

29 April 2016

Climate Change Policy Team
Ministry for the Environment
Via email: nzetsreview@mfe.govt.nz

NZ Emissions Trading Scheme Review Consultation

Mighty River Power welcomes the opportunity to provide further comment on the review of the New Zealand Emissions Trading Scheme (NZ ETS). This submission builds on, and should be read in conjunction with, our 19 February 2016 submission.

In our view the transition to a low carbon future presents significant opportunities and early clarity around policy settings is crucial. We welcome indications that the transitional surrender obligations are likely to be removed. It is important that the Government send a strong, consistent message to domestic businesses and consumers and our international counterparts that New Zealand is committed to playing its part in reducing global emissions.

Free allocation of emission units, use of international credits and auctioning are key design issues for the NZ ETS

We support more consideration being given to these features of the scheme. It is important to take the time now to ensure these features are well designed and clearly understood. Further consultation on options including the costs and benefits will be important so that business and consumers are kept informed and have opportunities to contribute going forward.

We note that when the Government removes the current transitional surrender obligations, the amount of units allocated for free will double unless a decision is made to phase out free allocation. The Government has indicated it will consider reducing free allocation after 2020.

We support reducing free allocation as soon as practicable with the additional units being auctioned. Auctioning is the most economically efficient way of allocating the units and allocating capacity to the highest value use. We support auctioning commencing post-2020. This will provide time to sort out eligibility for international units and to set up the auction system, including consulting on the design, rules and operation.

We note that the Government is also considering price stability mechanisms such as caps and price floors. We consider such mechanisms to be less preferable to clear and timely information around the supply international credits and auctioning. Clear policy settings are preferable to regulation of carbon prices which run the risk of reducing the efficiency of investment signals provided by the ETS.

If international units are to be eligible for NZ ETS compliance after 2020 the terms and conditions for international unit eligibility along with the proportion of units allowed needs careful consideration and further consultation. The environmental integrity of any international units is the most important issue for the ETS and has been a main of criticism in the past.

Post Kyoto, the international environment is more complex. In addition to centralised options such as the Clean Development Mechanism there will be significant opportunities to negotiate bilaterally with a wide range of countries including South Korea, Australia, the European Union, California and China to link emission trading schemes.

This complexity coupled with a lack of information could create significant uncertainty as to the supply of future international units. The domestic market will deal with such uncertainty as long as there is sufficient transparency and information around timeframes for integration with international schemes. It may be appropriate to consider transitional phasing arrangements for any linkages to international schemes.

The extent to which we will allow international units to be used to meet New Zealand's target is also an important issue to resolve. We welcome more information and consultation on this matter particularly as it has implications for supply of credits and therefore carbon price forecasting and for forestry investment decisions.

Treatment of the forestry sector in the NZ ETS is crucial

We agree that the NZ ETS can be improved to support new forestry planting. This is important because forestry is currently our most important source of domestic emissions reductions. We encourage further work on accounting options, both averaging and harvested wood products accounting.

Both options need to be carefully considered against the status quo in terms of striking the right balance between simplicity and meaningfulness. For example, the harvested wood product approach could deliver benefits to foresters in terms of deferring emissions unit liabilities but would be challenging to implement simply at specific local or regional levels. Even if a simpler national average were to be adopted, we note that the Ministry's Forestry Technical Note states that estimating changes in carbon stocks in the New Zealand wood products pool is "difficult to...verify", which probably calls into question the meaningfulness of the approach."

Any analysis should take into account the views of the forestry sector and the impact on long term carbon off-take contracts. We also think it is important that any forestry treatment integrates with forestry policies outside the NZ ETS in the interests of consistency and certainty. As with other aspects of NZ ETS design the more information that can be made available the easier it will be for market participants, particularly those in the forestry sector to plan and make investment decisions.

In making these comments we are assuming that no changes are proposed to the well-established and robust measurement approaches for increases in forestry carbon stocks (such as the Ministry of Primary Industry's Field Measurement Approach).

Addressing barriers to uptake of low carbon technologies

Transport electrification will substantially reduce our emissions while improving our balance of payments, offering significant fuel cost savings to consumers (equivalent to 30c per litre of petrol according to EECA) and reducing health related costs due to poor air quality. While an effective carbon price will assist in realising these benefits, there remain a number of non-price barriers that could be addressed to encourage electric vehicle uptake.

As a large car fleet owner, Government can show leadership by committing to purchasing electric vehicles and potentially leveraging wider purchasing power by aggregating wider demand through co-ordination with commercial fleet managers. This will support the development of a second hand vehicle market, driving down the up-front capital costs to consumers.

