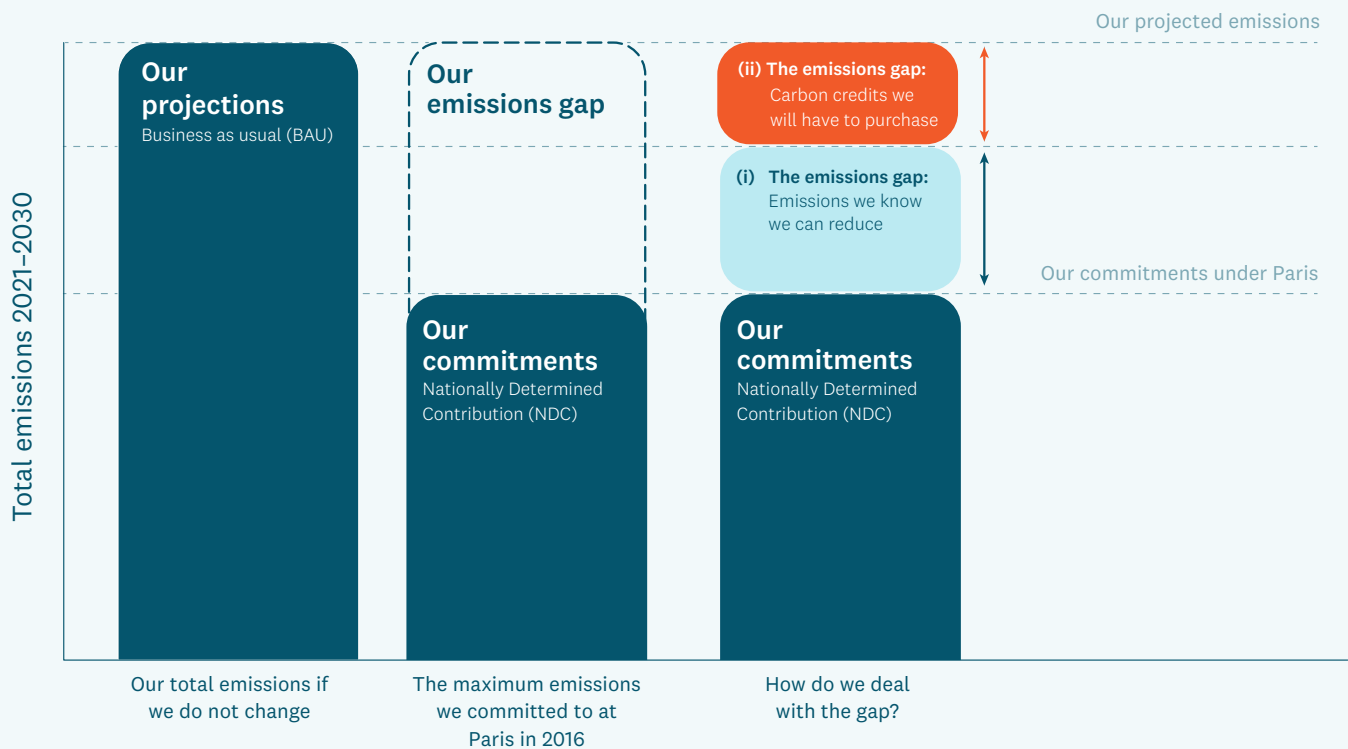


# An Accounting Dilemma:

Does a commitment to purchase offshore carbon credits create a requirement to disclose that obligation in the financial statements of the New Zealand Government?

Illustration of Aotearoa New Zealand's emissions gap



<b>Title</b>	<i>Discussion Paper 2021/04 – An Accounting Dilemma: Does a commitment to purchase offshore carbon credits create a requirement to disclose that obligation in the financial statements of the New Zealand Government?</i> This paper forms part of the Institute’s ClimateChangeNZ project.
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**About the Cover:** Adapted from Figure 22.1: Illustration of the role of international mitigation in the NDC compared to emissions budgets (He Pou a Rangī the Climate Change Commission | *Ināia tonu nei: a low emissions future for Aotearoa*, May 2021, p. 360).

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# 1.0 Introduction

The purpose of this paper is to explore whether a commitment by the New Zealand Government to purchase offshore carbon credits to offset emissions should be disclosed in the financial statements of the New Zealand Government. It discusses how – if yes – such a liability might be treated as a provision or as a contingent liability and whether the financial value can be determined reliably (and, if so, on what information this conclusion should be based).

In attempting to answer the overarching research question, four accounting questions were identified, explored, discussed and, where possible, answered. Section 2 sets out the methodology and Section 3 describes the background. Section 4 attempts to answer each question. Section 5 provides a discussion of what this means for New Zealand, and the wider implications for other governments (that prepare financial statements) and international standard setters (that prepare standards) going forward.

