Submission to the Ministry of Economic Development on the draft Energy Strategy

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31 August 2010

Summary of Recommendations

The draft Energy Strategy does not, in its current form, constitute a credible replacement for the existing Energy Strategy. WWF-NZ recommends that the existing strategy should remain in force until or unless the deficiencies in the draft are rectified. To rectify the deficiencies in the draft strategy, WWF-NZ recommends that MED:

1) Clearly separates any strategy or plan to increase energy exports from the strategy to ensure affordable, sustainable, secure energy supplies for New Zealand.

2) Sets specific, time-bound objectives and targets so that levels of ambition are defined and progress can be effectively monitored. In particular:

- There should be a clear strategy on liquid fuels that addresses the identified challenges of increasing oil prices and the need to reduce greenhouse gas emissions. This part of the strategy should include the Government's objectives on public transport, on transport fuel efficiency and on the development and adoption of alternatives to fossil fuel-based liquid fuels. The document should also set out the strategy for achieving these objectives including existing policies or initiatives (and what they are expected to achieve) and the kind of new policies or initiatives that will be required.

- There should be a clear strategy on electricity generation that can address the challenges of, for example, reducing greenhouse gas emissions, diversifying supply, upgrading electricity infrastructure and the potential impact of increased use of electric vehicles. This part of the strategy should include the Government's objectives on renewable electricity generation, coal fired electricity generation, gas fired electricity generation, distributed generation, fuel poverty, more efficient use of electricity, smart grids and smart meters. The document should also set out the strategy for achieving these objectives including existing policies or initiatives (and what they are expected to achieve) and the kind of new policies or initiatives that will be required.

3) Avoids creating the impression that increased oil extraction off the coast of New Zealand will contribute to the domestic supply of liquid fuels, given that the majority is exported.

4) Is more transparent about the extent to which domestic liquid fuel security can be achieved through drilling more oil off the coast of New Zealand given the limitations relating to: the type of oil extracted in New Zealand, the requirements associated with the IEA oil reserve, and the Government's powers to require oil to be refined and sold in New Zealand.

5) Develops a credible plan to prepare New Zealand for oil price increases in the future. It is the Government's job to look ahead at the challenges facing New Zealand and to take action so that alternatives to petrol/diesel driven road transport will be available before oil starts becoming unaffordable. In this regard, WWF-NZ urges the Government, amongst other things, to examine the work on domestic biofuels of the Parliamentary Commissioner for the Environment[1] as well as the NIWA/SCION EnergyScape project.[2]

6) Makes a clear statement of intent on coal-fired electricity generation outlining how this will, or will not, contribute to the emissions reductions New Zealand needs to achieve. WWF-NZ urges the Government to set out a strategy for how New Zealand will transition away from burning coal to generate electricity.

7) Makes a clear statement of intent on the use of New Zealand's methane hydrate deposits, outlining what these are likely to be used for and how this will, or will not, contribute to the emissions reductions New Zealand needs to achieve. The Government's objectives relating to methane hydrates should clearly state whether or not there is an intention to use public money to facilitate exploitation of this resource and what public benefit is expected to result. WWF-NZ urges the Government not to pursue extraction of this fossil fuel and certainly not to use public money, which could instead be invested in low carbon alternatives.

8) Makes a clear statement of intent regarding the conversion of coal to liquid fuels and how this will, or will not, contribute to the emissions reductions New Zealand needs to achieve. The Government's objectives relating to coal to liquid fuel conversion should clearly state whether or not there is an intention to use public money to facilitate exploitation of this resource in this way and what public benefit is expected to result. WWF-NZ urges the Government not to pursue coal to liquid fuel conversion and certainly not to use public money, which could instead be invested in low carbon alternatives.

9) Makes a clear statement of intent on carbon capture and storage. If this is to be a major plank of the Government's strategy to reduce emissions, clarity is required on how it will be developed, when it is likely to be available, and whether/how public money will be used to pay for the major infrastructure that is likely to be required. If certain activities (e.g. converting coal to liquid fuels) will only be accepted if CCS is incorporated into the project from the outset, this should be clarified. If the Government intends to enable heavily polluting activities (such as coal to liquid fuel conversion) to proceed based only on the possibility that CCS might one day be viable, this should be clarified.

10) Sets a clear, time-bound objective for emissions reductions in the energy sector and set out a strategy for achieving this objective.

11) Creates a clear strategy for achieving the 90% renewable electricity target, including a timeline of what is expected to be achieved between 2010 and 2025 so that progress can be monitored and policies changed depending on whether progress is beyond or behind expectations.

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[1] PCE. (2010). *Some biofuels are better than others: Thinking strategically about biofuels*. 29 July 2010. Wellington, Parliamentary Commissioner for the Environment.

[2] NIWA. (2009). *New Zealand's EnergyScape: EnergyScape basis review Section 2 –Bioenergy Resources*. June 2009. Auckland, National Institute of Water and Atmospheric Research. http://www.niwa.co.nz/__data/assets/pdf_file/0008/95921/EnergyScape-Basis-Review-Section-3-_Bioenergy__B.pdf

12) Transparently states what the expected impact of the ETS will be in the energy sector, including a breakdown of what can be expected in transport and electricity generation and including any assumptions that are made regarding the 'business as usual scenario' in the absence of the ETS.

13) Sets out what complementary policies will be needed, in addition to a more effective price on carbon, to achieve emissions reductions and increased renewable electricity generation. WWF-NZ urges the Government to adopt, amongst other things, a 'feed-in-tariff' as one measure that can help stimulate increased renewable electricity generation.

14) Sets an objective for distributed electricity/heat generation and develop a plan for achieving this, including policies such as 'feed-in-tariffs'. WWF-NZ also urges the Government to investigate the potential for biomass to provide district heating in New Zealand.

15) Sets a clear objective for transport sector emissions reductions.

16) Is transparent about the negligible contribution that will be made by current policies (ETS, fuel economy labeling, biofuel grant scheme and tax exemption for electric vehicles) to reducing transport sector greenhouse gas emissions.

17) Develops a plan to augment a more effective carbon price with a range of complementary transport-sector measures including, for example:

- Further investment in public transport
- Encouraging freight onto railways and coastal shipping
- Vehicle fuel economy standards
- Investment in the development of low carbon liquid fuels
- Prioritising research that facilitates the required transition away from fossil fuels

18) Sets out the Government's medium and long term objectives for the remainder of the 900,000 homes in New Zealand that will not be reached by the Heat Smart programme so will continue to lack adequate insulation.

