Impact Summary: New Zealand Emissions Trading Scheme Tranche Two: Improving Transparency

Section 1: General information

Purpose
The Ministry for the Environment (MfE) is solely responsible for the analysis and advice set out in this Regulatory Impact Assessment, except as otherwise explicitly indicated. This analysis and advice has been produced for the purpose of informing final decisions to proceed with a policy change to be taken by or on behalf of Cabinet

Key Limitations or Constraints on Analysis
The full scope of transparency within the New Zealand Emissions Trading Scheme (NZ ETS) is very broad. The options considered within this Regulatory Impact Assessment (RIA) are limited as some aspects of transparency within the NZ ETS are being considered in other workstreams. Therefore, only transparency considerations relating to NZ ETS participant emissions and removals, and total account holdings of NZ ETS carbon units (NZUs) are considered within the scope of this RIA. We are relatively confident in the evidence and assumptions we have made regarding the opportunities for increasing transparency in the NZ ETS. We consider that there are clear opportunities to improve market efficiency, increase public trust and understanding, and help align the NZ ETS with other reputable ETS schemes. The main concern regarding the preferred option is confidentiality, and the impact that releasing data could have on participants' commercial sensitivity. While it is becoming increasingly common to publish emissions data internationally, there continues to be concerns about commercial sensitivity. There is limited evidence to show that releasing this information has caused issues in other countries. However, some participants have raised concerns about this in consultation as releasing this information could give insights into production levels. We recognise that this is a legitimate risk. While we consider that it is in the wider interest of the public and participants to publish this information, if stakeholders continue to raise this risk during the select committee process, it may need to be considered whether it would be appropriate to withhold this information in limited specific circumstances. A key limitation is how to assess whether the preferred option has realised the opportunities. While we consider that overall the preferred option will help to realise all three opportunities, it will be difficult to measure the specific effects. This is because the evidence of improvements will likely be anecdotal only, and likely to come from general feedback from stakeholders and improved recognition 'public image' in the media.

Responsible Manager (signature and date):
M Cowie 27/3/19 Matthew Cowie Manager – Climate Change Policy Climate Change Directorate **Ministry for the Environment**

Section 2: Problem definition and objectives

2.1 What is the policy problem or opportunity?

The current situation

The New Zealand Emissions Trading Scheme (NZ ETS) is the Government's primary policy tool in meeting its domestic and international emissions targets. It was established under the Climate Change Response Act (CCRA) and is a market-based approach to reducing the emission of greenhouse gases (GHG). The NZ ETS involves putting a price on emissions through the trading of NZ ETS carbon units (NZUs). This creates a financial incentive for businesses to reduce the emissions that they are liable for. It also provides the opportunity for participants to earn NZUs through the emissions that they are responsible for sequestering (removing).

The NZ ETS comprises six mandatory emissions sectors (Pre-1990 Forestry, Liquid Fossil Fuels, Stationary Energy, Industrial Processes, Waste and Agriculture[1]), two voluntary removal sectors (Post- 1989 Forestry and Other); and twenty specific emissions activities (such as importing coal, using geothermal fluid, or producing iron or steel). Mandatory emitters comprise approximately 300 businesses, and removals comprise approximately 2,150, made up of predominantly small foresters.

The NZ ETS has an upstream point of obligation, meaning the obligation to report and surrender emissions is generally upstream in the supply chain. For example, BP reports and surrenders units within the NZ ETS, rather than millions of individual petrol users.

The transparency of any market is an important factor in ensuring its efficient functioning and integrity. Currently, market transparency of the NZ ETS is relatively limited, because information related to it is mainly reported at an aggregate level (The level of aggregated data reported by the Environmental Protection Authority (EPA) is available in Appendix 2). This is predominantly due to the CCRA containing an obligation to maintain participants' confidentiality (S99), and requires the Environmental Protection EPA to only publish aggregate data (s89 (3) and (4)).