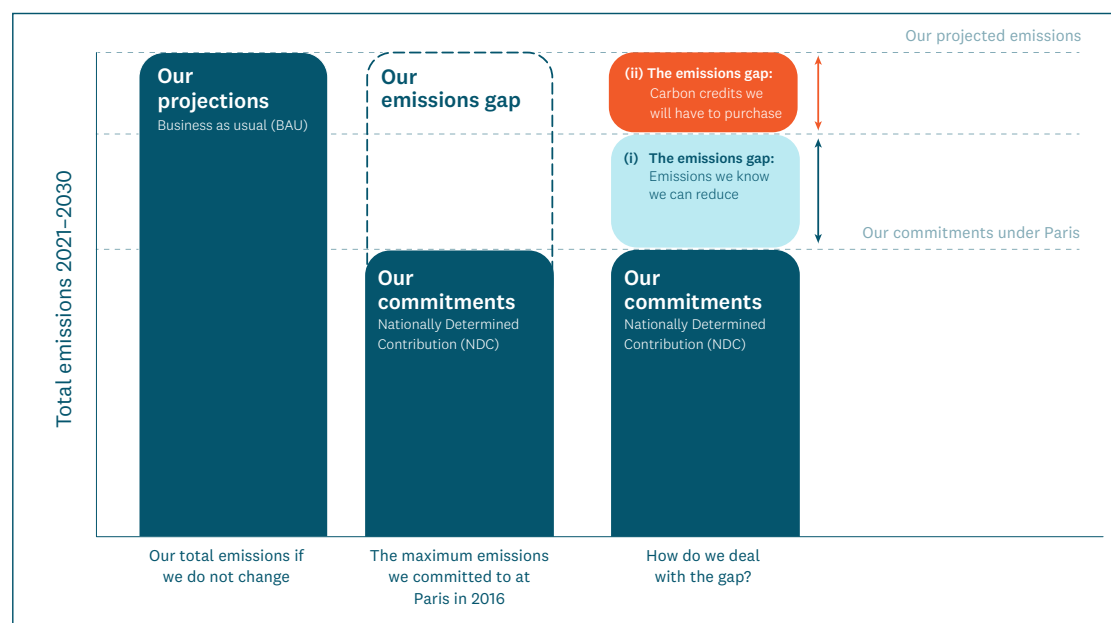
This paper is not exploring whether the obligation to disclose the commitment to purchase offshore carbon credits in the financial statements of the New Zealand Government is good or bad public policy, or whether offshore carbon credits should be purchased or not. Rather, the only issue being explored in this paper is whether this obligation should be reported in the financial statements of the New Zealand Government and, if a disclosure is believed to be useful, where it should be disclosed in the financial statements and at what value? The accounting dilemma is one of timing and transparency.

The size of this obligation, what is called our emissions gap, is shaped by the difference between our projections and our nationally determined contribution (NDC) (see Figure 1 below, also on the front cover). Once our expected emission reductions from country-wide actions are deducted, a shortfall is created. Unfortunately, this shortfall can only be met through purchasing offshore carbon credits.

On 12 October 2021, the Treasury published the *Financial Statements of the Government of New Zealand for the Year Ended 30 June 2021*.<sup>1</sup> Given that the latest financial statements do not mention the above-mentioned obligation to purchase offshore carbon credits, the Institute was interested to explore whether another perspective was possible. This paper is the result.

This is a new and emerging area of accounting, and the findings may have implications not just for New Zealand but for all nation states that produce financial statements. If you can argue that climate policy (strategy) and accounting policy (reporting) should be linked, the question then becomes not if, but when should this obligation be reported in the financial statements of nation states? This paper aims to contribute to a discussion on how financial statements should report climate obligations to citizens, in much the same way the Task Force on Climate-related Financial Disclosures (TCFD) discloses climate risks to stakeholders.

Figure 1: Illustration of Aotearoa New Zealand’s emissions gap



## 2.0 Methodology

The purpose of this paper is to explore what information should be disclosed, where and when, on the basis that this information is likely to be useful and relevant as the Government, businesses and the public transition to a net zero economy.

The New Zealand Government's commitment to purchase offshore carbon credits in order to offset emissions is relevant, decision-useful information that should be in the public arena. This paper builds on the Institute's *Discussion Paper 2019/01 – The Climate Reporting Emergency: A New Zealand case study* (2019) and *Report 17 – ReportingNZ: Building a Reporting Framework Fit for Purpose* (2020).

This paper tests the extent to which existing generally accepted accounting practice (GAAP) provides adequate guidance on how this obligation may (or may not) be reported in the financial statements of the New Zealand Government. For example, if the application of GAAP provides little guidance or creates uncertainty over the accounting treatment of this obligation, this raises a further question – whether GAAP should be amended to provide more clarity, so that the purpose of financial reporting better aligns with the purpose of the New Zealand Government's strategic intentions and global climate policy more generally.

This paper also raises a number of policy questions that are not discussed but may ultimately impact reporting in the future. For example, if it is decided that this obligation should be disclosed in the financial statements of the New Zealand Government, this calls into question whether all for-profit entities and not-for-profit public benefit entities who publicly commit to purchase offshore carbon credits to offset emissions should also recognise this liability or contingent liability in their financial statements.

In addition, recognising this liability in the financial statements of the New Zealand Government may shape public policy going forward. For example, rather than purchase offshore carbon credits, the Government may decide to pay farmers 'not to farm' livestock, or pay manufacturers to switch to electric process heating (EPH).

### 2.1 Method

Four accounting questions were identified (illustrated in Figure 2) to address the treatment of the New Zealand Government's commitment to purchase offshore carbon credits under current GAAP:

- Question 1:** Does a legal or constructive obligation exist?
- Question 2:** Is it a recognised liability (and treated as a provision in the financial statements)?
- Question 3:** Is it a contingent liability (and treated as a note to the financial statements)?
- Question 4:** Can the value be reliably estimated?