19) Signals an intention in the strategy to develop a fuel poverty plan in New Zealand that would set out how the Government will address the problem (i.e. what its plans are over the coming years to reduce fuel poverty in addition to the Heat Smart programme).

20) Clearly defines 'best practice'. If achieving 'best practice' is to be the objective, a much clearer definition than 'maintaining New Zealand's good international reputation' is required.

21) Sets out a strategy for developing (where necessary), monitoring and enforcing environmental safeguards in:

- petroleum exploration and extraction
- coal mining
- methane hydrates exploration and extraction

22) Leaves the existing NZEECS in force until or unless a credible alternative strategy is produced. If the Government plans to do very little to encourage energy efficiency in New Zealand, the level of ambition in the objectives and targets therefore needs to be revised downwards to reflect this minimal effort.

Introduction

WWF-New Zealand (WWF-NZ) thanks the Ministry of Economic Development for the opportunity to make a submission on the draft Energy Strategy.

WWF-NZ is part of the WWF International Network, the world's largest and most experienced independent conservation organisation. It has close to five million supporters and a global network active in more than 100 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature. This is achieved by working on the ground with local communities, and in partnership with government and industry, using the best possible science to advocate change and effective conservation policy.

WWF-NZ's comments on the draft Energy Strategy concentrate on three of the questions posed in the consultation process and the comments on the draft Energy Efficiency and Conservation Strategy (EECS) focus on one question.

Draft Energy Strategy

1. Do you have any comments on the proposed goal, priorities and 12 areas of focus? What would you change, and why?

1.1 The draft strategy states the following:

"The Government's goal is for New Zealand to make the most of its abundant energy potential, for the benefit of all New Zealanders. This will be achieved through the environmentally-responsible development and efficient use of the country's diverse energy resources, so that:

- *the economy grows, powered by secure, competitively-priced energy and increasing energy exports, and*
- *the environment is recognised for its importance to our New Zealand way of life."*

1.2 In its current form, the draft Energy Strategy is not a strategy. It contains no clearly stated time-bound objectives or targets. The above-mentioned 'goal' is a broad overarching vision statement that does not provide the reader with a clear sense of what is to be achieved and by when. In the absence of clear, time-bound objectives and targets there will be no way for parliamentarians, the media or the public to measure the success or failure of this 'strategy'.

1.3 It is not clear whether the 12 'areas of focus' listed on page 7 of the draft strategy are intended to be objectives or not. Some are simply chapter headings, such as *"oil security and transport"* while others hint at a desired outcome (e.g. *"develop renewable energy resources"*). If they are supposed to be objectives, they certainly do not meet the 'specific, measurable, time-bound' test. Take, for example, the first 'area of focus': *"develop petroleum and mineral fuel resources"*. The draft strategy does not state by how much, by when and what are the expected benefits (e.g. contribution to employment, government revenue and New Zealand's balance of payments)? These are important questions that a strategy should seek to address.

1.4 Another area of focus is to *"reduce energy related greenhouse gas emissions"*. Again, it would be reasonable to expect a strategy document to address questions such as how much, compared to what baseline, and by when.

1.5 It is also not clear whether the 'desirable long-term future' set out on pages 4 & 5 of the draft strategy constitutes a set of objectives or not. The document says the intention is to *"set out how we*

would like the future to be" which implies some kind of objectives but the 'desirable long term future' statements that follow are generally woolly and lack specificity. For example, according to the draft strategy, a 'desirable long term future' is one where *"Emissions from transport have halved due to improvements to efficiency and greater use of lower carbon energy sources."* However, the draft strategy does not elaborate on what the baseline is for halving emissions, does not say when the halving is supposed to have happened by and does not set out a plan that has any chance of achieving this desired long term future.

1.6 The final point to make regarding objectives is that, compared to the previous Energy Strategy[3], the focus has expanded from ensuring New Zealand has a sustainable, affordable supply of energy to also including promoting fossil fuel exports. However, despite the two objectives requiring quite different approaches, the draft document does not clearly separate what strategy will be employed to achieve sustainable, affordable domestic energy and what strategy will be employed to increase fossil fuel exports. This tendency towards ambiguity in the draft strategy makes the document muddled and unhelpful for those wanting to understand what the Government is trying to achieve.

WWF-NZ recommendations on goals and targets

To rectify the deficiencies outlined above, WWF-NZ recommends that MED:

1) Clearly separates any strategy or plan to increase energy exports from the strategy to ensure affordable, sustainable, secure energy supplies for New Zealand.

2) Sets specific, time-bound objectives and targets so that levels of ambition are defined and progress can be effectively monitored. In particular:

- There should be a clear strategy on liquid fuels that addresses the identified challenges of increasing oil prices and the need to reduce greenhouse gas emissions. This part of the strategy should include the Government's objectives on public transport, on transport fuel efficiency and on the development and adoption of alternatives to fossil fuel-based liquid fuels. The document should also set out the strategy for achieving these objectives including existing policies or initiatives (and what they are expected to achieve) and the kind of new policies or initiatives that will be required.

- There should be a clear strategy on electricity generation that can address the challenges of, for example, reducing greenhouse gas emissions, diversifying supply, upgrading electricity infrastructure and the potential impact of increased use of electric vehicles. This part of the strategy should include the Government's objectives on renewable electricity generation, coal fired electricity generation, gas fired electricity generation, distributed generation, fuel poverty, more efficient use of electricity, smart grids and smart meters. The document should also set out the strategy for achieving these objectives including existing policies or initiatives (and what they are expected to achieve) and the kind of new policies or initiatives that will be required.

[3] MED. (2007). *New Zealand Energy Strategy to 2050. Powering our future: Towards a sustainable low emissions energy system.* October 2007. Wellington. Ministry for Economic Development.

2. Does the proposed NZES effectively promote and support the appropriate development and use of energy resources? If not, what changes do you propose?

2.1 Identifying what is an *"appropriate development and use of energy resources"* or not depends on the objectives being pursued. WWF-NZ will focus comments on what is an appropriate development and use of energy resources in order to ensure New Zealand has an affordable, sustainable, secure supply of energy.