[1] Agriculture currently reports in the ETS, but does not have surrender obligations

Opportunities to address

Improving transparency within the NZ ETS will provide opportunities to:

i. *Improve public trust and understanding of the NZ ETS and participating businesses*

There are currently limitations on public trust and understanding of the NZ ETS and how it operates as a tool to reduce New Zealand's emissions. This exists for a number of reasons, including the fact that New Zealand's gross GHG emissions have continued to increase since the NZ ETS was introduced, the upstream structure of the scheme, and the past use of international emissions units. Some of these international units had issues of environmental integrity and caused a crash in the spot price of NZUs (the latter issue was addressed through a decision to limit international units if the NZ ETS is to reopen to these in future). The public also has little visibility over where emissions are originating and sources of emissions removals within the scheme.

ii. *Improve the efficient operation of the NZ ETS*

The transparency of the NZ ETS impacts on participants' understanding and confidence when trading in the market. Transparency provides visibility over where trends and volumes are originating, the impact this has on supply and demand, how this may affect the trading price, and liquidity within the market. Therefore, increasing transparency can provide the opportunity to improve the efficient operation of the NZ ETS.

iii. *Better align practice in the NZ ETS with other international emissions trading schemes*

Releasing a greater level of participant level emissions trading data may provide the NZ ETS with the opportunity to better align and allow linkage with other reputable emissions trading schemes, s9(2)(j) [redacted]. Many schemes have a greater level of transparency than the NZ ETS, and include publication of individual participants' emissions data and participant non-compliance.

Confidence in the opportunities

During the *Improvements to the NZ ETS* consultation, improving transparency was a common theme in order to help people make informed decisions about the businesses they are dealing with, making businesses have greater accountability, providing greater emissions reduction incentives, and overall greater ability for the public to follow and support New Zealand's emissions reduction targets.

Throughout other consultations, such as the 2016 New Zealand Emissions Trading Scheme Review, participant feedback regarding the level of currently available information impacting on the ability to make informed decisions was a consistent theme.

There is information to support the view that alignment with other ETS will be improved by increased transparency, including a report by the International Emissions Trading Association (IETA), regarding overlapping policies with the EU ETS, which stated the importance of transparency, and that it should be a minimum requirement for comparability with the EU ETS.[2]

[2] https://www.ieta.org/resources/EU/IETA_overlapping_policies_with_the_EU_ETA.pdf International Emissions Trading Association, Overlapping policies with the EU ETS, (2015)

We have also received direct feedback from the EU about the lack of information available about the NZ ETS market:

> *"We note that emissions data and compliance information about individual participants are not publicly available in the NZ ETS. In the EU ETS, such data is made available in a timely manner since the very start in 2005. This level of transparency is important for the efficient operation of the carbon market."*

Taken together, the three opportunities make a strong case for making legislative changes to enhance the integrity of the NZ ETS by making the scheme more transparent.

Why it should be addressed now

There is increasing public interest, both in New Zealand and internationally, regarding climate change related issues, what the Government and businesses are doing to address them, and how New Zealand is progressing towards its domestic and international climate change targets.

In New Zealand there is currently an active discussion regarding possible requirements for some businesses to release their emissions related data. The Productivity Commission recommended in their *Low-emissions Economy* report that the Government should implement mandatory (on a comply-or-explain basis), principles based, climate-related financial disclosures. The main purpose of the disclosure regime would be to ensure that the effects of climate change become routinely considered in business and investment decisions. This is referred to as Climate Related Financial Disclosure (CRFD).

It is timely to consider publication of emissions data in the NZ ETS while the Government is also considering its response to the Productivity Commission. The Government is likely to agree in principle to the Productivity Commission's recommendation. The report did not address the classes of entity that the disclosure would apply to, and the Government is still considering this issue. It is likely to include the major entities that participate in New Zealand's financial markets, i.e. listed issuers, registered banks, licensed insurers, and investment businesses that own or manage assets on behalf of the investing public. There is still discussion over whether it would include private companies, as they do not issue debt securities, there is no active market in their shares and they do not otherwise hold or manage money obtained from the public in a fiduciary capacity.

Internationally, it is becoming standard practice to publish emissions data. United States, Canada, and Australia are examples of countries where compulsory publication of business' emissions data occurs.

There are also other increasing drivers building the case for why transparency within the NZ ETS should be addressed now:

- NZU prices are likely to rise in the future, meaning efficient and confident trading will become increasingly important
- changes in the structure of the market, including the introduction of auctioning and a unit supply cap on emissions
- discussion of linking with other international ETS markets in future as emissions targets become more ambitious
- A second tranche of changes to the NZ ETS are currently being progressed together that will form part of a combined amendment bill to the CCRA, to be introduced to the House in mid-2019.

