

I hope that the serious concerns raised by everyone at the meeting have been accurately recorded and will be reported not only to Ministry staff, but to the Ministers themselves.

Discussion document questions

I will not spend much time answering the questions in the discussion document, as I find the worldview and policy they imply to be unhelpful. They have clearly been formulated to channel submitters' responses to shape a predetermined and outmoded narrative. The body of my submission makes my opinion of this outlook evident. I have no desire to funnel my response into a form that will be used as nothing more than a number to stick in a cabinet briefing about how many New Zealanders thought it was too hard to do anything. This would be used only to justify the Government's cowardly and outmoded stance on this vital issue.

Nevertheless, to avoid my submission being relegated to some meaningless waffle in the category of "other" responses in the summary of submissions, I provide brief responses to each of these questions in Appendix 1 of this submission. The rationale for these responses is set out in the body of my submission below.

Justification for inaction

That the Government is well aware of the problem of climate change and the inadequacy of responses is clearly stated in the discussion document: *"To date, action to reduce greenhouse gas emissions across the world has not been strong enough."*

However, it then goes on to make it clear that the Government has absolutely no intention of doing anything to cut our greenhouse gas emissions and take the level of action on climate change that is urgently needed. The tone of the discussion document makes it clear that it seeks only to justify the Government's existing position.

Discussion document fallacies

There are so many fallacies and ridiculous assertions in the document, that I don't have time to go into them all. Neither is it the best use of the Ministry's time to defend them.

However, I do wish to note several statements that are so blatantly untrue that it would be negligent to let them pass.

"New Zealand is already recognised as a constructive global player."

This cannot possibly be true, given that we withdrew from any commitment to the Kyoto Protocol in 2012, our emissions have risen 42% since 1990, and are on track to exceed these

levels by 50% in the near future. Our greenhouse gas emission rate is the fourth highest per capita in the world.²

At the [Lima Climate Change Conference](#) in 2014, New Zealand was named among the world's worst performing countries on climate change.³

"We are committed to doing our fair share and taking responsibility for our emissions...."

This is a total lie when measured against current and proposed Government policy.

Reducing our agricultural emissions is *"challenging given that the world needs more food"*.

This is a ridiculous statement. A large proportion of these emissions come from dairy farming, which can hardly be characterised as an altruistic activity for feeding the hungry. The current agribusiness model of intensive dairy farming has already been demonstrated to be environmentally damaging, not only in terms of greenhouse gas emissions, but also its serious adverse effects on water quality and ecology throughout New Zealand. The sector is becoming debt ridden and is both environmentally and economically unsustainable in the long term. It cannot be characterised as a contribution to solving world hunger.

"Setting a target, to apply 10 to 15 years from now, is challenging given the uncertainties in the new agreement and what might be economically and technologically possible over the coming decade."

This is a fatalistic and unhelpful approach. The point of setting a target is that you then make a plan for how to get there. The nature of the target determines what is economically and technologically possible. We don't have time to sit around waiting to see what happens. We have, at most, fifteen years in which this problem can be mitigated to prevent a total disaster. Actions need to commence within the next two years if we are to have any hope of turning the tide. International effort and commitment from everyone is needed, and collectively will determine what is economically and technologically possible

² <http://www.sciencemediacentre.co.nz/2014/04/14/ipcc-report-on-mitigating-climate-change-experts-respond/>

³ <http://www.sciencemediacentre.co.nz/2014/12/10/nz-scores-poorly-in-climate-change-report/>

"When we table New Zealand's contribution, other countries are likely to assess whether it represents a 'fair' contribution to the global effort. As countries have different circumstances (or capacities to reduce emissions), the effort required to achieve the same level of emissions reductions varies significantly from country to country.

There are also expectations that certain countries should do more than others (eg, those with higher emissions per person, or higher income) and that developed countries should show leadership."