Oil extraction, liquid fuel supply and transport

2.2 The draft strategy clearly prioritises *"increasing* [petroleum] *exploration activity and…improving the knowledge of our petroleum basins"*. The draft strategy links this activity with increased economic growth and balance of payments benefits. A link is also made with liquid fuel energy security and with the long term trend of increasing oil prices, stating, *"As a small, geographically isolated and open economy, New Zealand is vulnerable to increases in oil prices and external disruptions to oil supply."* It is worth examining these latter two issues in turn.

2.3 On liquid fuel energy security, page 12 of the draft strategy suggests that, amongst other things, *"discovery of more oil within our territory…could help reduce our exposure to international oil supply disruptions"* but does not explain how discovering more oil makes a difference. It is WWF-New Zealand's understanding that the petroleum industry in New Zealand is entirely in the hands of private sector companies which are at liberty to sell their products wherever it makes most economic sense. In this situation, any increased petroleum extraction in New Zealand will simply add to the overall supply on world markets.

2.4 If there is a major oil supply disruption in another part of the world, the impact will likely be a price spike. The extent of the price increase would be determined by the extent of the supply disruption. According to the Government's Oil Emergency Response Strategy, *"Measures contained in the Strategy would only be considered in a severe oil supply disruption and would not be considered where the primary purpose is to manage prices or to assist particular suppliers."*[4] It is hard to predict what kind of crisis could result in such a severe oil supply disruption but it can probably be assumed from this statement that the resulting price spike would have to be so great as to effectively make purchasing petrol and diesel beyond the financial reach of most New Zealanders before the Government steps in. In such a circumstance, the Government does have emergency powers, under the Crown Minerals Act 1991, *"to direct a permit holder to refine or process petroleum in New Zealand, and to prohibit its export."*[5]

2.5 In 2009, the Marsden Point oil refinery was able to supply about 75% of refined oil needs.[6] Capacity at the refinery has recently been increased so that about 80% of the country's needs could be met.[7] Currently, only 3% of Marsden Point's feedstock is supplied by domestic oil because most domestic oil, which is higher value lighter crude, is exported for refining. At 2009 production rates, if all current domestic supply was required to be refined in New Zealand for domestic consumption (in an oil supply crisis), about 39% of domestic oil demand could be met.

2.6 In theory, if domestic oil supplies increased significantly this could enhance liquid fuel energy security. However, two limitations to this security exist. The first is domestic refining capacity which might need to increase depending on trends in oil demand. The second is that 41% of New Zealand's

[4] MED (2008). *Oil Emergency Response Strategy: Government Response to an Oil Supply Disruption*. July 2008
[5] MED (2008). *Oil Emergency Response Strategy: Government Response to an Oil Supply Disruption*. July 2008
[6] Calculated from figure D.1h, page 50 of: MED. (2010). *New Zealand Energy Data File: 2009 Calendar Year Edition*. Wellington, Ministry of Economic Development.
[7] New Zealand Refining Company. (2010). *Refinery expansion means NZ more self reliant*. Media Release. 16 July 2010. http://www.nzrc.co.nz/media/53224/point%20forward%20opening%202%20july%202010.pdf

oil consumer energy is in the form of diesel and 6% in the form of aviation fuel[8] and New Zealand crude oils *"are generally too light and waxy to make good aviation fuel and diesel."*[9] Therefore, no matter what levels of domestic production are achieved, New Zealand may still need to import almost half of its oil needs. More oil extraction may therefore not increase liquid fuel security much beyond existing levels.

2.7 The draft strategy also states that *"New Zealand maintains 90 day oil reserves to respond to serious international oil supply disruptions, as part of its obligations to the International Energy Agency."* However, it does not clarify that these oil reserves are not the 'property' of the New Zealand government. Advice given to the Government on oil supply and oil prices, obtained under the Official Information Act makes it clear that, *"the 90-day obligation cannot be used unilaterally to control domestic prices or supply within New Zealand."*[10] It is under the control of the International Energy Agency and is to be used by the IEA to maintain reliability of global supply.

2.8 On New Zealand's vulnerability to increased oil prices, Page 12 of the draft strategy states that, *"Even with local discovery or production of liquid fuels, the price to New Zealanders will remain in line with international oil prices. We anticipate that oil prices will remain volatile but on an upward path over the coming decades."* In other words, increased petroleum extraction in New Zealand will do nothing to insulate New Zealand and New Zealanders from a long term increase in oil prices.

2.9 This prospect is very real, with the US Joint Forces Command in its Joint Operating Environment report warning that *"By 2012, surplus oil production capacity could entirely disappear, and as early as 2015, the shortfall in output could reach nearly 10 million barrels per day."*[11] In a June 2010 risk analysis on 'sustainable energy security' insurers Lloyd's of London stated that, *"international oil prices are likely to rise in the short to mid-term due to the costs of producing additional barrels from difficult environments, such as deep offshore fields and tar sands."* Lloyd's conclude *"we are heading towards a global oil supply crunch and price spike."*[12]

2.10 However, as the advice that the New Zealand government has received on oil prices and transport makes clear, *"most of New Zealand's oil security policies and practices are aimed at the mitigation of short – medium term oil supply interruptions. They are not designed to cope with oil price spikes or to raise the resilience to long term price increases."*[13]

2.11 On increasing oil prices, page 12 of the draft strategy says, *"this price path (especially price spikes) will help to stimulate the use of alternative energy sources whose prices are not impacted by the oil market"* and although page 13 of the draft strategy states that, *"Diversifying transport energy sources will help New Zealand's energy security and resilience"* it goes on to clarify that, *"The Government will not pick winners: ultimately uptake of new energy sources and technologies will depend on the decisions made by consumers as they respond to oil prices."*

2.12 The strategy effectively says that the Government plans to do little or nothing, and will instead let the 'market' and consumers determine how New Zealand addresses the challenge of increasing oil prices. The main problem with this laissez-faire approach is that the market and consumers are not necessarily in a position to take long term decisions, particularly in relation to critical infrastructure or

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[8] MED. (2010). *New Zealand Energy Data File: 2009 Calendar Year Edition*. Wellington, Ministry of Economic Development.
[9] PCE. (2010). *Some biofuels are better than others: Thinking strategically about biofuels*. 29 July 2010. Wellington, Parliamentary Commissioner for the Environment.
[10] Oil prices and transport sector resilience. A briefing for the New Zealand government. September 2009
[11] Macalister, T. (2010). US military warns oil output may dip causing massive shortages by 2015. *The Guardian*. Sunday 11 April 2010. http://www.guardian.co.uk/business/2010/apr/11/peak-oil-production-supply
[12] Lloyds. (2010). *Sustainable Energy Security: Strategic risks and opportunities for business*. London, Lloyds and Chatham House. http://www.lloyds.com/News_Centre/360_risk_insight/Research_and_reports.htm
[13] Oil prices and transport sector resilience. A briefing for the New Zealand government. September 2009

land use. While in theory a consumer might be in a position to choose alternative modes of transport or alternative fuels when oil prices rise, in practice the existence of alternatives and the quality of alternatives is not something any individual consumer, or even the market in some cases, has much influence over.