### 2.2 How are emissions measured?

Ensuring pledges are communicated in a consistent and transparent manner is essential if international partners, firms, and the public are to effectively assess New Zealand's targets over time, as well as compare New Zealand's targets with those of other countries.

There are many ways to count greenhouse gasses, the most common methods being gross emissions, net emissions or the emissions budget approach. New Zealand has used both the net emissions and the emissions budget approaches. On 31 October 2021, the Government announced it was updating its NDC target, and in doing so, described the comparability challenge:

The updated NDC announced today is expressed as a target to reduce net emissions 50 per cent below gross 2005 levels by 2030. This equates to a 41 per cent reduction on 2005 levels using what is known as an 'emissions budget' approach.

New Zealand's updated NDC has been expressed as a point-year target today to align with how most other countries report their NDC's. This aids transparency and comparability. To date, only a small number of countries, including New Zealand, Australia, and Switzerland, report their NDCs as an 'emissions budget.'

Despite expressing the new NDC as a ‘point in time’ target, New Zealand’s NDC will still be managed as a multi-year emissions budget. This means New Zealand will be accountable for all emissions produced in the years of the target period (2021–2030).

The Government continues to believe this provides greater certainty in emissions pathways. The budget-based approach is better for the climate, as it is not only emissions in 2030 that impact climate outcomes. Managing the NDC through an emissions budget means progress towards our target will be measured by comparing emissions for all the years of the target period (2021–2030) and not by isolating emissions in a single year (2030).

The provisional emissions budget for the new NDC is 571 Mt, a significant decrease on the 2016 NDC budget (623 Mt).<sup>2</sup>

The different measurement methods make it difficult to compare an emission target for a specific country over time or compare an emission target for two or more nations at one point in time.

## 2.3 Does an international emission trading system exist?

International emission trading is wickedly complex, and despite efforts to establish a trading mechanism under the Paris Agreement, no well-established trading system exists (the closest is arguably the EU ETS). Despite the lack of progress to date, there are a number of ways entities could purchase offshore abatement to count towards domestic targets (see Table 1 below).

**Table 1: Possible ways an entity might purchase offshore carbon credits**

Source: (Personal communication, L. Rule, 4 November 2021)

The Wild West approach	Linking trading schemes	Bi or multi-lateral arrangements
Anything goes. Countries and firms shop around the world looking for emission reduction projects and claim the offsets, either within the bounds of established trading schemes, or outside existing structures.	The NZETS is linked with an equivalent offshore trading scheme, such as the EUETS, allowing the transfer of units between the two schemes.	Countries sign agreements setting out how they will count emissions sequestered in one jurisdiction but funded by another jurisdiction. This can be done between individual countries, or by groups of countries.
Prior to the signing of the Paris Agreement, which prioritised the environmental integrity of international emissions trading activities, many countries, including New Zealand, allowed international offsets of dubious integrity into their domestic trading schemes.	Linking carbon pricing schemes is difficult, as they are generally very complex and designed with domestic considerations in mind. For example, minor differences such as the treatment of forests lost to flood or fire can be major barriers to international linking.	An example of a bi-lateral arrangements might be New Zealand signing an agreement with Brazil to fund the planting of forests and count the sequestration towards our NDC. Such an agreement would have to ensure Brazil did not also count the sequestration towards their own international commitments.

## 2.4 What is GAAP?

Generally accepted accounting practice (GAAP) can take the form of either reporting standards or an authoritative notice issued by the New Zealand External Reporting Board (XRB). The XRB is an independent Crown entity responsible for accounting and auditing and assurance standards in New Zealand. Under the Public Finance Act 1989, GAAP has the same meaning as in s 8 of the Financial Reporting Act 2013. Relevant sections in the Financial Reporting Act 2013 are:

### Section 5(1): Interpretation

**authoritative notice** means a notice issued under section 12(c); and includes an amendment to an authoritative notice that is issued by the Board.

### Section 8: Meaning of generally accepted accounting practice

In this Act, financial statements, group financial statements, a report, or other information complies with generally accepted accounting practice only if the report, statements, or information comply with—

- (a) applicable financial reporting standards; and
- (b) in relation to matters for which no provision is made in applicable financial reporting standards, an authoritative notice.

## Section 12: Functions of Board

...

- (c) to prepare and, if it thinks fit, issue authoritative notices for the purposes of the definition of generally accepted accounting practice:

GAAP is also defined in the XRB accounting standards *EG A1: Explanatory Guide A1: Accounting Standards Framework (For-Profit Entities Plus Public Sector Public Benefit Entities Update) (with legislative compilation)* as:

- 19 GAAP is defined in section 8 of the Financial Reporting Act 2013 and means compliance with:
  - (a) Applicable accounting standards; and
  - (b) “Authoritative Notices”.
- 20 In accordance with this definition, accounting standards issued by the XRB Board or the NZASB are the primary indicators of GAAP in New Zealand. They set out the recognition, measurement, presentation and disclosure requirements for transactions and events that are important in the preparation of GPFR, including those that may arise in specific industries.<sup>3</sup>

## 2.5 Where is the obligation to prepare and publish annual financial statements?

The obligation to prepare and publish the annual financial statements of the New Zealand Government is set out in the Public Finance Act 1989. The reporting requirements set out in the Public Finance Act 1989 require both annual and interim financial statements to apply generally accepted accounting practice (GAAP):

### Section 2(1): Interpretation

[F]orecast financial statements means a set of statements that consists of—

- (a) a forecast statement of financial performance; and
- (b) a forecast statement of financial position; and
- (c) a forecast statement of cash flows; and
- (d) any other forecast financial statement required by generally accepted accounting practice; and
- (e) any other forecast financial statement required for a reporting entity by any regulations made, or instructions issued, under this or any other Act

### Section 26H: Generally accepted accounting practice

All financial statements and forecast financial statements included in reports and updates required under this Part must be prepared in accordance with generally accepted accounting practice.

