top priority.

### **Recommendations**

- 1. That the draft NZES is rejected and the current Strategy remains in force.**
- 2. That the order of the four priorities in the NZES is reversed in any subsequent Strategy .**
- 3. That “Develop petroleum and mineral fuel resources” priority is deleted altogether from the NZES.**

## **The New Zealand Energy Efficiency and Conservation Strategy**

The New Zealand Energy Efficiency and Conservation Strategy, in contrast to the NZES, is a statutory document. The current Strategy is called *Making It Happen: Action plan to maximise energy efficiency and renewable energy* and was published in October 2007. The title reflects that it is focused on specific time-bound actions (130 in total) to transform the energy efficiency of the economy.

The proposed NZEECS is also a significant departure from the current Strategy, both in form and substance. While it does contained worthy objectives and time-bound targets, it completely lacks the means to achieve them. The 130 new and existing actions detailed in the current Strategy are reduced to nine existing programmes.

It is incorrect to assert that the NZEECS is a ‘companion’ to the NZES, described as the ‘primary statement’ of energy policy. While the two documents need to be compatible and complementary – noting that the proposed drafts are not – the NZEECS is not subservient to the NZES. As outlined above, the NZEECS is a statutory requirement, where as the NZES is not.

The NZEECS is required under law in sections 8-12 of the *Energy Efficiency and Conservation Act 2000*. Section 10 outlines the requirements of the NZEECS:

## **10. Purpose and contents of strategy**

(1) The purpose of a strategy is to give effect to the Government's policy on the promotion in New Zealand of energy efficiency, energy conservation, and the use of renewable sources of energy.

(2) The strategy must state—

- (a) 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; and
- (b) the objectives to be pursued to achieve 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; and
- (c) targets to achieve those policies and objectives, being targets that are measurable, reasonable, practicable, and considered appropriate by the Minister; and
- (d) means by which those policies and objectives, and any such targets, are to be achieved; and
- (e) such other matters as may be necessary to achieve the purpose of this Act.

We submit that the proposed NZEECS fails to meet these requirements:

- By not repeating the actions outlined in the current NZEECS, it is effectively cancelling those actions, which is contrary to the purpose statement (S10(1)).
- Priorities can change that might require revision of earlier actions, but the proposed NZEECS do not contain specific new actions and indicate funding to achieve them.
- By failing to state meaningful targets and the necessary actions by which the policies and objectives that are included will be achieved, the proposed NZEECS is contrary to S10(2)(c) and (d)

As noted above, the proposed NZEECS is also a significant departure from the current Strategy, both in form and substance. While it does contain worthy objectives and time-bound targets, it completely lacks the means to achieve them.

Last, Section 11 holds that a NZEECS “must be consistent with any national policy statement for the time being in force under the Resource Management Act 1991”. An NPS on Renewable Electricity Generation has been recommended to the Minister for the Environment by its Board of Inquiry. The intent of the law is that an NPS has statutory superiority to an NZES or NZEECS. It should therefore be promulgated first, and revisions of the NZES or NZEECS viewed in light of it.

### ***Recommendations***

- 4. That the proposed changes to the NZEECS are rejected and the current Strategy remains in force.***
- 5. That the current NZEECS its objectives, targets and actions continue to be actioned until such time as any revised NZEECS details the actions necessary to achieve the objectives and targets .***

Thank you for the opportunity to submit on the energy strategies.

Quentin Duthie, Conservation Advocate