These statements are very true. When measured against these tests, New Zealand's current cowardly climate policy becomes indefensible. The Government's current policy will certainly not be judged on the world stage as being 'fair' or doing our share. We have substantial capacity to reduce our greenhouse gas emissions (discussed later in my submission). We can do this with substantially less effort than other nations, such as European countries, which have pledged sizeable reductions in their emissions despite having a large proportion of their electricity generated by coal-fired power stations.

It would be comparatively easy for New Zealand to transition to a low carbon economy – in fact, we could achieve a zero emissions economy well before many other countries in the world. We could lead the way and be a model of what is possible, providing both inspiration and technological solutions for other nations. Instead, the New Zealand Government appears to prefer to stumble back into the gloom of the 19th century.

By the document's own tests in the statement above, there will be justifiable international expectations for New Zealand to reduce our greenhouse gas emissions, given our high per capita emissions. The Government's position that we have some 'unique circumstances' preventing us reducing emissions further is inexplicable.

On what grounds could we justify getting away with a lower target than, say, the European Union? How can we expect others to make the kind of meaningful cuts in emissions that are necessary, if we say it's all too hard?

"Setting an international target means the economy will grow more slowly than it otherwise would". "More ambitious targets will have a higher cost."

This is utter nonsense. What is the evidence for these assertions? The document provides no evidential basis underpinning this whatsoever. It is not informed by even a passing reference to the numerous international studies, which show the clear economic benefits of transitioning to a low carbon economy - and that the necessary changes can be made now, with existing technology, and are affordable.

It is nonsensical to make these kinds of specious statements about future costs. It is nothing more than yet another poorly disguised justification for the Government's policy of doing nothing. It has clearly been produced only to support the claim that reducing New Zealand's contribution to climate change is too expensive.

If anything is certain, it is that the world in 2030 will not be like that of today. Economic outcomes and performance cannot be predicted accurately in the rapidly changing world created by climate change. The New Climate Economy Report, to which I recommend the Government pay closer attention (see below), states that "***it will not be business as usual***".

Feasible and affordable

The New Climate Economy Report (September 2014)⁴ concludes that "***countries at all levels of income now have the opportunity to build lasting economic growth at the same time as reducing the immense risks of climate change. This is made possible by structural and technological changes unfolding in the global economy and opportunities for greater economic efficiency. The capital for the necessary investments is available, and the potential for innovation is vast. What is needed is strong political leadership and credible, consistent policies.***"...(emphasis added).

All that stands between us and a safer climate future are politicians like those of the New Zealand Government.

That the Ministry for the Environment is aware of these conclusions was confirmed at the Rotorua consultation meeting, where the landmark New Climate Economy Report was referred to briefly by officials. The Government therefore has no excuse for ignoring these findings and acting upon them.

⁴The Global Commission on the Economy and Climate (2014). *New Climate Economy Report*. Washington, USA

In the light of these findings, it is clear that the New Zealand Government's current climate position, and complaints that it's all too hard, cannot be supported. It is antediluvian (so to speak) and hopelessly out of date.

However, the discussion document is written as if such work does not exist. It appears that the Government is ignorant of the internationally recognised conclusions about the ability to implement affordable actions to reduce emissions now. I therefore quote the key conclusions of the report below.

These recommendations could be readily implemented in New Zealand to create a credible and robust climate policy, which would also bring economic and social benefits.

New Climate Economy 10-point Global Action Plan: key recommendations.

- 1. Accelerate low-carbon transformation by integrating climate into core economic decision-making processes.** This is needed at all levels of government and business, through systematic changes to policy and project assessment tools, performance indicators, risk models and reporting requirements.
- 2. Enter into a strong, lasting and equitable international climate agreement, to increase the confidence needed for domestic policy reform,** provide the support needed by developing countries, and send a strong market signal to investors.
- 3. Phase out subsidies for fossil fuels and agricultural inputs, and incentives for urban sprawl,** to drive more efficient use of resources and release public funds for other uses, including programmes to benefit those on low incomes.
- 4. Introduce strong, predictable carbon prices** as part of good fiscal reform and good business practice, sending strong signals across the economy.
- 5. Substantially reduce capital costs for low-carbon infrastructure investments,** expanding access to institutional capital and lowering its costs for low-carbon assets.
- 6. Scale up innovation in key low-carbon and climate-resilient technologies, tripling public investment in clean energy R&D** and removing barriers to entrepreneurship and creativity.

