Mercury welcomes the opportunity to provide feedback on the Ministry for the Environment’s discussion document “Our Climate Your Say!”. We support the introduction of a Zero Carbon Bill as a framework that has bipartisan support and is aimed at transitioning the New Zealand economy towards a low carbon future by setting the general direction for the future pathway well ahead of time. We support putting in place a clear process for setting a target for 2050 and for setting budgets that stretch well into the future. We also support the establishment of an independent Climate Change Commission to advise governments on key matters, such as the role and impacts for the electricity sector.

We strongly urge officials to carefully consider how to integrate the various strands of climate change policy to ensure coherence. In particular, the Zero Carbon Bill needs to mesh with any changes to the New Zealand Emissions Trading Scheme (NZ ETS) as set out in the Climate Response Act and associated regulations. It will also be crucial that wider government policy is aligned with climate change policy, for example environment, energy, transport and infrastructure policies. We have responded to the consultation questions in the attached submission form, prior to that we make some general comments relevant to setting climate change policy.

Renewable electricity generation will be crucial to our low-emissions future

One of the key findings of the Productivity Commission’s draft report into transitioning to a low-emissions economy was that an efficient and well-functioning electricity system will play a central role. New Zealand’s largely decarbonised electricity sector is a major advantage. Considerable scope exists to further increase the supply of electricity from renewable sources which will create opportunities to cost-effectively decarbonise other sectors of the economy, most notably in transportation and industrial process heat, where we currently rely on emissions-intensive energy sources.

There is a growing consensus that additional renewable electricity generation will be required as electricity becomes the fuel of choice in more sectors of the economy, particularly as the use of electric vehicles (EVs) becomes widespread. The Productivity Commission’s analysis suggests that nearly 50% more renewable electricity will be required by 2050 to power more EVs and shift process heat to electricity. Transpower in its Energy Futures Whitepaper (Te Mauri Hiko) estimates that electricity demand is likely to more than double from 40 TWh per annum to 90 TWh by 2050 requiring significant and frequent investment in both grid connected technologies such as wind and hydro and distributed technologies such as solar and batteries. EVs are expected to reach 40% of market share by 2030 and 85% by 2050.

Mercury estimates that the costs of delivering the required renewable generation by 2050 implied in the above analysis is around $20bn.

Co-ordinated stable and predictable policy and regulatory settings matter for securing cost-effective investment

2 Ibid pg5.
The opportunities that renewable electricity presents to achieve the Government’s net carbon zero by 2050 objectives do not come without risks and uncertainties. Meeting winter peak demand and balancing the system with more renewables will remain challenging and the stakes will be greater with more of the economy dependent on a secure supply of electricity.

It will be crucial to ensure that market and regulatory settings are stable and predictable to attract the $20b in capital required for new renewables investment given the long lead times for planning and building generation. We agree with the Transpower report which notes:

"Investors might also be deterred if they are not confident about the stability of policy or regulatory settings. Investors do not like uncertainty. In the absence of reliable assurances about long-term policy stability, investors could also be deterred by concerns about the possible introduction or absence of introduction of policies, for example, closing peaking thermal plants, incentivising distributed renewable generation, carbon charges, or changing market and pricing regulations."

Mercury notes that currently there are many moving parts reflecting different political imperatives that run the risk of inadvertently working against the government’s climate change objectives. For example, if wide ranging reforms to the currently highly efficient electricity wholesale market arrangements are proposed under the Government Electricity Price Review this may stifle capital flows into the sector and raise the costs of carbon abatement through the economy.

**Hydro generation will play an increasingly important supporting role for renewables expansion**

Hydro-generation will be critical for meeting the government’s climate change objectives. Large-scale renewable generation will increasingly be built from intermittent sources, like wind, which will need other significant sources of flexible generation that can quickly respond when the wind falls away. This flexibility role will increasingly be filled by hydro-generation. This is because the government’s recent ban of offshore oil and gas exploration means gas fired generation longer term will become increasingly uneconomic. Gas fired generation is currently the only other major provider of substantial flexibility in the electricity system.

