

# Climate Defence Network (New Zealand)

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**Submission on the NZ Government discussion documents: "Powering Our Future – The Draft New Zealand Energy Strategy to 2050 (NZES) and Draft New Zealand Energy Efficiency and Conservation Strategy (NZECS)**

## 1. INTRODUCTION

CDN is a network of organisations and individuals concerned about the need to prevent destabilising climate change. It includes: Environment and Conservation Organisations ECO, the Environmental Defence Society, Cycling Advocates' Network, Forest and Bird Protection Society, Federated Mountain Clubs, Friends of the Earth NZ, Greenpeace NZ, Gecko, Pacific Institute of Resource Management, Public Health Association, Ecoaction, Alternative Technology and Lifestyle Association, Nelson Environment Centre, Engineers for Social Responsibility, the Sustainable Energy Forum and WWF.

CDN welcomes the opportunity to make this submission.

### Further consultation

While 30 March is the end of the submission period, it is essential that it not be the end of the process of consultation and engagement. To be effective, these strategies must be revisited, revised and updated frequently. CDN is keen to work with the Government and with officials, as our resources permit, to ensure that this is the case.

## 2. TARGETS

**CDN recommends that the Government needs to set long-term economy-wide emissions reduction target at the level of an 80-90% reduction in New Zealand's greenhouse gas emissions, compared to 1990 levels, by 2050. This target should be subject to both revision and an increase in precision as understanding of the risks of both abrupt and gradual climate change increases.**

**CDN also recommends** that the Government must report the progress on a regular basis. The reporting periods must be clearly indicated.

To bring the implications of this long-term target closer to the present day, **CDN proposes the following subsidiary targets:**

- 1. A 20% reduction in New Zealand's greenhouse gas emissions, compared to 1990 levels, by 2020.**

## 2. A target of moving to a 100% renewable stationary energy system by 2025.

### OVERALL COMMENTS

1. Introduction of **carbon equivalent pricing** must begin now, and increase progressively according to climate change strategy. The price should fall on those who pollute. Carbon charges should be recycled to achieve emission reductions (eg invested in emission reduction projects) and address equity and fuel poverty.
2. Comprehensive planning for a **low energy use, high energy efficiency** future to reverse the present trend of increasing greenhouse gas emissions.
3. **Investment** in end-use efficiency, renewables and long-lived assets (such as buildings, transmission networks). Obligations on energy efficient standards such as MEP and BERS must take effect immediately.
4. The Government needs to increase its investment in energy efficiency retrofits (eg to ensure all pre-1976 houses are insulated in the next decade).
5. Serious consideration of **carbon constraints**, specifically constraints on **oil and gas supply**; the energy strategy should not leave the door wide open for coal to be used as a back up if supply does not match demand. To the extent necessary for coal to be used as backup, emissions from such backup should be effectively accounted for, eg via project-based measures.
6. We need to focus on the cost of power bills, not the price of power so that there are clear incentives on consumers to reduce demand with lower prices for those who use less.
7. **Real-time price information** in both transport and stationary energy (variable pricing to give better incentives to modify demand and to more accurately reflect the external costs of energy production)
8. Remove barriers and create incentives to encourage investment in renewables and "**local energy**" (distributed generation, energy efficiency). Create benefits for small and/or new players as opposed to large scale projects.
9. Creation of a market for **demand reduction** through increased policy emphasis on the demand side (in both stationary energy and transport).
10. **Housing issues** including domestic emissions, home heating and insulation, supply issues, improved building code to better reflect geographical differences as well as modern insulation standards.
11. **Urban planning and design** standards to reduce energy demand such as urban sprawl, transport planning, regional energy assessment and strategy, teleworking, neighbourhood trees and bush areas.
12. Promote **innovation** and join **international renewable energy and efficiency networks**.
13. We need an **independent regulator for energy** to mitigate government conflicts of interest.

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14. Pass the Climate Protection Bill and develop a national policy on climate change under the Resource Management Act.

### **4. The Draft NZ Energy Strategy: Measures Do Not Match the Government's Vision**

The measures proposed in the New Zealand Energy Strategy (NZES) and Sustainable Land Management and Climate Change documents are not generally compatible with Government's vision of resilient, low-carbon, sustainable energy.

Proposed measures fail to deal with all sectors who produce greenhouse gases and the proposals are small, incremental, or delayed.

The political focus of NZES is clear. Most of the issues discussed have seen much media attention in the last few years – especially electricity security, transport issues and climate change. NZES and NZEECS offer a great many options but few indications of Government's preferences; these will be sorted out, as always, through political processes.