### Section 26Q: Fiscal forecasts

- (1) The fiscal forecasts contained in the economic and fiscal update prepared under section 26O must, **for each of the 3 financial years to which they relate, include forecast financial statements.**

### Section 27: Annual financial statements of Government

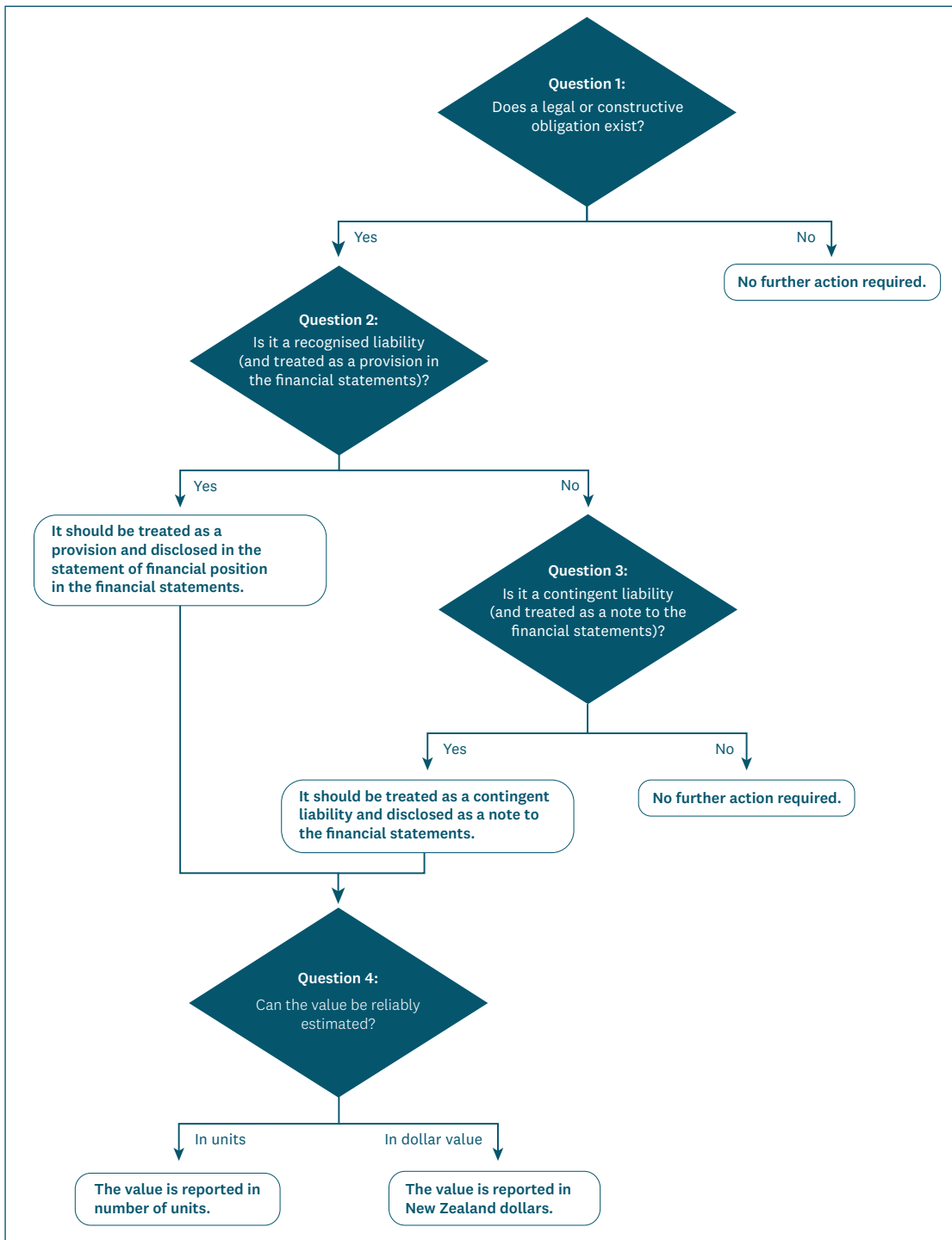
- (1) The annual financial statements of the Government must—
  - (a) be prepared in accordance with generally accepted accounting practice; and
  - (b) include the forecast financial statements prepared under section 26Q, for comparison with the actual financial statements; and
  - (c) include, **in addition to those financial statements required by generally accepted accounting practice,—**
    - (i) a statement of borrowings that reflects the borrowing activities for that year, including budgeted figures for that year and comparative actual figures for the previous financial year;
    - (ii) a statement of unappropriated expenses and capital expenditure and unauthorised capital injections (excluding any capital injection to an intelligence and security department):



- (iii) a statement of emergency expenses and capital expenditure incurred under section 25 and emergency capital injections (excluding any capital injection to an intelligence and security department) made under section 25A:
- (iv) a statement of trust money administered by departments and Offices of Parliament:
- (v) **any additional information and explanations needed to fairly reflect** the consolidated financial operations of the Government reporting entity for the financial year and its consolidated financial position at the end of that year. [bold added]

Two further factors are worthy of mention: the fiscal forecasts are required to look ahead three years (see s 26Q above), and the annual financial statement of Government ‘must’ contain additional information and explanations to ‘fairly reflect’ the Government’s financial operations and financial position (see s 27 above).