2.13 If it is left to the market, some alternatives (e.g. improved public transport) may never become more widespread while others (e.g. home-grown biofuels) may take many years to come on stream in meaningful quantities once oil prices have risen significantly. This will leave the New Zealand economy and New Zealanders in an extremely difficult position during that period.

2.14 Although the draft strategy points out that, *"Individuals, businesses and communities are more resilient to supply disruptions when we have choices, for example in how we heat our homes or the transport we use"* it does not develop a convincing strategy for ensuring such choices exist.

2.15 This hands-off 'don't pick winners' approach when it comes to alternatives to oil is in direct contrast to the hands-on, pro-active, pick winners approach the Government has adopted when it comes to facilitating petroleum and mineral extraction. For example, as page 8 of the draft strategy outlines, in 2009 the Government developed a Petroleum Action Plan which sets out how it intends to promote increased oil extraction, including, for example, investment in seismic surveys.

2.16 That said, on alternative energy, the draft strategy does state that *"The Government will act to stimulate new market developments or remove barriers where appropriate."* Two examples of such action are provided: the biodiesel grant scheme and the exemption of light electric vehicles from road user charges. However, the strategy does not provide any assessment of what these measures are likely to achieve. WWF-NZ's analysis (see paragraphs 2.38 – 2.43 below) is that these measures will achieve very little.

WWF-NZ recommendations on liquid fuels

To rectify the deficiencies outlined above, WWF-NZ recommends that MED:

3) Clearly separates any plan to increase exports from the strategy to ensure affordable, sustainable, secure supplies of liquid fuels for New Zealand. Currently, the two are conflated in the draft strategy and an impression is created, perhaps intentionally, that increased oil extraction off the coast of New Zealand will contribute to the domestic supply of liquid fuels.

4) Is more transparent, about the extent to which domestic liquid fuel security can be achieved through drilling more oil off the coast of New Zealand given the limitations relating to: the type of oil extracted in New Zealand, the requirements associated with the IEA oil reserve, and the Government's powers to require oil to be refined and sold in New Zealand.

5) Develops a credible plan to prepare New Zealand for oil price increases in the future. It is the Government's job to look ahead at the challenges facing New Zealand and to take action so that alternatives to petrol/diesel driven road transport will be available before oil starts becoming unaffordable. In this regard, WWF-NZ urges the Government, amongst other things, to examine the work on domestic biofuels of the Parliamentary Commissioner for the Environment[14] as well as the NIWA/SCION EnergyScape project.[15]

[14] PCE. (2010). *Some biofuels are better than others: Thinking strategically about biofuels*. 29 July 2010. Wellington, Parliamentary Commissioner for the Environment.
[15] NIWA. (2009). *New Zealand's EnergyScape: EnergyScape basis review Section 2 –Bioenergy Resources*. June 2009. Auckland, National Institute of Water and Atmospheric Research. http://www.niwa.co.nz/__data/assets/pdf_file/0008/95921/EnergyScape-Basis-Review-Section-3-_Bioenergy__B.pdf

Other fossil fuels

2.17 The draft strategy indicates that the Government intends to encourage production of other fossil fuels. For example, the draft strategy states that, *"A pathway will also be developed to realise the potential of New Zealand's gas hydrates endowment."* (Page 8).

2.18 The exploration of methane hydrates off the east coast of New Zealand has major implications not only for the potential continued use of fossil fuels and associated greenhouse gas emissions, but also for the opportunity cost of using large amounts of government money to develop the necessary infrastructure to facilitate exploitation of this fossil fuel resource. According to Crown Minerals, the cost of a 'proving' project would be almost NZ$400 million.[16] Such specific government investment choices are important given that money spent in one area may mean less money spent in another.

2.19 For example, $400 million could go a long way towards helping stimulate the development and adoption of alternative fuels or transport modes, given that the Government has committed only $36 million over three years to its biodiesel grant scheme[17] (although first year spending will not even exceed $250,000)[18] and will likely incur a revenue foregone of less than $61,000 per year by the time its road user charges exemption for electric vehicles scheme expires at the end of 2012.[19] A $400 million proving project for methane hydrates, if undertaken, would also sit in stark contrast to the Marine Energy Deployment Fund which has a four-year budget of just $8 million.[20]

2.20 On coal, the draft strategy states the following: *"New Zealand's extensive coal resources currently contribute to electricity supply security. Coal is also utilised by industry and is exported. Coal could potentially contribute to the economy in other ways, such as through the production of liquid fossil fuels, methanol or fertiliser such as urea. This potential is more likely to be fully realised if an economic way to reduce high levels of greenhouse gas emissions is found. Carbon capture and storage technology (CCS) will potentially be an effective way of utilising resources while reducing CO2 emissions."*

2.21 This statement gives no clear indication of whether the Government wants to see more coal-fired power stations, less coal-fired power stations or keep things as they are. It is simply a statement of fact plus some conjecture about carbon capture and storage. Yet New Zealand's approach to using coal to generate electricity is a question of critical importance.

2.22 Building more coal fired power stations will lock New Zealand into higher carbon emissions for the foreseeable future and moving away from coal will benefit New Zealand in a world where carbon emissions are likely to cost more and more. There is no clear strategy for reducing reliance on coal-fired power, either in industry or for electricity generation. There is no indication of whether or not gas will be used as a transitional short or medium term electricity generation fuel to reduce emissions (in comparison to coal) while more renewable electricity generation capacity is created. There is no mention of the future potential for wood to provide some thermal electricity generation capacity to augment expanded wind, solar, marine or geothermal electricity generation.

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[16] See: http://www.crownminerals.govt.nz/cms/news/2009/nz-methane-hydrates-development-may-soon-be-achievable
[17] See: http://www.beehive.govt.nz/release/biodiesel+grants+scheme+be+extended
[18] See: http://www.eeca.govt.nz/node/6059
[19] Regulatory Impact Statement on Road User Charges Amendments. See: http://www.transport.govt.nz/about/functions/Documents/RIS%20-%20RUC%20Amendments%202009.pdf
[20] Ministry for the Environment. (2009). *New Zealand's Fifth National Communication under the United Nations Framework Convention on Climate Change*, Wellington: Ministry for the Environment.