7. Make connected and compact cities the preferred form of urban development, by encouraging better-managed urban growth and prioritising investments in efficient and safe mass transit systems.

8. Stop deforestation, by strengthening the incentives for long-term investment and forest protection,

9. Restore lost or degraded forests and agricultural lands by 2030, strengthening rural incomes and food security.

10. Accelerate the shift away from polluting coal-fired power generation, phasing out new unabated coal plants in developed economies immediately and in middle-income countries by 2025.

The report goes on to say that:

“The first six recommendations provide the conditions necessary for a strong and credible framework to foster low-carbon and climate-resilient investment and growth. The last four point to vital opportunities for change which can drive future growth and lower climate risk in cities, land use and energy systems.

*“Implementation of the policies and investments proposed in this report could deliver at least half of the reductions in emissions needed by 2030 to lower the risk of dangerous climate change. With strong and broad implementation, rapid learning and sharing of best practice, this number could potentially rise to 90%. **All the measures would deliver multiple economic and social benefits, even before considering their benefits to climate.**”*

Such benefits include:

*“**Greater energy security, less traffic congestion, improved quality of life, stronger resilience to climate change and environmental protection. Many can help reduce poverty**”*

These are all items of which New Zealand is in need. The report also demonstrates that:

“Managed well, the additional investments in infrastructure needed to make the transition to a low-carbon economy will be modest. ... Many countries are now recognising the costs of a high-carbon model of development.

Risks from inaction

The discussion document seriously downplays the risks posed by runaway climate change. An increase in temperature of 4 degrees Celsius, which the document contemplates as a possible outcome, would be catastrophic. The two degrees Celsius increase we hope to be able to hold to is far from being a ‘safe level’, as it was inaccurately characterised by officials at the Rotorua meeting. It is more like a threshold we cannot cross if we are to have any hope of continuing to maintain a stable climate compatible with human welfare and functioning planetary ecosystems.

Even so, we have no hope of attaining this modest target on the basis of our current emissions. We are currently on track for a 4 or 5 degree C temperature rise.^{5,6} This is incompatible with life on earth as it currently exists – for both humans and nature.

How are we, as collective humanity, to limit the increase in global average temperature to two degrees if all the countries in the world say they need special treatment? All countries have their own circumstances. We have all contributed to climate change – especially those of us in the developed world. To NOT reduce our emissions is criminal.

We need to act now, and have very little time left. To quote again from the New Climate Economy Report:

*“Climate change caused by past greenhouse gas emissions is already having serious economic consequences, especially in more exposed areas of the world. **Without stronger action in the next 10-15 years, which leads global emissions to peak and then fall, it is near certain that global average warming will exceed 2°C, the level the international community has agreed not to cross. On current trends, warming could exceed 4°C by the end of the century, with extreme and potentially irreversible impacts. By building up greenhouse gas concentrations and locking in the stock of***

⁵ The Global Commission on the Economy and Climate (2014). *New Climate Economy Report*. Washington, USA

⁶ Shiogama H, Ogura T. Climate science: Clouds of uncertainty *Nature* (2014) 505: 34–35

high-carbon assets, delay in reducing emissions makes it progressively more expensive to shift towards a low-carbon economy.

That the Government is aware of this is clearly demonstrated by Figure 1 in the discussion document. This clearly shows that if we continue ‘business as usual’, we will have exceeded any hope of staying below the two degree threshold by 2035. This makes it clear that the Government understands the severity of this threat. Yet it is completely unwilling to do anything to avoid it.