2.2 Who is affected and how?
We are seeking to improve how participants are able to operate within the NZ ETS. Participants within the scheme could be provided with a more detailed level of information, which may improve their understanding and confidence when trading in the scheme. A greater level of transparency may improve the public's understanding and opinion of the scheme, and potentially how they interact with the participating businesses. In future, international ETSs and their participants may be affected if they are involved with emissions trading in New Zealand. Some NZ ETS participants do not want their individual emissions trading data to be published due to concerns relating to privacy and the potential commercial sensitivity of their information. In contrast, the general public has shown overall support for increased NZ ETS transparency, which has been evident through public consultation.

2.3 Are there any constraints on the scope for decision making?
There are many types of information from within the NZ ETS that have the potential to increase transparency, including data regarding participant level emissions and removals, NZ ETS carbon units (NZU) holdings, participant compliance, and details regarding 'market elements' of the NZ ETS, such as information about transfers and trade of NZUs. However, this assessment is only considering the potential impacts of increasing transparency within the NZ ETS through the publication of participant emissions and removals, and account holder NZU holdings data, in addition to the aggregate data already published. The remaining use and publication of other types of information data will be considered as part of other policy development. Releasing NZ ETS compliance data will be assessed in regards to improving compliance and penalties and incentivising compliance. NZ ETS financial market data elements, such as the trading of NZUs, will be assessed in relation to market governance. Requiring all publicly listed businesses to release their emissions data is presently being considered in relation to CRFD. There is an interdependency between this assessment and other tranche 2 projects that are progressing in correlation to form a range of changes to the NZ ETS through an amendments bill to the CCRA.

Section 3: Options identification

3.1 What options have been considered?
The options considered to increase transparency within the NZ ETS are as follows. They are not all exclusive from one another: 1. **Status quo.** There would be an ongoing legislative requirement to maintain NZ ETS participant confidentiality which limits publication of certain individual participant level data, including emissions and NZU holdings. Therefore, activity level data is required to be published at an aggregated level.

2. **Amend the CCRA to require publication of all NZ ETS participant level emissions and removals data.** The pros of this option are that it releases the most relevant data relating to emissions/removals activity within the scheme. Publishing this information may help to improve transparency and subsequently help to increase market efficiency through improved price discovery. Greater visibility over the sources of emissions and removals also provides the information that the public is becoming increasingly interested in, and will help to build trust and understanding of the scheme.

   The cons of this option are that it releases information that some participant businesses may consider to be commercially sensitive, such as being able to allow for the calculation of annual production volumes, energy operating costs, and what products they import for manufacture. However, this type of data can often be determined for public companies from annual reports, which are published by several large NZ ETS participants. Some businesses have also said that release of this data could have unintended consequences for how the public interacts with them, if they appear to be responsible for a significant amount of emissions due to the NZ ETS upstream point of obligation.

3. **Amend the CCRA to require publication of NZ ETS account holder level NZ ETS unit holdings.** The pros of this option are that it releases an area of NZ ETS market information that is not currently available, and so increases the level of transparency within the NZ ETS.

   The cons are that it releases information that is less relevant to the public, and does not provide insight into emissions trends, supply and demand and market price, to increase market efficiency. It is also particularly commercially sensitive when compared to only emissions, because it can indicate future business plans and trading strategies, and release how businesses may be stockpiling up on units. It can also be used to calculate the total value and profit of NZU holdings that businesses are in possession of, effectively like disclosing the total value stored in a bank account. There may also be an increased security risk for participants who have recently earned NZUs, as they will be easier to identify. These people may become targets of phishing attacks or other attempts to gain their units below market value, particularly where these are less sophisticated market participants.

4. **Apply account holder level publication requirements only to publicly listed companies.** The pros of this option are that it reduces concerns about publishing commercially sensitive information as many publicly listed companies already chose to publish this type of information in annual reports.

   The cons are that it does not provide consistent information that would treat all participants the same, so does not realise the full opportunities.

   Only 45 percent of all NZ ETS businesses are registered in New Zealand, and of these, many are not listed as either publicly listed or private. It would not fully meet the requirements needed to have full visibility over the market to improve market efficiency, or meet the full level of transparency of other ETS markets. From the perspective of the NZ ETS and the NZU market, it does not make any difference whether a participating company is publicly listed or not. A large company would likely have the same impact on the NZ ETS from a supply and demand perspective, regardless of whether it was privately held, or publicly listed.