2.23 The reference to coal's potential contribution to producing *"liquid fossil fuels, methanol or fertiliser such as urea"* is another concern. This approach is also referenced in a letter WWF-NZ received from the Energy and Resources Minister in response to questions regarding likely oil price increases. The Minister states, *"Further commercialisation of petroleum and mineral fuel resources has the potential to produce a step change in economic growth for New Zealand while reducing oil import dependency."*[21] (underlining added).

2.24 Producing liquid fuel from lignite will create greenhouse gas emissions during the production process (unless it is combined with carbon capture and storage) and will simply substitute one fossil fuel for another. While this may have an impact on liquid fuel security, it will do nothing to reduce New Zealand's transport related greenhouse gas emissions. In any case, carbon capture and storage (CCS) is some way off becoming a viable way to reduce New Zealand's industrial or thermal electricity generation carbon emissions. In fact, CCS may never become viable in the absence of significant government subsidies to create the necessary infrastructure, which again raises questions about the most effective way to spend limited public funds.

WWF-NZ recommendations on other fossil fuels

To rectify the deficiencies outlined above, WWF-NZ recommends that MED:

6) Makes a clear statement of intent on coal-fired electricity generation outlining how this will, or will not, contribute to the emissions reductions New Zealand needs to achieve. WWF-NZ urges the Government to set out a strategy for how New Zealand will transition away from burning coal to generate electricity.

7) Makes a clear statement of intent on the use of New Zealand's methane hydrate deposits, outlining what these are likely to be used for and how this will, or will not, contribute to the emissions reductions New Zealand needs to achieve. The Government's objectives relating to methane hydrates should clearly state whether or not there is an intention to use public money to facilitate exploitation of this resource and what public benefit is expected to result. WWF-NZ urges the Government not to pursue extraction of this fossil fuel and certainly not to use public money, which could instead be invested in low carbon alternatives.

8) Makes a clear statement of intent regarding the conversion of coal to liquid fuels and how this will, or will not, contribute to the emissions reductions New Zealand needs to achieve. The Government's objectives relating to coal to liquid fuel conversion should clearly state whether or not there is an intention to use public money to facilitate exploitation of this resource in this way and what public benefit is expected to result. WWF-NZ urges the Government not to pursue coal to liquid fuel conversion and certainly not to use public money, which could instead be invested in low carbon alternatives.

9) Makes a clear statement of intent on carbon capture and storage. If this is to be a major plank of the Government's strategy to reduce emissions, clarity is required on how it will be developed, when it is likely to be available, and whether/how public money will be used to pay for the major infrastructure that is likely to be required. If certain activities (e.g. converting coal to liquid fuels) will only be accepted if CCS is incorporated into the project from the outset, this should be clarified. If the Government intends to enable heavily polluting activities (such as coal to liquid fuel conversion) to proceed based only on the possibility that CCS might one day be viable, this should be clarified.

[21] Brownlee, G. (2010). Personal communication, June 2010.

Renewable energy and reducing emissions: electricity generation

2.25 The introduction of the draft strategy states, in future, *"The international economy will reward efforts to reduce greenhouse gas emissions to address climate change."*

2.26 'Area of focus' number 12 in the draft strategy is *"reduce energy-related greenhouse gas emissions"* (Page 17). However, there is no clear statement on what the Government seeks to achieve regarding energy related emissions. The *"50 per cent reduction in New Zealand's carbon-equivalent net emissions, compared to 1990 levels, by 2050"* [22] mentioned in the strategy is an economy-wide target, which means it does not specifically relate to the energy sector.

2.27 The draft strategy does commit to an increase in renewable energy generation. Page 9 says, *"The Government retains the aspirational, but achievable, target that 90 per cent of electricity generation be from renewable sources by 2025 (in an average hydrological year) providing this does not affect security of supply."* Notwithstanding the caveat on supply security, which could in future be used to justify more fossil fuel electricity generation if not enough effort has been made to expand renewable generation capacity, retaining such a target is certainly welcome. It is in fact the only clear time-bound target in the draft energy strategy.

2.28 Given New Zealand's existing capacity and abundant renewable electricity generation potential,[23] the target is certainly achievable. However, this will not happen without a clear plan and an effective mix of policies. Unfortunately, the rest of the reducing emissions section of the draft energy strategy is bereft of detail on the actual strategy for increasing renewable electricity generation and achieving emissions reductions.

2.29 According to the draft, *"The New Zealand Emissions Trading Scheme (ETS) will be the primary means to reduce emissions in the energy sector, and all other sectors across the economy. A price on carbon emissions will be a feature of future investment decisions and in improving the competitiveness of low emissions alternatives."* It is not however clear from the Government's modeling what impact the ETS will have in the energy sector.

2.30 Projections of the impact of the ETS are that it will reduce emissions below business as usual by about 10 million tonnes CO_2e per year by 2020. In other words, the Government is projecting that, after 10 years of implementation, the ETS will only be able to keep emissions at their current levels. The Ministry of the Environment has estimated that 3 million tonnes of this will be in the forestry sector and 7 million tonnes will occur across the rest of the economy. It is not clear how much of this 7 million tonne saving is expected to be from an increased proportion of renewable electricity generation compared to what might happen in the absence of the ETS.

2.31 According to the 'Renewables 2010 global Status Report', compared to other developed countries, New Zealand has relatively few renewable energy promotion policies.[24] Of the 10 policies listed in the report, New Zealand has just 2 compared to, for example, 8 in Denmark, 7 in Japan and 6 in Poland. Out of a list of 41 countries, New Zealand is joint 5th from bottom. While New Zealand is if course ahead of all these countries when it comes to the proportion of electricity generated from renewable sources, the current approach suggests complacency. Perhaps the greatest omission is the

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[22] Although not clear from this statement, WWF-NZ assumes the target is 50% below gross 1990 emission levels rather than 50% below net 1990 emission levels as gross 1990 emissions has been the baseline previously used by the Government.