Figure 2: The accounting logic: Four accounting questions



## 3.0 Background: Timeline of key events

On 2 December 2020, the Government passed a motion to declare a climate emergency, with 76 ayes to 43 noes.<sup>4</sup> Less than 12 months later, on 21 October 2021, the Financial Sector (Climate-related Disclosures and Other Matters) Amendment Bill passed its third reading, requiring large financial organisations to disclose and ultimately act on climate-related risks and opportunities. Interestingly, this motion was passed with 110 ayes to 10 noes; indicating a strengthening of MP support and a broader commitment to current climate change policy. Relevant events that will be discussed in Section 4 are listed below. More detail is provided in Appendix 1: Timeline of climate-related policy.

### 3.1 New Zealand signs the Kyoto Agreement on 23 May 1998

New Zealand signed the Kyoto Agreement on (or about) 23 May 1998, and then ratified it on 11 December 2002.<sup>5</sup> The New Zealand Parliament website states:

The first commitment period (CP1) of the Kyoto Protocol to the United Nations Framework Convention on Climate Change, which set **legally-binding emission reduction targets** for 37 industrialised countries, came to an end in 2012. Although a second commitment period (CP2) is now in place over 2013 to 2020, not all countries that participated in CP1 have signed on for CP2, including New Zealand... New Zealand remains a party to the Kyoto Protocol but is taking a quantified economy-wide GHG emission reduction target of five percent below 1990 levels under the [United Nations Framework Convention on Climate Change] UNFCCC over the 2013 to 2020 period. **The main difference is that the Kyoto Protocol is legally-binding whereas the UNFCCC agreement is not.** [bold added]<sup>6</sup>

### 3.2 Climate Change Response Act 2002 passed

The second reading of the Bill took place on 5 November 2002, which resulted in 63 ayes to 57 noes. On 18 November 2002, the Climate Change Response Act 2002 became law. The current purpose of this Act (including amendments) is set out in s 3(1), and includes to:

- (aa) provide a framework by which New Zealand can develop and implement clear and stable climate change policies that—
  - (i) contribute to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels; and
  - (ii) allow New Zealand to prepare for, and adapt to, the effects of climate change:
- (a) enable New Zealand **to meet its international obligations under the Convention, the Protocol, and the Paris Agreement**, including (but not limited to)—
  - (i) its obligation under Article 3.1 of the Protocol to retire Kyoto units equal to the number of tonnes of carbon dioxide equivalent of human-induced greenhouse gases emitted from the sources listed in Annex A of the Protocol in New Zealand in the first commitment period starting on 1 January 2008 and ending on 31 December 2012; and
  - (ii) its obligation to report to the Conference of the Parties via the Secretariat under Article 12 of the Convention, Article 7 of the Protocol, and Article 13 of the Paris Agreement [bold added]

### 3.3 Greenhouse gas emissions target set on 31 March 2011

On 31 March 2011, Hon Nick Smith, Minister for Climate Change Issues, ‘set a target for a 50% reduction in New Zealand greenhouse gas emissions from 1990 levels by 2050’ in the Gazette (pursuant to s 224 of the Climate Change Response Act 2002).<sup>7</sup> This section of the Act was later repealed on 14 November 2019 and replaced by s 11 of the Climate Change Response (Zero Carbon) Amendment Act 2019.

### 3.4 New Zealand signs the Paris Agreement on 22 April 2016

In 2016, Hon Paula Bennett, Minister for Climate Change Issues, tabled a Cabinet Paper at the Cabinet Economic Growth and Infrastructure Committee, seeking support of ministers to sign the Paris Agreement.<sup>8</sup> The executive summary of the Cabinet Paper states:

The historic Paris Agreement on climate change was concluded at the twenty-first Conference of Parties to the United Nations Framework Convention on Climate Change (COP 21) on 12 December 2015. It ensures, for the first time, all countries will now contribute to the global response to climate change on an equal legal footing. The intended nationally determined contributions (INDCs) pledged under the Agreement cover Parties responsible for 99% of global emissions.

I propose New Zealand signs the Agreement on 22 April at the high-level signing ceremony to be convened in New York. Signing signals our intention to be bound by the Agreement. I expect we will be in a position to ratify the Agreement within a 2-3 year timeframe.

New Zealand's INDC (for the period 2021-2030) was tabled on a provisional basis pending clarification of rules under the Agreement relating to accounting for land sector emissions and use of carbon markets. New Zealand will not need to communicate its finalised first nationally determined contribution (NDC) until it ratifies the Agreement.