5. **Apply account holder level publication requirements only to emitters, and not voluntary removal participants.** The pros of this option are that information about GHG emissions is predominantly the information that the public is most concerned about and interested in being able to track and have greater visibility over. The majority of emitting participants are large businesses, and are not able to choose about participating in the NZ ETS. A large number of participants involved in removals are small forestry participants. Unlike emissions, if removals participants are particularly concerned about releasing their data, they are able to either opt out of the scheme, or not participate in the first place.

   The cons of this option are that by not releasing removal data, this is effectively reporting all removals at an aggregate level, which impacts on the potential market efficiency benefits of greater visibility over trends in supply and demand, and loss of an ability to understand where removals are occurring from. Although there are a large number of small removals participants, there are also large forestry businesses involved in the NZ ETS.

Criteria

1. **Public trust and understanding**– provides an opportunity to increase trust and understanding in the NZ ETS, how it operates, and how it can work as an effective emissions reduction tool.
2. **Minimal complexity and administrative cost** – wherever possible, the cost and time to implement, manage and participate in the NZ ETS are minimised for participants and officials.
3. **Potential for international linkage** – helps to align with practice of other international ETS schemes, to allow for potential international carbon market linkage and trading in the future.
4. **Participant support** – ensuring that participants are confident in participating in the market, the requirements that this imposes, and the potential impacts it may have on their business, including privacy of commercially sensitive information, or the ability to be targeted by others.
5. **Market efficiency** – NZ ETS transparency and the provision of relevant market information can add to market efficiency through increasing participants' understanding of how the market operates, helping to improve allocative efficiency and price discovery.

For a summary of the options and criteria please refer to Appendix 1

3.2 Which of these options is the proposed approach?

On balance, the preferred approach is Option 2, to publish individual emissions and removals data, recognising that there may be legitimate risks of publishing this data due to commercial sensitivity.

Option 2 and 3 do not have to be implemented separately. However, Option 3 was not considered to provide sufficient additional benefits and could create unnecessary risks.

Option 2: Publication of NZ ETS participant level emissions and removals data.

Option 2 will amend the CCRA to require the annual publication of participant level emissions and removals data. This option is relevant in multiple ways to both the wider public and participants of the NZ ETS, and can help align the NZ ETS better with international ETS.

Confidentiality concerns

Concerns have been raised from some participants regarding the commercially sensitive nature of releasing emissions data. We consider this to be a legitimate concern, however, we have found limited evidence where releasing similar information has had significant negative impacts on businesses.

Similar concerns were originally raised in the NZ ETS regarding the publication of industrial allocation data. In the CCRA, industrial allocation information does not have to be published if the EPA considers that publishing the information would be likely to prejudice unreasonable their commercial position. Some information was withheld during the first few years of the scheme under this provision, but has since been released, and currently industrial allocation is published for all recipients. There has been no evidence that this has been damaging to businesses, and no businesses have recently raised concerns about their confidentiality.

Compulsory release of emissions data by businesses also currently occurs in the EU, United States, Canada, Australia and Japan, and has no significant evidence of causing negative financial impacts on corporations in these strong economies. Research from the EU ETS, has showed that participation, which involves releasing emissions data, has led to an increase in regulated firms' revenues and fixed assets[3]. Appendix 2 provides a table of emissions disclosure locations and schemes.

How Option 2 addresses the opportunities

By publishing specifically emissions and removals data, Option 2 provides the most relevant market data for participants to use when assessing market sources, trends, supply and demand, and potential trading prices. This insight can impact on strategic decisions around investment and business planning.

For example, because of the current restrictions on publishing data from individual firms, it is not possible to know with certainty which forestry companies are the major potential suppliers of NZUs into the market. If the major forestry companies were able to be identified through a new, broader transparency framework then market participants would know which companies matter the most to the NZ ETS. Market participants, analysts and commentators would then be better able to judge whose opinions and actions have the most influence on the market.

There is extensive economic evidence supporting the assumption that increased market transparency leads to an increase in market efficiency. This has been shown in many different kinds of economic markets, including emissions trading. A 2015 study by the People's Bank of China and the U.N Environment Programme concluded that a healthy carbon market depends on good data to provide robust price signals.