Public electric vehicle charging infrastructure is also important to promote consumer confidence around reliability and range of electric vehicles. Government could assist in the co-ordination and funding of national charging infrastructure in collaboration with industry.

Please direct any queries on this submission to myself on [REDACTED] or [REDACTED]
[REDACTED]

Yours sincerely

[REDACTED]

Nick Wilson
Manager Regulatory and Government Affairs

Appendix One: Response to Consultation Questions

Other issues: business response to NZ ETS

9. Do you consider the future costs of emissions in your business planning? If yes, how do you do this?

Yes. We undertake our own forecasting and analysis and manage our risk by appropriate hedging. We have shifted our generation fleet toward 100% renewable and we are in the process of converting a significant proportion of our vehicle fleet to electric vehicles.

10. What would improve your ability to take into account the future cost of emissions in your business planning?

Greater policy and regulatory certainty is important. In this respect getting the design issues relating to the NZ ETS established will be helpful. In particular, certainty around the extent to which international emission units will be eligible for meeting New Zealand's carbon budget. Clarity is also important around the current free allocation of units along with the treatment of New Zealand's current large surplus of units and the rules around any potential auction process and the timetable for any key decisions as to international linkages.

Other issues: protecting competitiveness through free allocation

11. Under what conditions should free allocation rates start to be reduced after 2020?

By 2020 we would expect the key design issues for the NZETS under the post Kyoto regime to be resolved and therefore we should be in a position to start removing free allocation. It would assist business planning to signal a pathway for this as soon as possible. The key design issues that need to be resolved are signalled in the consultation paper – mechanisms for managing unit supply, international units and whether we will use auctioning as the preferred method for allocating units and if so the rules for this.

12. What impact would it have on your investment decisions over the next few years if there was a clear pathway or criteria for phasing out of free allocation after 2020?

Mighty River Power is not allocated any free units however we support in principle a clear pathway or criteria for phasing out free allocation after 2020 as this will assist with our long term planning around where and how to source any emissions units we may need to cover our emissions.

Other issues: managing unit supply – international units

16. If international units are eligible for NZ ETS compliance in the 2020s, should any of the following restrictions be placed on their use?

- a) restrictions on where units can be sourced from (location and/or types of projects)
- b) Restrictions on how many units can be surrendered
- c) other

We would support a) in terms of ensuring that any international units represent genuine abatement so that New Zealand is contributing to a global reduction in emissions. This has been a source of criticism of the ETS to date and needs to be resolved to ensure credibility.

We would require further analysis on the value of restricting international supply in terms of net benefit and least cost abatement for New Zealand.

Other issues: managing unit supply – auctioning

17. Should auctioning be introduced in the NZ ETS and if so when?

a) in the next 2-3y

b) within 5y ie before 2020

c) after 5y ie post 2020

Auctioning should be introduced as soon as there is sufficient unit supply to warrant the cost associated with designing the auction mechanism. Given that the Government has stated it will consider removing free allocation from 2020, post 2020 is probably the appropriate time. This timeframe will allow sufficient time to design a robust auction system, with clear rules, consult and ensure all potential market participants know how the auctions will work.

18. What should be the role or purpose of an auctioning function in the NZ ETS, if one were introduced?

a) align supply in the NZ ETS more closely with our international target

b) more actively manage NZU prices

c) other

We consider the function of auctioning should be efficient price discovery and least costs abatement.

19. How should auctioned NZUs relate to other sources of unit supply in the NZ ETS, especially NZUs generated through forestry removals and/or international units?

We would require more information and analysis to provide a meaningful response although in principle we would anticipate all units would be fungible.

Other issues: managing price stability

20. What impact has carbon price volatility in the NZ ETS had on your business?

a) minor

b) moderate

c) significant

It has been well publicised that the inclusion of international units that were not linked to credible abatement has led to significant price volatility. This creates significant challenges for businesses in taking an informed view or entering into appropriate hedging arrangements. Going forward these issues need to be resolved as stated above.

21. Do you think measures should be in place to manage price stability?

We do not think that it is necessary to put in place specific measures to manage price stability as these could reduce efficiency and increase the need for future changes which makes it

more difficult to make long term investment decisions. It is more important to provide clear and reliable information on how the supply of verified carbon units may change over time and leave market participants to form their own commercial views on the implications for carbon prices in relation to their own particular circumstances.