[23] NIWA. (2009). *New Zealand's EnergyScape: EnergyScape basis review Section 2 – Renewable Resources*. June 2009. Auckland, National Institute of Water and Atmospheric Research. http://www.niwa.co.nz/__data/assets/pdf_file/0006/95523/EnergyScape-Basis-Review-Section-2-_Renewables__E.pdf#Renewable%20resources

[24] REN21. (2010). *Renewables 2010 Global Status Report. Renewable Energy Policy Network for the 21st Century*. http://www.ren21.net/globalstatusreport/REN21_GSR_2010_full.pdf

lack of a feed-in tariff to encourage increased distributed electricity generation, despite the recognition in the draft strategy that a desirable long term future for New Zealand is one where *"Distributed generation and new sources, such as marine energy, result in a more robust system."*

2.32 According to the 2010 global status report on renewable energy, *"At least 83 countries have some type of policy to promote renewable power generation. The most common policy is the feed-in tariff, which has been enacted in many new countries and regions in recent years. By early 2010, at least 50 countries and 25 states/provinces had feed-in tariffs, more than half of these adopted only since 2005. Strong momentum for feed-in tariffs continues around the world as countries continue to establish or revise policies. States and provinces have been adopting feed-in tariffs in increasing numbers as well."*[25]

2.33 At the moment, in New Zealand, oil accounts for 50% of total consumer energy demand while wood accounts for just 7%.[26] However, evidence exists from other parts of the world that wood (or other biomass) can play a greater role. The 2010 global status report on renewable energy states that, *"In 2009, for the first time, biomass's share of energy production in Sweden exceeded that of oil, 32 to 31 percent."*[27] Most of this is for what is known as the district heat sector with some also being used for electricity generation and for transport fuels. District heating involves a power plant converting an energy source (in this case biomass) directly into water or space heating for nearby industrial and/or residential properties.

WWF-NZ recommendations on renewable energy and reducing emissions: electricity generation

To rectify the deficiencies outlined above, WWF-NZ recommends that MED:

10) Sets a clear, time-bound objective for emissions reductions in the energy sector and set out a strategy for achieving this objective.

11) Creates a clear strategy for achieving the 90% renewable electricity target, including a timeline of what is expected to be achieved between 2010 and 2025 so that progress can be monitored and policies changed depending on whether progress is beyond or behind expectations.

12) Transparently states what the expected impact of the ETS will be in the energy sector, including a breakdown of what can be expected in transport and electricity generation and including any assumptions that are made regarding the 'business as usual scenario' in the absence of the ETS.

13) Sets out what complementary policies will be needed, in addition to a more effective price on carbon, to achieve emissions reductions and increased renewable electricity generation. WWF-NZ urges the Government to adopt, amongst other things, a 'feed in tariff' as one measure that can help stimulate increased renewable electricity generation.

14) Sets an objective for distributed electricity/heat generation and develop a plan for achieving this, including policies such as 'feed-in-tariffs'. WWF-NZ also urges the Government to investigate the potential for biomass to provide district heating in New Zealand.

[25] REN21. (2010). *Renewables 2010 Global Status Report. Renewable Energy Policy Network for the 21st Century.* http://www.ren21.net/globalstatusreport/REN21_GSR_2010_full.pdf
[26] http://www.med.govt.nz/upload/73585/EDF%202010.pdf (see pages 26 & 27)
[27] REN21. (2010). *Renewables 2010 Global Status Report. Renewable Energy Policy Network for the 21st Century.* http://www.ren21.net/globalstatusreport/REN21_GSR_2010_full.pdf

Renewable energy and reducing emissions: transport

2.34 In terms of the transport sector, in 2007 the MED projected that annual greenhouse gas emissions would increase by approximately 4 million tonnes CO_2e between 2010 and 2020.[28] More recent projections from the Government's fifth national communication to the United Nations Framework Convention on Climate Change (UNFCCC) estimate this transport sector increase will be just over 1.6 million tonnes.[29] The MED study estimates that even a carbon price of NZ$50 per tonne CO_2e would have a negligible impact on the projected increase in transport emissions.[30] The best estimate that can be gleaned from the fifth national communication is that the ETS will result in 91,000 tonnes (91 Gg) CO_2e transport sector emissions reductions below business as usual.[31] This is equivalent to just 5.7% of the projected increase in transport sector emissions.

2.35 The ETS will clearly not achieve significant transport sector emissions reductions. This increases the importance of other, complementary, transport sector policies. According to the draft strategy, *"Policies such as fuel efficiency labels on vehicles, biodiesel production grants and support for electric vehicles will help to reduce transport emissions."*

2.36 New Zealand's vehicle fleet is one of the largest (per head of population) and also one of the oldest and most inefficient in the industrialised world. According to a January 2008 consultation document produced by the Ministry of Transport, *"The light vehicle fleet has grown significantly over the past decade; there has been a 22 percent increase in light vehicle numbers between December 2000 and December 2006. There were 2.9 million light vehicles registered in New Zealand in December 2006. The average age of vehicles in the light fleet is 12 years, which is old by international standards."*[32]

2.37 The government's fifth national communication to the UNFCCC estimates that, by 2020, vehicle fuel economy labeling will save 43,000 tonnes CO_2e emissions per year[33] – just 2% of the latest projected increase in transport emissions. In contrast, according to research by the Green Party, regulating average Vehicle Fuel Economy Standards (VFES) for imported light vehicles has the potential to save 3 million tonnes CO_2e emissions per year by 2020.[34] Yet a planned VFES scheme was abandoned in 2009.

2.38 No estimates were provided in the fifth national communication for the impact of the electric vehicles tax break and the biofuel subsidy (presumably due to the uncertainty concerning their duration). The draft strategies mention the biodiesel grant scheme and the exemption for light electric vehicles from road user charges several times (specifically on page 13, page 18 and implied on page 22) suggesting that these policies are a major part of the Government's response to the energy challenges facing New Zealand. However, their likely impact will be negligible.

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[28] MED. (2007). *Benefit-Cost Analysis of the New Zealand Energy Strategy*. November 2007. Ministry for Economic Development. Page 6-3

[29] Ministry for the Environment. (2009). *New Zealand's Fifth National Communication under the United Nations Framework Convention on Climate Change*, Wellington: Ministry for the Environment.

[30] MED. (2007). *Benefit-Cost Analysis of the New Zealand Energy Strategy*. November 2007. Ministry for Economic Development. Page 6-4

[31] Total transport sector emissions reductions below business as usual are projected to be 133,800 tonnes (133.8 Gg) CO_2e (see page 103 of the 5th National Communication). The fuel economy labeling scheme is expected to account for 43,000 tonnes of this. WWF-NZ therefore assumes the ETS is expected to account for the remainder.