The government’s commitment to the Powering Past Coal Alliance will also mean coal will be phased out for electricity generation by 2030. This will reduce the ability of fossil fuels to cost effectively and flexibly meet peak demand and support the development of future intermittent renewables, such as wind, as well as provide energy storage in the system for periods when our hydro lakes experience dry sequences.

Given the importance of hydro generation in supporting renewable expansion (and the achievement of the government’s net carbon zero target by 2050) it will be important to consider the interactions of other policy measures and objectives to ensure there are no unintended consequences. The Government’s Tax Working Group for example is considering environmental taxes on water users which if applied to hydro generation would raise electricity prices and the costs of carbon abatement across the economy. The Resource Management Act is also in the process of being reviewed along with freshwater quality policy (through amendments to the National Policy Statement Freshwater) and these initiatives could impact on renewable electricity generation investment and costs. There is also considerable uncertainty in the area of Iwi rights and interests in water.

**Analysis points to need for targeting renewable energy rather than electricity and effective carbon pricing**

It will be equally important to ensure the settings are not designed in a manner that increases the cost of producing electricity. We support the Productivity Commission’s view that pursuing policy goals such as 100% renewable electricity needs further consideration given the cost-effective role thermal sources of generation currently play in providing flexibility and energy storage as noted above.

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Overbuilding renewables to provide the same level of reliability and resilience afforded currently by thermal generation options runs the risk of unnecessarily raising electricity prices and, as the Productivity Commission noted, raising the costs of reducing emissions in other sectors which have the potential for far greater emissions reduction than electricity, which is already highly renewable.

The Productivity Commission's analysis indicates that electricity generation only represents around 6% of New Zealand’s total greenhouse gas emissions. In comparison emissions from transport are three times higher at 18% and this figure is even higher when process heat is included, (e.g. milk drying which uses coal for direct heat). This proves there would be much higher benefits for New Zealand in targeting renewable energy rather than electricity. Mercury strongly supports the Interim Climate Change Commission being given the scope to report back to the Climate Change Minister on the feasibility of a renewable energy target rather than being limited to reporting on how to achieve a pre-determined target of achieving 100% renewable electricity by 2035. As discussed above we consider that phasing out the last few percentage points of thermal generation will likely drive up electricity prices and limit emissions reductions in other sectors such as transport.

Encouraging optimal utilisation of renewable energy resources

In addition to effective emissions pricing, increased investment in renewable electricity generation could be facilitated by the Government removing any unnecessary barriers to the development of new renewable electricity generation and the ongoing ability to operate, upgrade and re-consent existing renewable generation. Central to this is the need to strengthen the National Policy Statement on Renewable Electricity Generation (NPS REG). This would include making it more outcome focused rather than process focused, better integration of generation outcomes with the management of environmental effects and specific direction to support the continuation and enhancement of existing renewable electricity generation including its connection to distribution and transmission networks. It is also important to consider how to better integrate the NPS REG with other national policy statements and other matters of national importance under Part 2 of the Resource Management Act, for example, landscape values. The direction set by any national policy statement must be reflected in regional and district plans which last around 10 years. This is as important for investment certainty as a Zero Carbon Bill encompassing an emissions reduction target and emissions budgets.
Other matters to address include the length of time for which consents can be granted. Use of water for hydro-generation assets can only be consented for a 35 year period yet the assets last far longer than this. Wind generation can be consented for a longer term, tends to have a shorter productive life but the infrastructure can be refurbished. With sites consented at a specific point in time to particular specifications there is not the flexibility to update plans to take account of changes in technology that may occur after a consent has been granted but before the asset has been built. Wind turbine technology, for example, is rapidly advancing so it would be preferable to have the flexibility to be granted a consent where the size of wind turbines can be subsequently amended without having to start the resource consent process from the beginning. A National Planning or Environmental Standard for wind farm noise would also assist in removing unnecessary debate over what is the acceptable standard for wind farm noise.