22. What do you consider are important factors in managing price stability?

a) upper price limits (eg fixed price option, or a price ceiling implemented through an auctioning mechanism)

b) lower price limits (eg price floor)

c) other

As per our answer to question 21 we believe that clear information on emission unit supply is the most important information for market participants to have when managing price stability. We are not persuaded that a cap or floor is required.

23. What should the Government consider when managing price stability?

We consider that the Government should consider carefully the effectiveness of any interventions versus the benefits of a light handed approach.

Other issues: operational and technical matters

24. Are you aware of ways the administrative efficiency of the NZ ETS could be improved? Yes see our material in relation to geothermal in Appendix 2 below.

25. Can you provide further information to support your answer?

a) complexities involved in NZ ETS legislation

b) penalties for breaching NZ ETS obligations

c) any technical or operational changes that could be made to the NZ ETS to improve efficiency

See our comments in Appendix 2.

Other issues: addressing barriers to the uptake of low emissions technologies

26. Are there any barriers or market failures that will prevent the efficient uptake of opportunities and technologies for reducing emissions?

27. If so, is there a role for Government in addressing these barriers or market failures and how should it do this?

With respect to the above two questions we believe that transport electrification will significantly reduce our emissions while improving our balance of payments, offering significant fuel savings to consumers (equivalent to 30c per litre of petrol according to EECA) and reduce health related costs associated with poor air quality. While an effective carbon price will assist in realising these benefits, there remain a number of non- price barriers that could be addressed to encourage electric vehicle uptake.

As a large fleet owner, the Government can show leadership by committing to purchasing electric vehicles and potentially leveraging wider purchasing power by aggregating wider

demand through co-ordination with commercial fleet managers. This will support the development of a second hand vehicle market, driving down the up-front capital costs to consumers.

Forestry Consultation Questions

Existing structural design settings

With respect to questions F1-14 it is desirable that the NZ ETS be improved to support new forestry planting. This is important because forestry is currently our most important source of domestic abatement. We encourage further work on accounting options, both averaging and harvested wood products accounting. Until this work has been undertaken it is not possible to determine which accounting approach is preferable though as a matter of principle simplicity is important so that as many forestry owners as possible are able to participate in the NZ ETS.

F1 What do you consider are the strengths and weaknesses of the NZ ETS forestry settings?

Current settings mean that pre 1990 forests incur costs but no benefits. This is something worth examining and consulting on further.

F2 Do the NZ ETS forestry settings discourage deforestation? If not, what settings do you think would?

Past changes to rules around inclusion versus inclusion of international emissions units have had a dramatic impact on emission unit supply and this uncertainty has likely had a negative impact on discouraging deforestation.

F3 Do the NZ ETS settings incentivise afforestation and replanting? If not, what settings do you think would?

Certainty around regulatory settings will be important to enable long term investment decisions.

F4 Does the NZ ETS provide effective incentives for smaller foresters to participate in the scheme? If not what settings would?

It is likely that the less complicated the rules around forestry inclusion and compliance, including accounting requirements the easier it will be for smaller foresters to participate.

F5 Does the NZ ETS work well alongside other forestry programmes? If not how could better alignment be achieved?

As a matter of principle we consider it important that the NZ ETS be designed to align well with other forestry programmes in order to provide consistency and certainty to forest owners and those considering investing in forestry.

Future forestry accounting in the NZ ETS

In terms of questions F7-13 see our comments on treatment of the forestry sector at the front of this submission.

Appendix Two: Comments on Unique Emissions Factor Regulations for Geothermal

We would like to make the following points with respect to the Unique Emissions Factor (UEF) Regulations for Geothermal. If you have any questions please contact Rebecca Lawson, Graduate Plant Chemist [REDACTED] or [REDACTED].

- 1) The UEF regulations for geothermal, under Clause 16, item (3a) states that “measurement of the steam quantity produced must be undertaken with a venturi flow meter (or other equipment with at least the same accuracy)”.

Again under clause 16, item (3c) it states “the calculation of steam quantities must be conducted on a continuous basis and in accordance with ISO 5167–1:2003”

For item 3a) it specifically references a venturi meter (or other equipment with at least the same accuracy). Most geothermal power plants DO NOT measure their steam with venturi meters. It is far more common for geothermal power stations to use orifice plates. This means that for Nga Tamariki station, Mokai station and Rotokawa station, it is necessary to justify the accuracy of the orifice plates or annubar meters for each and every UEF application to the auditors engaged to review the UEF application.