New Zealand’s climate policy – moral bankruptcy on the world stage

It is hard to take any statements acknowledging these risks seriously from a Government that is actively promoting oil and gas exploration. Work by the International Energy Agency has found that two-thirds of the fossil fuel reserves that have already been discovered cannot be burnt if the planet is to stay within the two degree threshold countries have agreed must not be exceeded if we are to avoid the more catastrophic effects of climate change.⁷

This finding has been supported and further refined by subsequent studies, including an important paper published early in 2015⁸ that further quantified the percentage of different types of fossil fuels that need to be left in the ground (or under the sea), concluding that:

“Policy makers’ instincts to exploit rapidly and completely their territorial fossil fuels are, in aggregate, inconsistent with their commitments to this temperature limit. Implementation of this policy commitment would also render unnecessary continued substantial expenditure on fossil fuel exploration, because any new discoveries could not lead to increased aggregate production.”

It is therefore completely irresponsible of the Government to continue to promote fossil fuel exploration in New Zealand and our Exclusive Economic Zone (EEZ). The fact that it continues to encourage– and subsidise – such activity, makes it clear that the Government has no intention whatsoever of taking any action to cut greenhouse gas emissions.

Rather than formulating responsible policy in accordance with this understanding, the Government is moving in exactly the opposite direction, pursuing and encouraging fossil fuel

⁷ International Energy Agency (2012). World Energy Outlook 2012.

⁸ McGlade C, Ekins P. The geographical distribution of fossil fuels unused when limiting global warming to 2 °C. *Nature* 517, 187–190 (08 January 2015)

exploration and production. So long as this activity continues, the New Zealand public can have no faith in anything the Government says about taking climate change threats seriously.

I am appalled that this Government is so captured by the self-interest and greed of multinational corporations, and a small number of the very wealthy, that it is taking no action on the most important issue of our time. In fact, the Government is exacerbating the problem by aggressively promoting oil and gas exploration.

Lame excuses and costly inaction

The discussion document does not do justice to the importance of the issue, nor the breadth of solutions and positive outcomes – both environmental and economic – that are possible with a more visionary climate policy. There are many highly important questions that the document fails to consider.

Here are some questions I would like to see addressed before setting an emissions reduction target, so that New Zealanders can have some confidence that the Government has considered policy options and actions properly.

- What is the cost to the NZ economy of taking no action?
- What is the cost to the NZ economy of being the last to take action on renewable energy and being left behind as a global pariah, in an industry we could have started ourselves?
- What is the cost to the NZ economy of being an international climate shirker - how could we have any credibility in trying to use the 'clean and green' brand again??
- What is the effect on NZ's economy of NOT participating in courageous international action?
- Where is the evidence that we cannot reduce our emissions enough and that our only option is to buy credits on carbon markets?

Solutions already available

In 2012, the International Energy Agency⁹ warned that:

“The climate goal of limiting warming to 2 °C is becoming more difficult and more costly with each year that passes. ...Almost four-fifths of the CO2 emissions allowable by 2035 are already locked-in by existing power plants, factories,

⁹ ibid

buildings, etc. If action to reduce CO2 emissions is not taken before 2017, all the allowable CO2 emissions would be locked-in by energy infrastructure existing at that time.

If it chose, the Government could take numerous steps domestically to reduce our greenhouse gas emissions right now, rather than locking in future carbon dioxide emissions. (For example, through its current roading policy).

Instead of moaning about what can't be done, how about starting work on things that can be? Just for starters, here are some things that the Government could begin work on immediately, which would begin cutting our greenhouse gas emissions in a very short period of time. They are comparatively easy, require very little funding (compared with the current business-as-usual scenario), and the technology already exists.

The Government talks a lot about how difficult it is to reduce our emissions because of the large proportion that come from agriculture. However, this is just one more excuse, which also makes the farming community sector unwitting champions of Government inaction. While a large proportion (48%) of our emissions come from agriculture, a similar proportion (43%) are predominantly carbon dioxide from other sectors¹⁰. These pose a much greater, long term threat to the world's climate.

While methane has a far higher global warming potential than carbon dioxide, it stays in the atmosphere for much shorter periods of time (approximately 12 years). Conversely, carbon dioxide persists in the atmosphere for centuries, if not millennia. Reducing carbon dioxide emissions is thus far more important for the long term health of the global atmosphere.