If you have any questions regarding our submission please contact Nick Wilson

Yours sincerely

PP

Tony Nagel
General Manager Corporate Affairs
Attachment Submissions form

We seek your feedback on the specific proposals in the Zero Carbon Bill.

Either email this submission to ZCB.Submissions@mfe.govt.nz (Microsoft Word document (2003 or later) or PDF) or post to Ministry for the Environment, PO Box 10362, Wellington, 6143.

1.1.1  Personal / organisation details

You must provide either a company name or given name(s)

Company name Mercury

Given names

Surname

Contact person Nick Wilson

Address

Region Auckland

Country New Zealand

Submitter type, pick one:

✓ Business / Industry

1.1.2  2050 target

1. What process should the Government use to set a new emissions reduction target in legislation?

Pick one:

☐ the Government sets a 2050 target in legislation now

☐ the Government sets a goal to reach net zero emissions by the second half of the century, and the Climate Change Commission advises on the specific target for the Government to set later.

Optional comment

Mercury has no specific comment there are pros and cons with both approaches. We note however that the Parliamentary Commissioner for the Environment recommended the latter approach on the basis it would give more time and flexibility for negotiating bi-partisan agreement for a New Zealand target with reference to the latest information regarding the response of other Paris signatories.

If the Government sets a 2050 target now, which is the best target for New Zealand?

Pick one:
Mercury agrees that any target should be net zero so that New Zealand can take advantage of tree planting offsets, this will be crucial for us to meet our target at the least possible cost. In principle, we believe it is important to address all greenhouse gases not just carbon dioxide given we are emitting significant levels of nitrous oxide and methane and there are co-benefits associated with reducing levels of these gases. If the Government chooses to distinguish between long-lived and short-lived gases in its target setting it will be crucial that methane is stabilised at a level that will make a significant difference to global warming this should be done with reference to the available science. If the Government decides to set targets for particular sectors Mercury strongly favours an economy wide energy target rather than a renewable electricity target for the reasons outlined in our main submission.

2. How should New Zealand meet its targets?

Pick one:

- **x** domestic emissions reductions (including from new forest planting) and using some emissions reductions from overseas (international carbon units) that have strong environmental safeguards.

Mercury believes New Zealand should utilise domestic emissions reductions including from new forest planting and from overseas where the carbon units from overseas have strong environmental safeguards. It is crucial that stakeholders are kept fully informed in a timely manner as to progress being made in international negotiations over the purchase of international carbon units to enable effective risk management and planning. In addition, some stakeholders have experience in carbon trading that could prove helpful.

3. Should the Zero Carbon Bill allow the 2050 target to be revised if circumstances change?

Pick one:

- **x** yes
- **☐** no.

Yes. We support including in legislation the ability to revise the target if circumstances change so long as there is clear drafting of the nature of any ‘circumstances’ and a transparent process for making the change so that any
Government doing so is clearly accountable. For example, we believe it makes sense to allow for changes in the event of a national disaster like the Christchurch earthquake or adjustments to atmospheric monitoring following a volcanic eruption. The circumstances would need to be sufficiently exceptional to warrant the impact on investment certainty. We do not have a view on whether there should be limitations on the range of change up or down either of side of the target.

1.1.3 Emissions budgets

4. The Government proposes that three emissions budgets of five years each (ie, covering the next 15 years) be in place at any given time. Do you agree with this proposal?

   Pick one:
   - [x] yes
   - [ ] no.

   Yes. We support, 15 years of forward planning is the minimum required to facilitate investment certainty.

5. Should the Government be able to alter the last emissions budget (ie, furthest into the future)?

   Pick one:
   - [ ] yes, each incoming Government should have the option to review the third budget in the sequence
   - [x] yes, the third emissions budget should be able to be changed, but only when the subsequent budget is set
   - [ ] no, emissions budgets should not be able to be changed.