What is not acknowledged is the Government's conflicts of interest. For example, residential electricity bills provide most of retailer-generators' profits and therefore dividends to the Government. Household energy sources that compete with electricity – natural gas, LPG and firewood – are barely mentioned. Firewood is actually "modeled" as providing no household energy at all. The fact that "unexpected" government surpluses were put into roading projects in key electorates was not mentioned.

The HEEP (Household Energy End-use Project) research has found that on average 29% of household energy goes on heating water and 34% of heating air - in total just under two thirds of the energy is for low grade heat that does not need to be provided by electricity. The HEEP analysis suggests that contrary to popular belief, the real problem with household energy occurs at the top end of the market - in big, electricity-hungry homes.

Analysis of HEEP data further shows that shifting to high efficiency electric heat pumps does not alter the overall residential electricity demand and actually makes the peak demand worse - this is a consequence of the importance of solid fuel for space heating. It is only as a result of the HEEP work that we now understand the relative importance of different fuels and the purposes for which they are used. The HEEP results

show that policy should be based on research data, not assumptions – especially assumptions that are badly wrong.<sup>1</sup>

The Government needs to fund ongoing research into energy use and demand across all sectors. The Government and consumers need to make informed decisions. The vision and action in the energy strategy needs to include research and monitoring goals and actions.

### 5. TRANSPORT

The overall transport goal proposed by the NZES is a resilient, low carbon transport system. However, neither “resilient” nor “low carbon” is defined, and the measures proposed by the NZES and NZEECS to meet this goal are inadequate.

The provision of transport is not an end in itself - it is a way to provide access to services. CDN suggests five principles to guide land transport policy, with a 1-4 hierarchy:

- Reduce the use of motorised transport where possible
- Where motorised transport is needed, encourage alternatives to private road transport where possible (also known as “mode shifting”)
- Provide transport energy in ways which will significantly reduce our net emissions profile and the use of fossil fuels
- Where fossil fuels are being used for transport, use them as efficiently as possible, and with the lowest possible emissions profile
- Ensure that fossil fuel prices do not fall below a level which encourages the transition to lower-emissions alternatives.

#### The transport goal

A resilient, low-carbon transport system would be a huge improvement. The problem is that neither resilience nor low-carbon are defined, and the scale of the responses proposed in the NZES and NZEECS is insufficient to achieve either. Of the two components of this goal, resilience is harder to define.

To be meaningful, the transport emissions goal has to specify what reduction in transport carbon emissions (compared with 1990 levels) is to be achieved by when.

We also acknowledge that rapid progress will be easier in the stationary energy sector than in the transport sector.

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<sup>1</sup> For more on this, see Nigel Isaacs, “Electricity Security & Supply – The Role of Demand”, available at <http://www.energyfed.org.nz/NIsaacs1.pdf>

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However, given the alarming 62% rise in transport CO<sub>2</sub> emissions since 1990, we believe that action needs to start in 2007 – not wait until 2012 – to reverse this rise and bring transport emissions rapidly below 1990 levels. Without this, action will be unfeasible at least and very costly at worst.

The transport measures proposed in the draft NZES and NZEECS go nowhere near achieving this. Figure 4.1, p. 21 in the draft NZES shows that transport emissions have risen from 10 to over 15 million tonnes CO<sub>2</sub>-e from 1990 to 2005, and projects that, if all “emissions reductions opportunities in transport energy” are taken, emissions will still be well above 1990 levels in 2030.

Officials have explained that this graph is “indicative only”, but that merely illustrates the problem: where are the measurable targets?

As discussed in the Targets section, while the overarching emissions reduction goal should be set, and subsequently modified if necessary, in the light of a prudent response to the risks of both “consensus-level” and dangerous climate change, detailed emissions reduction targets need to be subject to modelling, measurement, and modification. Subject to this analysis:

**CDN recommends that the following land transport emissions reductions goals be set:**  
**A stabilisation in net transport carbon emissions on 1990 levels by 2015**  
**A 15% reduction in net transport carbon emissions on 1990 levels by 2025**  
**A 50% reduction in net transport carbon emissions on 1990 levels by 2040**  
**A 90% reduction in net transport carbon emissions on 1990 levels by 2050**

Shorter-term progressive targets, as discussed in “Targets” above, should then be set to give effect to these goals.