The purported lack of options for reducing methane emissions from agriculture means that the Government will need to compensate by taking stronger action to reduce carbon dioxide emissions. Fortunately, this is a far easier task, for which sufficient budget and technology already exist.

There is plenty of scope for New Zealand to reduce greenhouse gas emissions across a range of sectors. Here are a few suggestions.

¹⁰ Figure 2, discussion document.

Transport

- Stop building roads – particularly, the costly and outmoded ‘highways of national significance’.
- Invest heavily in public transport both in cities (particularly Auckland) and between main centres. The recent 22% increase in rail use in Auckland¹¹ shows that New Zealanders will use public transport if decent services are provided. The budget for transport solutions could be readily funded if the Government dropped its out-moded highway-building programme (noted above). These are a double whammy – not only do they prevent funding public transport, they also lock New Zealand into decades of fossil fuel emissions, by building infrastructure that makes it far more convenient to drive than to use public transport.
- upgrade the national rail network and start moving more freight by rail.
- stop treating long-distance rail travel as a tourist attraction (e.g. Auckland-Wellington). Introduce high speed electric trains between main centres to reduce the need for air travel. Improve train services and timetables for greater convenience of commuters and business travellers.

Agriculture and land use

- Stop Landcorp from converting forestry areas to dairy farms, particularly that currently underway in the Upper Waikato catchment. The carbon footprint for dairy is much higher than for most other farming activities. Recent work has found that the recent ‘dairy boom’ has in fact left many farmers saddled with debt, and their only way out is to continue environmentally damaging intensive practices.¹² Also, as noted earlier, the adverse effects of dairying on water quality are well recognised, and further farm conversion should not be encouraged, based on its effects on water quality alone.

¹¹ http://m.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11455130.

“In the 12 months to April 2015, rail use in Auckland increased 22 per cent ... Britomart Transport Centre would face serious congestion problems by 2018 if the "stunning acceleration" of rail use continued - meaning a gridlocked city rail system and increasingly crowded platforms for passengers. ... "At this rate, Auckland will meet the Government's patronage threshold for financial support for the CRL early in 2017, three years earlier than projected. Growth has been accelerating since late 2013," Mr Brown said.

¹² <http://www.radionz.co.nz/national/programmes/ninetonoon/audio/201756343/warnings-over-dairy-foreclosures>

- Retaining this land in forestry not only prevents the increase in emissions from the additional cows, it also sequesters carbon and can be used as an offset for existing greenhouse gas emissions from farming that we are not yet able to mitigate.
- Increasing the area of forestry is an active step that could be taken right now. This would allow additional offsets for farmers to continue current farming operations until the postulated ‘new technologies’ exist to enable farmers to decrease methane emissions from livestock.
- Provide incentives for forestry and improve economic and environmental policy settings to encourage foresters to plant greater areas in trees.

Fossil fuel exploration

- Stop all oil and gas exploration throughout New Zealand and the EEZ. Cancel all existing exploration and production permits and prohibit the granting of any more.
- Remove fossil fuel subsidies (e.g. tax breaks; using taxpayers’ money to provide research data, and to promote exploration). Under the National Government’s watch, annual fossil fuel subsidies have increased from \$6 million in 2009, to \$46 million in 2013¹³.

Renewable energy

- Build additional renewable energy infrastructure closer to Auckland, to accelerate the mothballing of Huntly power station. Since our energy strategy already commits us to obtaining 90% of our electricity from renewable sources by 2025¹⁴, this action will need to be taken anyway.
- It should also be noted that the much-quoted 80% renewable-sourced electricity does not apply every year, but can be lower in drier years. For example, in 2013 only 73% of NZ's electricity was generated from renewable sources.
- Since climate change will increase the duration and frequency of droughts, we need to plan for increasing renewable electricity generating capacity just to maintain the 80% level, let alone move to 90%.