Transparency provides all market participants with the same level of data on which to base decisions, and increased visibility over any kind of misconduct. This is particularly important for the NZ ETS which has a large number of small participants trading small

[3] The Joint Impact of the EU ETS on Carbon Emissions and Economic Performance, OECD Economics Department (2018)

volumes of NZUs, compared to a small number of large participants, involved in trading significant volumes.

Therefore, based on the currently limited available market information in the NZ ETS, and wide range of participant types, it is likely that this assumption will effectively apply to the NZ ETS, and would certainly not negatively impact the functioning of the market.

Option 2 provides useful and relevant information to help improve both participant and public understanding of how the market operates, and help to address public interest and improve trust of the NZ ETS. Emissions data is the most relevant in addressing public concerns regarding climate change and how the ETS is working to affect participants in reducing their emissions.

Option 2 also puts the NZ ETS in line with other relatable international schemes, such as the EU, that release emissions activity data for all publicly listed and private businesses, whilst not having, or planning to release, account holder total unit holdings.

This option is largely consistent with the Government's 'Expectations for the design of regulatory systems'.

For a summary of the options analysis please refer to Appendix 1

Section 4: Impact Analysis (Proposed approach)

4.1 Summary table of costs and benefits

Affected parties *(identify)*	**Comment**: nature of cost or benefit (eg ongoing, one-off), evidence and assumption (eg compliance rates), risks	**Impact** *$m present value, for monetised impacts; high, medium or low for non-monetised impacts*
Additional costs of proposed approach, compared to taking no action		
Regulated parties	Regulated parties, the participants of the NZ ETS, will see no obvious additional costs, as the data being used will be obtained from emissions returns that are already submitted, so will require no additional reporting.	Nil
Regulators	Additional time will be required for the collation and publication of the emissions and removal data in a suitable format. Therefore, there will be financial implications requiring specific funding for the EPA and MPI who are proposed to be responsible for publishing the information. The EPA are already responsible for the publishing of NZ ETS data and reports.	Medium
Wider government	No obvious additional costs to wider government.	Nil

Other parties	No obvious costs to other parties	Nil
Total Monetised Cost		Not quantified
Non-monetised costs		Low

Expected benefits of proposed approach, compared to taking no action		
Regulated parties	Increased transparency can lead to a greater understanding and more efficient carbon market. This can lead to market participants becoming more confident in trading and help to inform firm's market decisions, such as buying and selling units and making strategic decisions around investment and business planning. Although difficult to quantify, benefits are real.	Medium
Regulators	Increased transparency is expected to have indirect benefits in terms of enabling the EPA to share more of the data it holds. It is also likely that greater transparency will build greater trust and confidence in the EPA.	Low
Wider government	Wider Government can be more confident in the NZ ETS operation and efficiency. Ministries will be able to have greater access to additional data that can be used in economic modelling and informing policy development.	Low
Other parties	Potential international ETS linking partners – releasing relevant data equivalent to what is released in their schemes, will provide international linking partners with more confidence in the NZ ETS, and improve the potential for New Zealand to access international emission units in the future. New Zealanders – by having increased transparency of the NZ ETS, the public will be able to have greater understanding and trust over how the market works. This can provide them with better knowledge of some of the upstream businesses they interact with, potentially encourage competition between businesses and emissions increasing industry best practice. Having an efficiently functioning NZ ETS market, helps New Zealand to achieve its overall policy goals and reduce emissions.	Medium

	However, there is the potential that due to the upstream effects of the scheme, there could be a perverse outcome of deregistration from the voluntary activities of purchasing coal and natural gas which would make associated emissions at the downstream level less transparent.	
Total Monetised Benefit		Not quantified
Non-monetised benefits		Medium

4.2 What other impacts is this approach likely to have?

Individual participant emissions data may be commercially sensitive, due to its relevance to business operation. Therefore, there is a possibility that this could have some degree of financial impact. Financial impacts could occur if the published data affects how the public interacts with these businesses, e.g., choosing to engage less with high emitters, even if they are upstream participants, not directly responsible for the release of the emissions. Second, emissions reported on by participants may be used to derive volumes of production that could be commercially sensitive for a number of reasons, such as competition, exposure to takeover bids, etc.

However, this is very difficult to assess or to estimate the size of potential effects. In some cases it may also result in a positive impact, such as if it were to provide a positive incentive for businesses to reduce emissions.