**CDN recommends four key factors are needed to drive this transition - recommends measures which do not need to wait for technological developments:**

- **A rising price of fossil fuel used for road transport**
- **The provision of alternatives to the use of private passenger vehicles**
- **Mandating the adoption of smaller, less powerful, and less emissions-intensive vehicles**

The fourth, although already underway, is dependent on technological innovation:

- **Changes in engine and vehicle technology**

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The draft NZES focuses on the fourth factor, and ignores or downplays the first two, thus losing the opportunity to make serious progress on reducing transport emissions now, instead of waiting for developments in vehicle technology and subsequent changes in the vehicle fleet.

## 5.2 Air and Sea Transport

**CDN recommends** that the NZES, NZEECS and climate change documents be amended to give substantially more coverage to air transport (and also sea transport), and that the following steps be taken:

- **Ensure that the necessary data collection facilities are in place to be able to do full lifecycle emissions accounting for air and sea transport to, from, and around New Zealand.**
- **Play a positive part in international negotiations to ensure that emissions from international travel are included in international accounting for GHG emissions, and that the factors which exacerbate aviation's climate effects (such as the formation of contrails, and the height at which emissions are released) are taken into account.**
- **In parallel with greater support for teleworking and telecommuting within New Zealand, provide support and incentives for international business travel to be replaced by teleconferencing and internet-based communications wherever possible.**
- **Work towards establishing a greenhouse gas emissions cap for international transport to and from New Zealand, this cap to reduce over time.**
- **Prepare the tourism industry for a future in which fewer tourists visit New Zealand, and those that do stay, stay for longer.**

## 6. NZEECS

NZEECS is a subset of the NZES. It is a 5 year strategy and action plan aimed at maximising energy efficiency and renewable energy:

The new National Energy Efficiency and Conservation Strategy (NEECS) has the potential to deliver substantial reductions in greenhouse gas emissions, and a more productive economy.

**CDN recommends that, in order to be effective, the NEECS should:**

- **Adopt an overall target of a 20% reduction in total energy consumption by 2020.** Interim and sectoral targets should be consistent with this overall target.

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- **Facilitate a major increase in investment in energy efficiency and conservation to at least \$300-\$400 million annually.** This would still be a relatively small investment when compared to current billion dollar proposals for investment in new generation. For example, the State-owned energy company Meridian already plans to spend \$1.2 billion on its Project Hayes wind farm, and New Zealand consumers spend \$11.3 billion annually on electricity, petrol and diesel. For energy efficiency and conservation to become a serious part of the energy market, it will require a significant increase in financial investment. **Require that the proposed expanded energy efficiency retrofit programme be better tailored to take advantage of the delivering agencies strengths for improved outcomes.** Currently Community not-for-profit organizations deliver over 80% of EECA's retrofit programmes but are hampered by programme design that fails to appreciate the strengths and potential of these organisations. A programme that better understands and acknowledges these organizations strengths and relationships with their communities will increase both uptake, community understanding and energy benefits.
- **Require the Energy Efficiency and Conservation Authority (EECA) to foster new business that deliver energy-efficient services.**
- **Include an Electricity Demand Management Fund.** A small levy on electricity sales would generate significant funds for energy savings and efficiency. The funds would be distributed to the private sector by a tender process. In Australia, the State of New South Wales has an A\$200 million fund of this type. This could be an expansion of the Electricity Commission levy.
- **Ensure the rapid uptake of smart metering** – a measure that has already been specifically recommended by the Parliamentary Commissioner for the Environment. The Canadian State of Ontario plans to have 100 per cent of electricity consumers on smart meters by 2010. Ensure consumers are able to negotiate pricing deals with an agent of their choice, not only with the company that provides the meter.
- **Require the Government to lead in practice.** Government Departments should be set energy efficiency savings targets and required to report on them annually. This should also be extended to SOE's.
- **Incorporate a measure to “decouple” electricity profits from electricity sales.** Electricity companies that assist customers to save electricity could be financially recognized as they reduce the demand for new investment in generation and transmission lines.

## 7. THE RESOURCE MANAGEMENT ACT

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Climate change is a complex issue, requiring action at all levels - individual, local, regional, corporate, national and international. The Resource Management Act (RMA) was amended in 2004 to remove regional councils' ability to directly manage and regulate greenhouse emissions.

Greenpeace has successfully argued in the High Court that the benefits of renewable energy development in reducing climate change can be considered under section 104E of the RMA (The proceedings were part of Greenpeace's challenge to plans by Mighty River Power to build the Marsden B coal-fired power station.). What remains, though, is a gaping hole in New Zealand's regulation of greenhouse pollution.