We believe this adds unnecessary complexity to the UEF review process, especially since these same flow meters are the same ones we use to measure our steam flows for consent reasons so are reliable instruments.

However lower in 3c) it references ISO 5167-1:2003, ISO 5167-1:2003, is the first piece of the entire ISO5167 standard comprised of
ISO5167-1: General Principles
ISO 5167-2: Orifice Plates
ISO 5167-3: Nozzles and Venturi Nozzles
ISO 5167-4: Venturi Tubes
ISO 5167-5: Cone Meters (V-Cone's)
ISO 5167-6: Wedge Meters

So even though it does not directly reference ISO5167-2 which applies to orifice plates – orifice plates use the same calculation principle as Venturis.

Annubar flow meters do not use the ISO5167 standard, and instead tend to be designed to ASME MFC-12M-2006.

Some orifice plates may even be designed to ISO 15377:2003 which is essentially a continuation of the ISO5167:2003 design standard and continually references back to ISO5167:2003.

Annubar meters are mentioned as acceptable for measuring the tonnes of each class of geothermal steam produced in the “Guide to reporting for Geothermal Activities under the Emissions Trading Scheme” under heading “3.2 Information you are required to collect”.

We believe that the specific reference to “venturi meters” in clause 16 Section 3a) adds unnecessary complexity to the UEF submission, especially since the majority of geothermal power plants primarily employ orifice plates and occasionally annubar meters for their steam measurement.

Especially when you take into account that which standard is referenced on a set of drawings for a flow meter could be dependent on where the company that designed the plant is based– necessary to keep in mind given most geothermal power plants have aspects of their design completed internationally.

A proposed alteration to clause 16 section 3a) could be: "Measurement of steam quantity produced must conform to an applicable international standard (e.g. ISO, ASME, ASTM, AS, NZS etc)".

If there is a requirement to be more specific on the type of device used to measure flow Clause 16 section 3a) should at least contain reference to orifice plates and annubar meters as acceptable form of measuring steam flow.

For clause 16 section 3c), in line with the number of possible standards for the design of the steam flow meter it could be changed to : "the calculation of steam quantities must be on a continuous basis and must be conducted to an international standard (e.g. ASME, ISO, NZS, AS etc"

Or at very least should contain some reference to ISO15377:2003 and ASME MFC-12M-2006.

- 2) The requirement that if a UEF measured is 5% higher or lower than the UEF currently in place for a station, that this means a new UEF has to be applied for.

We would like to request that this is altered so that only if a 5% or greater increase is seen in the measured UEF for a geothermal station compared to the UEF already in place is a UEF review triggered.

The production of a geothermal reservoir that is supplying a power station means that over time the gas levels in the geothermal reservoir will slowly decrease. This means that as a general trend, we would expect to see the UEFs for any given station to slowly reduce over time. Thus it is quite common for a UEF review to be triggered about once every two to three years due to the 5% decrease rule.

Sometimes this 5% decrease does not have significant monetary value to a geothermal power plant to make sense to undertake a whole new review process. Given that if the 5% decrease rule did not apply, a geothermal power plant would hold the same UEF for a longer period of time and essentially end up paying for a greater amount of carbon than it is actually emitting due to the progressive degassing of the field, the removal of the "5% decrease" rule for triggering a UEF review would not be detrimental to the NZ ETS as a whole and would allow a geothermal power station operator to decide when it is financially sensible to undertake a new UEF review due to a decrease in measured UEF at the station.

- 3) Number of samples required per year/for a UEF submission.

The regulations for geothermal UEFs do not specify any minimum requirement for the number of gas samples/gas analyses that need to be done in order to apply for a UEF.

The 90% confidence interval means that a number of samples must be taken in order to get a confidence interval narrow enough. However there is on-going pressure from reviewers to increase sampling/analysis. Mighty River Power generally measures at least 8 times in a given calendar year, with some stations having up to 12 measurements a year. Deloitte – one of the accredited review companies requires at least 8 samples in order to review a UEF.

We consider that it should not be up to the review companies to set these 'minimums' and instead minimums should be included in the Regulations. This will aid clarity and help geothermal power plant operators who may be applying for their first UEF understand the minimum number of measurements they must take in any given year prior to getting to the end of the year when they engage the reviewer.

- 4) A formalised process for getting a power plant specific Default Emissions Factor (DEF). Currently DEFs are only reviewed when initiated by the EPA. This seems to happen about every 3 to 4 years. We propose that when a new geothermal power is built that there is an option/form for applying for a default emission factor specific for that station within a year or two of it coming online.