The Government’s own climate change website states that:

¹³ World Wide Fund for Nature (2013). *Fossil Fuel Finance in New Zealand. Part 1: Government Support*. WWF-New Zealand

¹⁴

*“There is considerable potential to further develop renewable resources for electricity generation, replacement fuels for oil and gas and the production of direct heat”.*¹⁵

It is time for the Government to start taking action to further develop these renewable resources. As well as reducing emissions and contributing to energy security, this could also act as a stimulus for the economy and increase jobs.

Immigration policy

- Cut down immigration numbers. The discussion document cites our rapid population growth as one of the causes of our increase in greenhouse gases and another excuse for our so-called “special circumstances”. If it is so difficult for us to decrease our carbon emissions already, the last thing we need is more people coming into the country. Since our per capita greenhouse gas emission rate is the fourth highest in the world, we cannot argue that immigrants will be producing less carbon emissions than in their home countries. In fact, the reverse is true.
- The presentation at the Rotorua consultation meeting stated that New Zealand’s population has risen by 30% since 1990, compared with 18% in other developed countries. It also stated that immigration was the primary driver for this increase. Therefore, it would be logical to have a closer look at immigration policy to see whether modifications could be made as an additional lever to stop skyrocketing emissions.
- If we choose not to reduce the rate of immigration, we will need to take much stronger action on energy efficiency and conservation, as well as further investment in renewable energy. Otherwise, this shortfall will have to be filled by nonrenewable energy sources, further reducing New Zealand’s renewable share. If our population continues to grow at the current rate (due in part to an unsustainable level of immigration), additional renewable energy generation will be required just to maintain the current 80%, let alone the increase to 90% required by the Government’s renewable energy strategy.

This is yet another policy setting that could be used to reduce the pressure on farmers. If it is so difficult to reduce our emissions from agriculture, we need to work harder on other aspects of the economy and society where emissions reductions are already possible

¹⁵ <https://www.climatechange.govt.nz/reducing-our-emissions/government-policies.html>

Act now, or be left behind

It is my hope that other nations will be more courageous and forward-looking than the New Zealand Government, and move forward so that the planet is not pushed into apocalyptic climate breakdown. However, we cannot expect other nations to take these steps if we continue to hold back, making lame excuses for inaction.

All countries of the world need to come to the UN talks in Paris with meaningful commitments to finally take this threat seriously, and move to work on the solutions that already exist, immediately. If the New Zealand Government continues to hang back and make excuses for inaction, we risk one of two negative outcomes:

1. Other countries also make this sort of lame excuse for doing nothing. The Paris talks therefore fail to make any sort of agreement that is sufficiently courageous and effective, and the world is pushed into irreversible climate breakdown.
2. Other countries take action and move into a new future, while New Zealand continues to limp along with outmoded attitudes and technology. We therefore miss out on the developments that will come from embracing a new future, and lose our market advantage due to clinging onto polluting extractive industries whose time is long past.

It is therefore imperative that New Zealand contributes to building a new low carbon future, by taking an ambitious target to Paris in December 2015.

I used to be proud of being a New Zealander. When we declared ourselves nuclear free; the fact that we were among the first nations to give women the vote; when we fought for the underdog and punched above our weight. The current Government's climate policy makes me ashamed. This is a global problem to which we have all contributed. We all need to play our part to solve it. How can we expect other countries – particularly poorer nations and emerging economies – to decrease their emissions if we will do nothing ourselves?

Because that is what this discussion document, for all its vague references to the need to act, really says. The fact that our current emissions will exceed the already feeble target of being 5% below 1990 levels, shows that this whole process is a cynical exercise. I fear that the Government will not only go ahead and do nothing, but also use this consultation process to justify their inaction, saying that input from public consultation was one of the factors that informed emissions reduction target.

Furthermore, I am concerned about statements made at the consultation meeting and in the discussion document, that this is “just the beginning of a conversation”. This is yet another sign that the Government isn’t taking this issue seriously at all.