This approach is also possible to cause some of the more risk averse voluntary participants, such as post-1989 forest participants to choose to leave the scheme as a result of the extra information being released. This effect is likely to be small.

There also may be an increased security risk for participants who are sequestering carbon, as it will be easier to identify who is likely to have recently earned NZUs. These people may become targets of phishing attacks or other attempts to gain their units below market value. This risk is larger for participants who are less technologically sophisticated, often smaller voluntary participants. This risk will increase if the carbon price increases.

Section 5: Stakeholder views

5.1 What do stakeholders think about the problem and the proposed solution?

In July 2018, Cabinet approved public consultation on proposals for improving the NZ ETS [CAB-18-MIN-0374], including questions regarding the potential benefits and impacts of publishing participants' individual emissions data. From 13 August to 21 September 2018, officials from the MfE, the Ministry for Primary Industries (MPI) and Te Uru Rākau conducted a joint public consultation along with other proposed improvements to the NZ ETS.

Submitters had mixed views. The majority of submitters favoured publishing participant level emissions data (56 percent of 97 submitters) referring to the importance of transparency, benefits of increasing understanding of the NZ ETS, the ability to track participant behaviour and emissions trends, and allowing for visibility over the emissions of businesses they support.

Submissions against the proposal (33 percent) were predominantly from businesses that were participants in the NZ ETS, and largely referred to the issue of commercial sensitivity, such as the potential ability to infer production volumes and process efficiency.

Some submissions to the consultation also raised concerns about the functioning of the NZ ETS as an upstream scheme. Because some businesses are responsible for reporting and surrendering NZUs that they are not individually responsible for emitting, there were concerns that this would not give the public an accurate reflection of the actual emissions of individual businesses. Some believed that this could result in the emissions for certain upstream businesses appearing over-represented, which could create confusion within the public assessment.

A key factor that consultation has established, is that it will be important to ensure sufficient contextualisation of all published information, so as not to result in inaccurate assumptions that could have negative impacts on businesses.

Prior to the improvements to the ETS consultation, there was an Emissions Trading Scheme Review consultation, conducted in October 2016. The consultation included a question to participants regarding if additional forms of information would be able to assist their understanding or participant within NZ ETS market.

Within responses from 30 ETS participants, only ten replied 'No' to the question. Ten replied 'Yes' and ten replied 'Unsure/unclear'.

A comment from BP Oil New Zealand stated:

> "BP believes that the Government should consider the role of information transparency and regular data reporting. … Compared to other Emissions Trading Schemes globally, the NZ ETS is relatively opaque. While the NZ ETS Facts and Figures'' and 'Section 89' reports are useful, they are lagging indicators and do not align to enable participants to develop an up-to-date view on market fundamentals. … Providing regular access to information such as parties' annual reported emissions figures and 'grown' NZUs would assist to remove asymmetric information and promote wider participation in the market. This would enable participants to more easily identify potential sources of supply and demand, improve liquidity and reduce volatility."

Section 6: Implementation and operation

6.1 How will the new arrangements be given effect?

The proposed approach is to be given effect through legislative amendment to the CCRA in 2019. The option will require individual participant level emissions and removals data (in tCO2-e) to be published from 2021 on, beginning with emissions data relating to 2020. Data will relate to emissions and the comprising activities that participants are liable for.

Forestry returns currently only record the net carbon stock change, and will therefore only present the net emissions for the activities they have undertaken.[1]

To ensure the overall supply and demand dynamics can be assessed, data for all participants, including the individual participants that form a consolidated group, compulsory and voluntary, will be published. This will include agriculture, who already report emissions to the EPA, even though they do not face a surrender obligation.

The EPA will be given the responsibility for publishing the NZ ETS participant level emissions and removals data. The data will be obtained from emissions returns that are already submitted to the EPA and MPI by NZ ETS participants, and will be published by at least annually, as practicable. To provide a cohesive representation of the scheme, it is advantageous to publish all return information together, requiring the EPA to collect information from MPI that they do not currently hold for harvest emissions. MPI may be required to record more activity level data, rather than the 'net emissions' data. This needs to be able to be worked through before the Bill is finalised, including any financial implications.