- the Resource Management Act does not allow regional councils to generally consider climate change, or to directly regulate greenhouse pollution, outside the constraints of section 104E; and
- there is no national regulation of greenhouse pollution.

**7.1 The Climate Protection Bill** (Resource Management (Climate Protection) Amendment Bill 2006), would re-instate the ability of local and regional authorities to directly regulate greenhouse pollution, and is therefore the best available means of addressing the problem in a timely manner. This could be reassessed once a price on greenhouse pollution is implemented.

**CDN recommends that Parliament enacts the Climate Protection Bill.**

### **7.2 Public engagement**

CDN sees no need to use the call-in provisions of the RMA for renewable developments. Wind developments are being consented with most not being appeal to the Environment Court. The recent review by the industry dominated MED working group saw no need for a national policy or national standard to assist new generation.

### **7.3 A National Policy Statement on Climate Change**

Government must ensure that the RMA comprehensively addresses climate change. A national policy statement under the Resource Management Act has obvious synergies with any economic instrument. An NPS is totally compatible with economic instruments and could have several advantages, particularly with the need to protect sinks and carbon stores.

The Government should take note of the commentary on national policy statements in the Board of Inquiry report on the Stratford combined cycle power station (chapter 11). CDN agrees with the statements made:

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"The Board believes that a national policy statement should cover but not be restricted to the following matters:

1. Policies governing discharges of CO<sub>2</sub> from all anthropogenic sources in New Zealand designed to implement New Zealand's international obligations to the global environment;
2. Mechanisms for distributing and internalising the environmental costs of CO<sub>2</sub> discharges, or capacity to discharge;
3. Mechanisms for establishing and maintaining carbon sinks, and their relationship to environmental costs by such means as carbon credits;
4. The various means of control of CO<sub>2</sub> discharges at national, regional and district levels;
5. The provisions which should be included in policy statements, plans, rules, or regulations.
6. The procedures and methods to be used to review the policies and to monitor their effectiveness."

The board noted that it would be difficult to achieve national consistency on greenhouse gas emission regulations without such a National Policy Statement.

"Without such a statement consent authorities receiving individual greenhouse gas emissions consent applications on a case by case basis must, of necessity, proceed in an ad hoc and isolated manner. There will inevitably be differences in assessment between different consent authorities and between consent applications."

**CDN** agrees with the Board of Inquiry's points, and **recommends** including the following clauses:

- General principles for including climate change issues in policies, plans and resource consents;
- Implementation of New Zealand's international obligations under the Framework Convention on Climate Change and Kyoto Protocol;
- Measures to enhance or maintain sinks - this could include principles for the maintenance of indigenous forests and other vegetation types and greenhouse friendly subdivisions;
- Measures for subdivision design which are sustainable and reduces greenhouse gas emissions;
- Measures to be taken to plan for sea level rise and increased storm events;
- Matters to be included in air emission plans - this could include criteria for rules and resource consents;
- Matters of special significance to tangata whenua;
- Relationship to any economic instruments.

**8. End subsidies to fossil fuels and recycle income from carbon charge to further reduce emissions.**

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Fossil-fuel energy sources receive an estimated \$365-440 billion in subsidies per year worldwide, heavily distorting markets.

Subsidies artificially reduce the price of fossil fuel energy, and block the uptake of renewable energy in the market place. Eliminating direct and indirect subsidies to fossil fuels would help move us towards a level playing field across the energy sector.

Key fossil fuel subsidies that exist in NZ and should be removed include the following:

- Introduction of a cost of carbon in the energy sector – immediately. CDN commends the Government on at least considering this aspect, but stresses that this price on carbon needs to go much wider across the economy and be applied sooner than 2012.
- In June 2004, the Government introduced a suite of subsidies for gas exploration, worth up to \$100 million. This should be removed.
- The Government's agreement with Genesis Energy to compensate Genesis if the company cannot secure enough gas to operate the e3p gas power station. The contingent liability arising out of the guarantee is uncertain, but could be significant if gas supplies run low.
- In mid-2006, Meridian Energy paid an \$800 million special dividend to the Government. The Government chose to funnel the renewable energy company's profits directly into fast-tracking the nation's road projects. The absurd outcome will likely be an increase in greenhouse pollution from road transport.

Removing fossil fuel subsidies would save taxpayers' money and reduce current energy market distortions. It would also dramatically reduce the need for renewable energy support.

**CDN recommends that dividends from renewable energy SOE's should be funneled into another area to achieve the goal of reducing C02 emissions – certainly not to increasing them in another sector.**