[32] MoT. (2008). *Improving the fuel economy of vehicles entering he New Zealand fleet: A Discussion Paper For Public Comment*. January 2008, Wellington, Ministry of Transport.

[33] Ministry for the Environment. (2009). *New Zealand's Fifth National Communication under the United Nations Framework Convention on Climate Change*, Wellington: Ministry for the Environment.

[34] Leckinger, R & Fitzsimons, J. (2009). Getting there: big affordable climate change target in sight. Wellington, Green Party. http://www.greens.org.nz/sites/default/files/BigAffordableClimateChange_1.pdf

2.39 In the first eleven months of operation (July 2009 – May 2010), an average of 44,620 litres of biodiesel were covered by the Biodiesel Grant Scheme,[35] which is roughly equivalent to 38 tonnes of fuel.[36] Extrapolating this average over a whole year equates to 456 tonnes per year. Total oil consumption[37] in NZ in 2008 was: 5,737,000 tonnes. At this rate, Biodiesel covered by the scheme would comprise 0.008% of total NZ oil consumption.

2.40 A major limitation is the feedstock that is available, and while the grant scheme looks to be a useful way of helping processors make use of existing feedstocks such as waste oils, it is highly unlikely that it will stimulate a step-change in feedstock production. It is likely that recent changes to the scheme[38] will increase the amount of biodiesel being produced although the continued focus of the grants on fatty-acid methyl esters (vegetable oils or animal fats reacted with methanol) will limit the domestic feedstock to canola and waste oils/fats, which will continue to limit the quantities produced.[39]

2.41 The UK, with a much higher population and therefore much less land area available than New Zealand, manages to produce some 500 million litres of biodiesel.[40] According to the Bioenergy Association of New Zealand, this country produces a little over 4 million litres of biodiesel.[41] Research by NIWA and SCION, and research by the Parliamentary Commissioner for the Environment has highlighted the potential for New Zealand to produce significant quantities of biodiesel from wood.[42,43] This potential is not mentioned or explored in the draft strategy.

2.42 According to the Regulatory Impact Statement on the exemption of electric vehicles from Road User Charges, there were only 23 vehicles in the whole of New Zealand that qualified for the exemption in 2009.[44] The scheme will expire at the end of 2012 (unless an extension is implemented after the policy is reviewed) by which time the impact statement predicts 127 electric vehicles in New Zealand with combined annual revenue foregone in road user charges of $60,466. The total cost of the scheme (revenue foregone) over its four year duration is projected to be less than $105,000. $105,000 is less than 0.002% of the Government's planned spending on roads.[45]

2.43 In 2008 the light passenger vehicle fleet grew by 3,427 cars.[46] If this growth continues at the same rate we can expect an additional 13,708 cars on the road by the end of 2012. Electric cars, assuming the predictions are correct, will account for less than 1% of this increase in light vehicle numbers. It is likely therefore that the current projected increased numbers of electric cars will do virtually nothing to counteract a rising emissions trend let alone contribute to an overall reduction of emissions on existing, or 1990 levels.

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[35] See: http://www.eeca.govt.nz/node/6059 (viewed, July 2010)
[36] Although exact measurements will vary depending on the fuel type and its temperature, a rough estimate has been made based on 1 tonne of diesel being equivalent to 1176.47 litres. See: http://forum.onlineconversion.com/showthread.php?t=71
[37] This includes, petrol diesel, domestic aviation fuel, fuel oil, liquid petroleum gas and other petroleum products.
[38] Brownlee, G. (2010). *Biodiesel Grants Scheme to be extended*. Media Release. 5 July 2010. http://www.beehive.govt.nz/release/biodiesel+grants+scheme+be+extended
[39] PCE. (2010). *Some biofuels are better than others: Thinking strategically about biofuels*. 29 July 2010. Wellington, Parliamentary Commissioner for the Environment.
[40] REN21. (2010). *Renewables 2010 Global Status Report. Renewable Energy Policy Network for the 21st Century*. http://www.ren21.net/globalstatusreport/REN21_GSR_2010_full.pdf
[41] See: http://www.bioenergy.org.nz/liquid_biofuels_about.asp
[42] NIWA. (2009). *New Zealand's EnergyScape: EnergyScape basis review Section 2 –Bioenergy Resources*. June 2009. Auckland, National Institute of Water and Atmospheric Research. http://www.niwa.co.nz/__data/assets/pdf_file/0008/95921/EnergyScape-Basis-Review-Section-3-_Bioenergy__B.pdf
[43] PCE. (2010). *Some biofuels are better than others: Thinking strategically about biofuels*. 29 July 2010. Wellington, Parliamentary Commissioner for the Environment.
[44] See: http://www.transport.govt.nz/about/functions/Documents/RIS%20-%20RUC%20Amendments%202009.pdf
[45] $140,000 as a percentage of $6.5 billion.
[46] Ministry of Transport. New Zealand Vehicle Fleet Statistics 2008: http://www.transport.govt.nz/research/NewZealandVehicleFleetStatistics/

2.44 In order to achieve a significant reduction in transport sector emissions, not only is a more effective carbon price required, but also a range of other complementary policy measures is essential to augment the price signal. WWF-NZ is not alone in advocating a range of complementary transport sector policies to reduce emissions. According to the Ministry for the Environment's 2009 Departmental Report on the review of the Emissions Trading Scheme, *"Several submissions suggested non-price-based measures relating to transport, including increased investment in public transport, coastal shipping and alternative modes as part of the land transport programme, and ceasing to use public funds to extend roading. BP* [British Petroleum] *[181] submitted that the liquid fossil fuels sector of the emissions trading scheme needs to be supported with a comprehensive package of measures across all aspects of the transport sector. Similarly, Shell New Zealand [105] recommends regulatory intervention in the transport sector, including vehicle efficiency standards, incentives for low-carbon fuels, and measures to influence driver behaviour and transport prices. Shell noted that carbon price alone is unlikely to create behaviour changes in the transport sector because of the relatively low elasticity of demand."* [47]

2.45 Finally, if New Zealand is to achieve emissions reductions and a significant shift towards a renewable energy system, particularly in the transport sector, there will need to be a concerted research and development effort. However, while the draft strategy on the one hand states that *"The Government will facilitate the swift uptake of <u>new</u> energy technologies within New Zealand"* (underlining added), it subsequently makes clear that, *"The Government will prioritise research funding to areas based on New Zealand's resource strengths and unique characteristics, and where there is commercial potential. In the immediate term, Government research funding will support research to improve petroleum and mineral extraction, energy security and efficient and affordable energy use. Research in the areas of bioenergy and geothermal energy are also priorities."*

2.46 Continuing to prioritise public investment in petroleum and mineral extraction research and development makes little sense in a strategy that needs to address the twin challenges of increasing oil prices and the need to reduce greenhouse gas emissions.