The Agreement satisfies the expectations set out in the negotiation mandate approved by Cabinet. In particular, New Zealand's interests are well protected by the excellent outcome on international carbon markets. Provisions on accounting for the land sector and transparency align closely with New Zealand priorities. (paras 1-4)<sup>9</sup>

The Cabinet Paper also mentions that officials advised Cabinet that the Crown's financial statements would not be impacted at this time because, at present, no legally enforceable obligation to disclose existed. However, the Cabinet Paper implied that such an obligation may exist in the future – if the target were to become internationally binding and/or domestically enforceable:

The Paris Agreement sets out obligations and expectations of Parties at a high level, and is accompanied by a Conference of Parties (COP) decision containing additional detail and establishing a forward work programme. The Agreement contains both **legally binding obligations** ("Parties shall...") and **political expectations** (provisions that Parties "should", are "invited" or "encouraged" to adhere to). (para 11)

Financial and economic implications will result from obligations to take progressively higher emission reduction targets and provide progressively greater amounts of financial assistance to developing countries. The economic cost of New Zealand's 2021-2030 target is estimated at \$36 billion (2012 prices), or 1.20% Real Gross National Disposable Income (RGNDI). The costs of our subsequent targets under the Paris Agreement and future packages of financial assistance to developing countries are unknown. (para 46)

Officials advise that the 2030 target should not be reflected in the Crown accounts at this time. Whether the target will be included in Crown accounts **depends on the degree to which the target is internationally binding, as well as the domestic enforceability of the target**, including any obligation on the Crown to expend resources to meet the target. **Since there is currently no legally enforceable obligation on the Crown to expend resources to meet the target, there is no requirement to reflect this in Crown accounts currently.** [bold added] (para 47)<sup>10</sup>

New Zealand ratified the Paris Agreement on 4 October 2016, committing the country setting an emissions reduction target that would be regularly updated.<sup>11</sup> The Paris Agreement entered into force on 4 November 2016 and took effect from 2020. The Paris Agreement (Article 4, paragraph 2), contained in Schedule 2A of the Climate Change Response Act 2002, states:

2. Each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.

Nationally determined contributions (NDCs) embody efforts by each country to reduce national emissions and adapt to the impacts of climate change. To meet our NDC, a range of mitigations must take place domestically, whether voluntarily or through government policies and/or legislation. Certain entities in New Zealand are required to mitigate their own emissions either by reducing emissions and/or by buying emission offsets domestically or from offshore.

The Ministry for the Environment's website states:

Ratification also commits us to:

- continue to regularly report on its emissions and how it is tracking towards meeting the target
- continue to provide financial support to assist developing countries' mitigation and adaptation efforts
- plan for adaptation.<sup>12</sup>

### 3.5 Climate Change Commission's Final Advice published on 31 May 2021

On 31 May 2021, the Climate Change Commission's first advice to the New Zealand Government was published. The report was delivered to the Minister of Climate Change and then tabled in Parliament in June 2021.<sup>13</sup> One of the issues raised was how ambitious New Zealand might want to be in terms of our NDC (see excerpt of the report in Appendix 2). The Paris Agreement allows parties to increase the ambition of their NDCs. There are domestic and international calls for developed nations, like New Zealand, to lower emissions faster than set out in their original Agreement. If New Zealand were to increase its NDC, this action would likely lead to an equivalent increase in our obligation to purchase additional offshore carbon credits. An article in *Stuff* on 2 February 2021 put it this way:

"The NDC (Paris target) is always set on the basis of what *should* we do. Domestic action is about what *can* we do, and they do interplay," commission chair Rod Carr told *Stuff*.

But even to meet a target with middling ambition, the costs could be anywhere from \$1.9b and \$11.5b, according to commission's analysis. The price depends on the cost of carbon, and how much additional income is assumed to be lost to New Zealand by sending the money overseas.

At a \$50 global carbon price, with no added penalty for wider costs, the projected cost would be \$3.2b for a middling level of ambition, the commission said.

Carr said the numbers were highly uncertain. "We don't know the quantity... of our NDC because we're suggesting we should see much more than 35 per cent reduction. We don't know the price per (carbon) unit, because there is no global market for offshore mitigation [yet]. And then we don't know exactly what the terms of trade effects of paying away are, rather than doing more domestic action."

"We don't have a good handle on what that is."

Although the 2030 cost is widely uncertain, the Government likely needs to make a decision this year – before Glasgow climate summit in November.

**Whatever the ultimate price is, Carr and his fellow commissioners want the Government to be more upfront about the effect on its balance sheet.**

"That's why we say that the Government needs to annually report on the liability under the NDC that it should choose to settle on," he said.

That added cost, called a multiplier, could be slapped on the total to reflect the fact that when money is spent on tree planting or building renewable energy overseas, New Zealand misses out on, not only the upfront cost, but also trickle-down benefits to the wider economy when the money is re-spent. [bold added]<sup>14</sup>

The Commission's report makes clear that climate risks should be disclosed:

Without clear and transparent information about exposure to climate risk, firms, lenders, investors, insurers and other stakeholders may be left with unforeseen liabilities or risks...