We don’t have time for stalling and talk fests as a substitute for action. Many of us have been gravely concerned about climate change and trying to have conversations with the Government about this for the past two decades. The time for talking is long past. We need to act decisively, bravely and positively, NOW.

I request that the New Zealand Government takes a meaningful emissions reduction target to the UN negotiations in Paris this December. Our target, at a minimum, should be:

40% emissions reduction (in net emissions) below 1990 levels, by 2030

We have very little time. As Ban Ki Moon, of the UN, has said, “We are the last generation that can stop runaway climate change.” I have a small niece and nephew, aged 5 and 7 respectively. They don’t get to make that choice, but they are the ones who will be left to deal with the mess if the world doesn’t act now.

This Government is doing nothing to safeguard their future. In fact, it is actively working towards destroying the climate and planetary ecosystems upon which we all depend. The Government has an obligation to safeguard the welfare of its citizens. Our children cannot do this for themselves. Nor can the public, if opposed at every level by the current Government’s outdated and irresponsible economic and environmental policy.

History will show whether John Key’s National Government acted in the long term interests of New Zealand, or of a small minority of the wealthy and powerful, and global fossil fuel corporations. At present it is clear that the latter is the only course this Government has any intention of pursuing. There is still time to change, but it is running out. Act now.

Nga mihi

Amanda Hunt MPhil(EnvSc)

Environmental Scientist and Aunt.

Encl: Appendix 1 (see over page)

Appendix 1: Responses to discussion document questions

Question 1

- I agree with objectives 1 and 3, as stated in the green text subheadings.
- I do not agree with objective 2, which is clearly a set-up for some mealy-mouthed sop to justify doing nothing.
- In addition, some of the wording in the more detailed text of objectives 1 and 3 is clearly there to provide an ‘out’ clause. In particular, I do not agree with the following phrases:
 - o “in light of our unique national circumstances ... electricity). This is just one more excuse for inaction.
 - o I disagree with the phrase in the title “‘over the long term’”. This should be deleted. I also disagree with the second half of paragraph 2, “while not impacting offshore.” We do not have time for the kind of procrastination that this wording attempts to justify.

Question 2:

I think that the justification which this question obviously is setting up for, is pathetic. We have great conditions for reducing emissions, and are in an enviable position to establish a low carbon economy. We have circumstances that many nations can only dream of when seeking to cut emissions. However, they have already committed to significant cuts, despite facing far greater hurdles. (e.g. the European Union – it will be far harder for European nations who rely so heavily on coal-fired power stations, to transition to renewable energy – yet they have committed to reduce emissions by 40% by 2030.) In light of this comparison, our only response should be to work even harder. I have outlined some of the ways in which this can be done, starting *today*, in my submission above.

Question 3

For numerous reasons outlined above, I think that the reference to cost in this question is simply another attempt to say it’s all too hard. For many reasons – which are well articulated in the New Climate and Economy Report – estimates of costs like these are irrelevant. If we want to continue to have a climate that sustains our civilisation, we have no choice. We have to act. And it will be far more expensive – not just for households, but for everyone – if we don’t act now. Costs to households will be the least of our problems if we stop being able to farm productively due to extreme weather events.

The New Climate Economy Report also points out that our future will not be business as usual, and this very much applies to both domestic and international economies. So the calculations in this part of the discussion document are unhelpful and irrelevant. Like so much else in the document, they are yet one more set up to make it look too hard and too expensive.

Question 4

The question of which of these are more likely to occur will be entirely determined by the Government's choices now. I have written on this topic in more detail above. All of these are possible and would have positive outcomes. They all important and I want them to all happen here.

However, none of them will occur under the Government's current laissez faire climate policy. As the New Climate Economy Report points out, the only barrier to bringing these opportunities about are policy choices of the type currently held by the current Government.

Question 5.

As for question 4. Future uncertainties should not even enter into the considerations, as the costs and technologies will be entirely determined by international and domestic policies made by the world's leaders right now. We can't leave it to the market, or to vague excuses like those in this discussion document. We have to act now.