   We support each incoming Government being able to review the third budget in the sequence. This strikes the right balance between flexibility and certainty for investment and accountability for Governments.

6. Should the Government have the ability to review and adjust the second emissions budget within a specific range under exceptional circumstances?

   Pick one:
   - [x] yes
   - [ ] no.
Yes so long as the definition of ‘exceptional circumstances’ is sufficiently tight to ensure that the budget cannot be changed for reasons of political expediency.

7. Do you agree with the considerations we propose that the Government and the Climate Change Commission take into account when advising on and setting budgets?

Pick one:

☐ yes

☒ no.

No. It is important to consider whether the target of achieving 100% renewable electricity generation by 2035 is appropriate versus setting an economy wide energy target. It is also important to consider how we will reduce our nitrous oxide and methane emissions given these make up a significant proportion of our emissions. The considerations flagged in the discussion document are taken from the UK model, the UK has a different emissions profile to NZ.

1.1.4 Government response

8. Should the Zero Carbon Bill require Governments to set out plans within a certain timeframe to achieve the emissions budgets?

Pick one:

☒ yes

☐ no.

Yes. This will assist with investment planning as it will give stakeholders a sense of how we will achieve our target.

9. What are the most important issues for the Government to consider in setting plans to meet budgets? For example, who do we need to work with, what else needs to be considered?

See our main submission. It will be important to ensure that Government policy does not inhibit investment in renewable electricity generation given the pivotal role renewable electricity will need to play in reaching our emissions target and meeting any budgets. The role of international emissions units and how/if we link the NZ ETS to international trading will also be an important consideration.
1.1.5 Climate Change Commission

10. The Government has proposed that the Climate Change Commission advises on and monitors New Zealand’s progress towards its goals. Do you agree with these functions?

Pick one:

☒ yes
☐ no.
☐

Yes. We support a CCC that advises and monitors. Ultimately the Government of the day is responsible for taking the final decision but we favour sufficient transparency so any deviation from CCC advice is published as this will help to hold the Government to account.

11. What role do you think the Climate Change Commission should have in relation to the New Zealand Emissions Trading Scheme (NZ ETS)?

Pick one:

☒ advising the Government on policy settings in the NZ ETS
☐ makes decisions itself, in respect of the number of units available in the NZ ETS.

We support the CCC advising the Government on policy settings in the NZ ETS.

12. The Government has proposed that Climate Change Commissioners need to have a range of essential and desirable expertise. Do you agree with the proposed expertise?

Pick one:

☐ yes
☒ no.

No. The CCC needs to include Commissioners with an understanding of the energy sector particularly electricity markets and experience in long term investment decision making given that renewable electricity generation will continue to play a crucial role in achieving NZ’s target and budgets.
1.1.6 Adapting to the impacts of climate change

13. Do you think the Zero Carbon Bill should cover adapting to climate change?
   Pick one:
   ☒ yes
   ☐ no

   Yes to the extent this is possible without creating issues of statutory interpretation. It may be preferable to amend specific legislation if this is required to give effect to climate change adaptation outcomes. For example, under the Resource Management Act local authorities have responsibilities around planning for natural hazards so if there is a need for more specific consideration of climate change impacts this may be best done via a National Policy Statement or Environmental Standard.

14. The Government has proposed a number of new functions to help us adapt to climate change. Do you agree with the proposed functions?
   Pick one:
   ☒ yes
   ☐ no.

   Yes. We support Government overseeing adaptation rather than the CCC as the Government has a broad overview across the entire economy and the capacity and authority to liaise with key stakeholders such as local authorities and businesses. Local authority infrastructure and risk management planning is critical.

15. Should we explore setting up a targeted adaptation reporting power that could see some organisations share information on their exposure to climate change risks?
   Pick one:
   ☒ yes
   ☐ no.
Yes in principle, the detail will be as important there will be confidentiality issues to consider as well as ensuring that businesses can leverage existing systems they have in place where these are tailored to their needs.