The mandatory climate-related financial disclosures regime recently enacted by the Government is an important step in improving transparency and information about climate risk in Aotearoa. It draws on the recommendations of the Task Force on Climate-related Financial Disclosures, which are considered international best practice for climate-related financial reporting. (pp. 247 and 248, paras 84 and 88)<sup>15</sup>

The Commission discusses the factors relevant to setting the level of the NDC in chapter 22 of its report, under a subsection titled *Aotearoa should plan for how it will meet the NDC*.<sup>16</sup> Section 22.3.1: *It is not yet clear how Aotearoa will access offshore mitigation*, states:

The need for offshore mitigation to meet the NDC also raises the question of how the purchasing will be paid for and managed. Purchasing could be undertaken by the Government or by emitters, and this will depend in part on how Aotearoa secures access to international emissions markets. (p. 366, para 54)<sup>17</sup>

Section 22.3.2: *Accountability and reporting on the NDC will be critical*, also states:

The credibility of the NDC relies on the Government showing its intent to achieve both the domestic and international emissions reductions required to meet it. Domestic emissions budgets and the emissions reduction plan will fulfil the former, **but it is not yet clear how the government will deliver the latter**.

The Government should develop a plan for how it will access and purchase offshore mitigation and take steps to implement it. **This will demonstrate a credible commitment to meeting the NDC both domestically, and to the international community**. It will not be responsible for Aotearoa to wait for others to develop the markets for us, or leave this until the late 2020s – this work needs to start now.

**Our domestic and international reporting and accounting framework does not currently provide enough information on how meeting the NDC, including through purchasing offshore mitigation, may impact on public finances...**

Given that the Government intends to require a range of businesses to disclose climate change risks in their financial reports, it is not unreasonable to expect the Government to do the same. We therefore consider that the Government should hold itself accountable for meeting the NDC through regular transparent reporting, including the disclosure of any fiscal risks that may arise from the purchasing [of] offshore mitigation and its strategy for managing those risks. (p. 367, paras 55–58)<sup>18</sup>

The Commission's report made the following recommendation:

We recommend that the Government should:

1. In making its decisions, continue to enable the NDC to be met through a combination of domestic emission reductions, domestic removals, and use of international carbon markets.
2. Report annually on how it plans to meet the NDC, including the balance of planned domestic emission reductions, removals, and offshore purchasing.
3. Clearly communicate its strategy for purchasing offshore mitigation to meet the NDC and how it will identify and manage fiscal and other risks and their consequences. (p. 367, Recommendation 31)<sup>19</sup>

On 31 December 2021, the Government must set the first three emissions budgets for the period 2022–2035. From 2022, the Commission will begin monitoring how the Government's emissions reduction plan is implemented, including how well Aotearoa New Zealand is tracking to meet the 2050 net zero target.<sup>20</sup>

## 3.6 Recent developments

Since the Climate Change Commission report was published, a group of 300 lawyers have decided to take the Commission to court, alleging their carbon-cutting plan is inconsistent with the goal to limit global warming to 1.5 degrees Celsius.<sup>21</sup> This case is likely to draw from a recent Netherlands civil court ruling that found Shell must, by 2030, cut its CO<sub>2</sub> emissions by 45% (compared to 2019 levels).<sup>22</sup> Although Shell have said they will appeal the decision, the court ruling takes a view that it is ‘not good enough for firms to comply with [a country’s law on emissions] ... they have to comply with global climate policy too’.<sup>23</sup> This implies that signatories, like the New Zealand Government, may be legally obliged to comply with global climate policy (as set out in the 2016 Paris Agreement).

The Climate Change Response (Zero Carbon) Amendment Act 2019 (13 November 2019) amended the Climate Change Response Act 2002, setting out both the target for 2050, and the requirement for the Minister (being the Minister of Climate Change) to prepare an emissions reduction plan every five years from 2026 (with the exception of the first three years [being 2022 to 2025, see s 5X, overleaf]).

### **Part 1A: Climate Change Commission**

#### **5Q Target for 2050**

- (1) The target for emissions reduction (the 2050 target) requires that—
  - (a) net accounting emissions of greenhouse gases in a calendar year, other than biogenic methane, are zero by the calendar year beginning on 1 January 2050 and for each subsequent calendar year;
  - (b) emissions of biogenic methane in a calendar year—
    - (i) are 10% less than 2017 emissions by the calendar year beginning on 1 January 2030; and
    - (ii) are 24% to 47% less than 2017 emissions by the calendar year beginning on 1 January 2050 and for each subsequent calendar year.
- (2) The 2050 target will be met if emissions reductions meet or exceed those required by the target.

#### **5ZG Requirement for emissions reduction plan**

- (1) The Minister must prepare and make publicly available a plan setting out the policies and strategies for meeting the next emissions budget, and may include policies and strategies for meeting emissions budgets that have been notified under section 5ZD in accordance with the dates set out in section 5X(3).
- (2) The plan must be prepared and published—
  - (a) after the relevant emissions budget has been notified under section 5ZD; but
  - (b) before the commencement of the relevant emissions budget period.
- (3) The plan must include—
  - (a) sector-specific policies to reduce emissions and increase removals; and
  - (b) a multi-sector strategy to meet emissions budgets and improve the ability of those sectors to adapt to the effects of climate change; and
  - (c) a strategy to mitigate the impacts that reducing emissions and increasing removals will have on employees and employers, regions, iwi and Māori, and wider communities, including the funding for any mitigation action; and
  - (d) any other policies or strategies that the Minister considers necessary.

Importantly, it is the 2030 NDC target that may, directly or indirectly, trigger a legal obligation to purchase offshore carbon credits, because the counter-factual (not meeting our Paris Agreement via our domestic reductions) will become more obvious over time, and the purchase of offshore carbon credits more imminent (a maximum of eight years away).