WWF-NZ recommendations on renewable energy and reducing emissions: transport

To rectify the deficiencies outlined above, WWF-NZ recommends that MED:

15) Sets a clear objective for transport sector emissions reductions.

16) Is transparent about the negligible contribution that will be made by current policies (ETS, fuel economy labeling, biofuel grant scheme and tax exemption for electric vehicles) to reducing transport sector greenhouse gas emissions.

17) Develops a plan to augment a more effective carbon price with a range of complementary transport-sector measures including, for example:

- Further investment in public transport
- Encouraging freight onto railways and coastal shipping
- Vehicle fuel economy standards
- Investment in the development of low carbon liquid fuels
- Prioritising research that facilitates the required transition away from fossil fuels

[47] MfE. (2009). *Departmental Report on the Emissions Trading Scheme Select Committee Review*. June 2009. Wellington, Ministry for the Environment. http://www.parliament.nz/NR/rdonlyres/1C5F582D-9BA9-4A4E-BD3B-76F286F1F622/113508/Departmentalreport_3_1.pdf

3. Do you have other comments?

Affordable energy and fuel poverty

3.1 Fuel poverty can be defined as those who need to spend more than 10% of total household income on heating their home to the World Health Organisation recommended healthy living temperature of 18-21C°. Based on 2001 data, it has been estimated that 10 – 14% of New Zealand households are fuel poor.[48] In some regions of New Zealand, the figure is certainly much higher.[49] The issue is therefore significant for a large number of people.

3.2 However, the draft strategy does recognise that, *"Around two thirds of New Zealand homes are poorly insulated or not insulated at all. These homes can be costly to heat and can lead to health problems for the occupants."* Improving insulation is one of the more effective ways of addressing the fuel poverty issue. The strategy also mentions the 'Warm up New Zealand: Heat Smart' programme to which it has committed over $340 million over a four year period. It is expected that this scheme will help improve insulation in at least 186,500 homes, 70,000 of which will be lower income households.

3.3 This commitment is welcome but the draft strategy does not set out what the Government's intention is beyond the four year duration of the programme. According to the Energy Efficiency and Conservation Authority (EECA), there are approximately 900,000 homes in New Zealand that lack adequate insulation.[50]

WWF-NZ recommendations on fuel poverty

To rectify the deficiencies outlined above, WWF-NZ recommends that MED:

18) Sets out the Government's medium and long term objectives for the remainder of the 900,000 homes in New Zealand that will not be reached by the Heat Smart programme so will continue to lack adequate insulation.

19) Signals an intention in the strategy to develop a fuel poverty plan in New Zealand that would set out how the Government will address the problem (i.e. what its plans are over the coming years to reduce fuel poverty in addition to the Heat Smart programme).

Environmental responsibility

3.4 The draft strategy states that New Zealand will focus on *"best practice in environmental management for energy projects"* and goes on to say that *"'Best practice' can mean a number of things. Here it is meant to convey that New Zealand will strive to maintain our good environmental record internationally."* This statement is ambiguous to say the least and as such is not something against which progress can effectively be monitored.

3.5 The draft document makes no mention of any strategy regarding environmental safeguards concerning:

- offshore petroleum exploration and mining
- coal mining

[48] Lloyd, B. (2006). Fuel Poverty In New Zealand. *Social Policy Journal of New Zealand*. Issue 27. March 2006.
[49] See, for example: Rudd, A. (2008). Dunedin homes suffer 'fuel poverty'. *Otago Daily Times*. 7 June 2008. http://www.odt.co.nz/news/dunedin/8763/high-home-heating-costs-lead-039fuel-poverty039
[50] See: http://www.eeca.govt.nz/node/3107

- methane hydrates exploration and extraction

3.6 Given the fact that a decision has been taken to include expanding fossil fuel exports as part of the draft energy strategy, these omissions are a major concern.

WWF-NZ recommendations on environmental responsibility

At the moment, the environmental responsibility section of the draft strategy seems like window dressing. To rectify the deficiencies outlined above, WWF-NZ recommends that MED:

20) Clearly defines 'best practice'. If achieving 'best practice' is to be the objective, a much clearer definition than 'maintaining New Zealand's good international reputation' is required.

21) Sets out a strategy for developing (where necessary), monitoring and enforcing environmental safeguards in:

- petroleum exploration and extraction
- coal mining
- methane hydrates exploration and extraction

Draft Energy Efficiency and Conservation Strategy

4. Does the draft NZEECS clearly explain the Government's policy and priorities for promoting energy efficiency, energy conservation and renewable energy over the next five years? What do you consider are the priorities?

4.1 An important point to make is that the draft NZEECS does not set out any rationale as to why the existing EECS needs to change. In the absence of any obvious reason why the existing EECS is inadequate and needs to be replaced, WWF-NZ considers the process of re-writing it to be a waste of time. Although bereft of clear objectives, the draft Energy Strategy looks to be a clear departure from the existing Energy Strategy, whereas the draft EECS retains many of the same high level goals as the existing EECS but strips out most of the policies and programmes aimed at achieving these goals.

4.2 If the intention is to achieve most of the same objectives as the existing EECS, nowhere in the draft is there an explanation as to why the existing strategy has too many policies and programmes and why significantly less effort is now needed to reach the same end points.

4.3 The Energy Efficiency and Conservation Act 2000 requires that the EECS must state, amongst other things, the *"means by which…policies and objectives, and any such targets, are to be achieved."* The draft EECS fails to do this, mentioning only 9 policies and programmes compared to 130 in the existing EECS. The draft EECS is therefore not a credible document.

WWF-NZ recommendation on the draft EECS

22) The existing NZEECS remains in force until or unless a credible alternative strategy is produced. If the Government plans to do very little to encourage energy efficiency in New Zealand, the level of ambition in the objectives and targets therefore needs to be revised downwards to reflect this minimal effort.