In regard to implementation, officials will work with NZ ETS participants to ensure that participants are aware that this information will begin to be published. There is a risk that if emissions data is not properly contextualized, public misunderstanding of the scheme may occur. For example, emissions from forestry harvesting can be very large compared to year-on-year sequestration, and putting a participants activities in the context of wider forestry in the ETS will be important to maintain public support and understanding of the scheme.

The security risks from releasing more information will also need to be managed. Appropriate tools to inform participants about these risks and whether they are emerging in the market can be addressed in wider work around Market Governance in the NZ ETS (e.g. issuing warnings to participants if we are aware that participants are receiving cold calls offering low offers for their credits).

If significant concerns by businesses remain relating to the issues regarding commercial sensitivity of data, there is the potential option to create the ability for the EPA to withhold the information if participants are able to provide evidence to satisfy the EPA or MPI that the information would be likely to prejudice unreasonably their commercial position. This would need to be considered during the select committee stage, which is not optimal. However, it would provide an opportunity to address these concerns. The EPA and MPI have expressed significant concerns regarding the potential administrative costs of having to implement this.

Other implementation risks are relatively minimal, as there is a significant amount of time to prepare how and where the data will be verified and published, before the first individual participant emissions are published in 2021, relating to emissions from 2020.

[1] Forestry returns in 2021 and 2022 will often include removals relating to years prior to 2020 (due to the option of not reporting every year, and a mandatory requirement to report only every five years or if other, specific, criteria dictate.)

Section 7: Monitoring, evaluation and review

7.1 How will the impact of the new arrangements be monitored?

It may be difficult to know whether the new arrangement is successful in maximising the opportunities it is trying to achieve. This is largely because a package of changes are being introduced to the NZ ETS simultaneously, so attributing improvements to the participation, performance, and perception of the scheme to a specific policy in the package will be difficult.

However, there are ways to monitor ongoing public sentiment regarding the scheme and these can be implemented in wider monitoring and evaluation of the scheme. New data can be generated if it is found to be required over time.

7.2 When and how will the new arrangements be reviewed?

Regulatory stewardship over the NZ ETS remains the responsibility of MfE. Enforcement agencies will contribute data and evidence to support assessments of the NZ ETS legislation as a whole. The EPA will be responsible for publishing NZ ETS data, so will be responsible for identifying any unforeseen issues in the process.

The Independent Climate Commission may also have a future role in providing oversight and recommendations for the NZ ETS, including levels of scheme transparency.

It is anticipated that stakeholders will be able to raise concerns through the legislative process, through submissions to Select Committee while it is considering the CCRA amendment Bill.

This policy could be specifically reviewed if the risks to participant security become a significant problem, whether through fraud or other means, and there is evidence to suggest that transparent emissions data is helping entities to target vulnerable participants. This could include considering the benefits of anonymising participants with smaller emissions or removal profiles to protect the less vulnerable participants.

Appendix 1- Options Assessment

Criteria	**Option 2 – Publication of individual participant emissions and removals data**	**Option 3 – Publication of individual participant NZU holdings**	**Option 4 – Publication only to public businesses**	**Option 5 – Publication only to emitters not removals**
Public trust and understanding	✓✓✓ Publication of information related to business emissions improves visibility over the scheme, increasing trust in how it operates and how the government and businesses are addressing climate change	✓ Release of NZU holdings provides additional information of the carbon market, which could help participants to understand use of NZUs. However it does not disclose the most relevant public information regarding climate change and how it is being addressed.	✓ Release of certain large public businesses emissions will provide additional emissions information to the public about how some businesses are emitting, however it does not provide all emissions data required to understand the market, and may make the public think that certain businesses are able to get away with something hiding emissions that they shouldn't.	✓✓ Publication of emissions data would help to increase public trust and understanding, as they see the source of GHG pollution emitters as where the largest concerns lie. However, is does not provide full transparency of the market and how it functions to help understanding of how the full scheme works.
Minimal complexity and administrative cost	X Collation and publication of emissions data will require additional time and cost for the administrator. The information is already collected. There is no additional time or cost for participants who already submit the relevant data to EPA or MPI	X Collation and publication of emissions data will require additional time and cost for the administrator. The information is already collected. There is no additional time or cost for participants who already submit the relevant data to EPA or MPI	X Collation and publication of certain businesses emissions data will require additional time and cost for the administrator. Businesses are not currently identified as public or private. There is no additional time or cost for participants who already submit the relevant data to EPA or MPI	X Collation and publication of certain businesses emissions data will require additional time and cost for the administrator. The information is already collected. There is no additional time or cost for participants who already submit the relevant data to EPA or MPI
Potential for international linkage	✓✓✓ All other major relatable emissions trading schemes publish information relating to business emissions	O Other international schemes do generally not publish data relating to businesses' unit account holdings, so release of this data will not affect, or potentially limit,	O Other international schemes publish information relating to all participant businesses, not only public.	✓✓ Publishing emissions will significantly improve alignment with other relatable emissions trading schemes that report only emissions data, because they do not include removals. However,

		the potential for international linkage		even if they don't include removals, they may be aware that not publishing this, leaves a large section of the NZ ETS not transparent, which could cause issues.
Participant support	X A proportion of ETS participants are opposed to having data released on their emissions or removals that they believe could be commercially sensitive However other participants may support it for the benefits that increased transparency give them when trading in the market, such as market efficiency.	XX ETS participants are likely to be opposed to releasing private NZU data that discloses financially sensitive information regarding the total value of NZUs that they are in possession of and potential businesses with a high number of units to be targeted by attempts to gain units below market value. Seeing other participant unit holding may help some account holders with their trading plans.	X Private businesses may support this plan due to not having to release their data. Public businesses may be less concerned with having their emissions released, if they already have commercial information publicly available. However, they would likely still want to be able to make the decisions about releasing their emissions or not by themselves.	XX A proportion of ETS participants are opposed to having data released on their emissions that they believe could be commercially sensitive. However this option may be popular with removal participants, such as small forestry participants, who do not want their data released.
Market efficiency	✓✓✓ Because emissions and removals are traded within the scheme, they are a relevant form of market data and release will increase transparency, such as supply and demand and therefore increase the ability to trade and market efficiency	✓ Release of NZU holdings data increases transparency and may support market efficiency by seeing where supply is located. However, it does not address gaps in knowledge of emissions trends and where this is coming from.	O Only releasing data of certain businesses leaves large gaps in the market, not specifically based on any sector type. It will not significantly help with assessing supply and demand, or trends.	✓✓ Releasing all emissions data will help to have full understanding of the demand side of the market which will have some effect on increasing market efficiency. However, having the supply of NZUs limited to aggregated data, leaves a large gap in the market and will not entirely fulfil market transparency requirements to improve market efficiency.
Overall assessment	✓✓	X	X	✓

Appendix 2

Schemes involving mandatory public access to individual level GHG emissions[4]:

- Australia – National Greenhouse and Energy Reporting Scheme
- California – Mandatory GHG Reporting Program
- Canada – GHG Emissions Reporting Program
- European Union – Emissions Trading Scheme
- France – Bilan d'Emission de GES
- Japan Mandatory– GHG Accounting and Reporting System
- Mexico National – Emissions Registry
- Norway – Emissions Trading System
- United Kingdom –GHG Reporting Program
- USA – Greenhouse Gas Reporting Program

Appendix 3

Current EPA Level of Emissions and Removals Reporting	
Sector	**Activity**
Part 1 Forestry	• Deforesting pre-1990 forest land
Part 2 Liquid fossil fuels	• Owning obligation fuel
Part 3 Stationary energy	• Importing coal • Mining coal • Importing natural gas • Mining natural gas • Using geothermal fluid • Combusting used or waste oil, tyres, or waste • Using crude oil
Part 4 Industrial processes	• Producing iron or steel • Producing aluminium • Producing clinker or burnt lime • Producing glass using soda ash • Operating electrical switchgear that uses sulphur hexafluoride • Importing hydrofluorocarbons or perfluorocarbons
Part 5 Agriculture	• Importing or manufacturing synthetic fertilisers containing nitrogen • Slaughtering ruminant animals, pigs, horses, or poultry • Dairy processing of milk or colostrum • Exporting from New Zealand live cattle, sheep, or pigs
Part 6 Waste	• Operating a disposal facility
Part 1 Forestry removal activities	• Harvesting post-1989 land or removing post-1989 land from the Emissions Trading Scheme
Part 3 Liquid fossil fuels	• Purchasing obligation jet fuel
Part 4 Stationary energy	• Purchasing natural gas • Purchasing coal

[4] Guide For Designing Mandatory Greenhouse Gas Reporting Programs; World Resources Institute, World Bank Group (2015)