### **5X Duty of Minister to set emissions budgets and ensure they are met**

- (1) The Minister must set an emissions budget for each emissions budget period in accordance with this subpart
- (2) From 31 December 2021, there must be 3 consecutive emissions budgets, 1 current and 2 prospective, in place at any one time.
- (3) An emissions budget must be set and notified in the Gazette under section 5ZD as follows:
  - (a) for the emissions budget period 2022 to 2025, by 31 December 2021:
  - (b) for the emissions budget period 2026 to 2030, by 31 December 2021:
  - (c) for the emissions budget period 2031 to 2035, by 31 December 2021:
  - (d) for the emissions budget period 2036 to 2040, by 31 December 2025:
  - (e) for the emissions budget period 2041 to 2045, by 31 December 2030:
  - (f) for the emissions budget period 2046 to 2050, by 31 December 2035:
  - (g) or any subsequent emissions budget period, by 31 December not less than 10 years before that emissions budget period commences.
- (4) The Minister must ensure that the net accounting emissions do not exceed the emissions budget for the relevant emissions budget period.

On 15 September 2021, Cabinet agreed to begin consultation on the Emissions Reduction Plan in early October 2021, and promised to release a final Emissions Reduction Plan in May 2022 (in line with the 2022 Budget).<sup>24</sup> The international equivalent to New Zealand's Emissions Reduction Plan is the Long-Term Low Emissions Development Strategy (LT-LEDS) which will be released at COP 26.

On 31 October 2021, as noted in Section 2.2 above, the Government announced an update to the original NDC (referred to as NDC2):

New Zealand will significantly increase its contribution to the global effort to tackle climate change by reducing net greenhouse emissions by 50 percent by 2030, Prime Minister Jacinda Ardern and Climate Change Minister James Shaw announced today on the eve of the United Nations climate conference in Glasgow.<sup>25</sup>

Appendix 3 sets out New Zealand's current international and domestic emission targets.

## **3.7 Summary**

This section briefly summarises key events that set the background for the discussion in Section 4. Together the events illustrate the evolution of climate policy over time, moving from a policy problem to a policy solution, and in so doing, establishing a pattern of commitment by both major political parties towards the creation of durable and stable climate change policy. The timing and transparency issues are discussed in more detail in the next section.



## 4.0 Four accounting questions

The preparers of the 2021 financial statements continue to follow the recommendations of the April 2016 Cabinet Paper (discussed above) as evidenced by the fact that the *Financial Statements of the Government of New Zealand for the Year Ended 30 June 2021*, published on 12 October 2021, does not mention the obligation to purchase offshore carbon credits in 2030.

The 2016 Cabinet Paper states: '[s]ince there is currently no legally enforceable obligation on the Crown to expend resources to meet the target, there is no requirement to reflect this in Crown accounts currently' (see discussion in Section 3.4). However, the key word here is 'currently'. This raises the issue of whether there have been any events since April 2016 that might trigger a change in the reporting treatment of this obligation, either today or in the future. In particular, has recent amendments to the Climate Change Response Act 2002 changed the view of officials as to 'the domestic enforceability of the target'? See, for example, the text in the 2016 Cabinet Paper in Section 3.4.

This part of the paper explores four accounting questions that the Institute believes should be answered to deliver clarity over whether an obligation to purchase offshore carbon credits should be disclosed in the *Financial Statements of the Government of New Zealand*. The Institute was not only keen to explore whether a commitment to purchase offshore carbon credits would create a requirement to disclose that obligation, but also, if it did, where the obligation would be reported, and at what value. As the Government is a public benefit entity, the questions are explored using Public Benefit Entities (PBE) accounting standards. There are similar accounting standards for For-Profit Entities (FPE).

### 4.1 Questions

#### Question 1: Does a legal or constructive obligation exist?

##### A: Accounting Standards

A 'legal obligation' is defined in accounting standard PBE IPSAS 19: Provisions, Contingent Liabilities and Contingent Assets (PBE IPSAS 19), as an obligation that derives from:

- (a) A contract (through its explicit or implicit terms);
- (b) Legislation; or
- (c) Other operation of law. (para 18)<sup>26</sup>

A 'constructive obligation' is defined in accounting standard PBE IPSAS 19 as:

An obligation that derives from an entity's actions where:

- (a) By an **established pattern of past practice, published policies, or a sufficiently specific current statement**, the entity has indicated to other parties that **it will accept certain responsibilities**; and
- (b) As a result, the entity has created a **valid expectation** on the part of those other parties that it will discharge those responsibilities. [bold added] (para 18)<sup>27</sup>

'Liabilities' are defined in accounting standard PBE IPSAS 1: Public Benefit Entity International Public Sector Accounting Standard 1 Presentation of Financial Statements (PBE IPSAS 1) as:

Present obligations of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits or service potential. (para 7)<sup>28</sup>



A ‘past event’ may create an obligation at a later date; PBE IPSAS 19 states:

An obligation always involves another party to whom the obligation is owed. It is not necessary, however, to know the identity of the party to whom the obligation is owed – indeed **the obligation may be to the public at large**. Because an obligation always involves a commitment to another party, it follows that a decision by an entity’s management, governing body, or controlling entity does not give rise to a constructive obligation at the reporting date, unless the decision has been communicated before the reporting date to those affected by it in a sufficiently specific manner to raise a valid expectation in them that the entity will discharge its responsibilities. [bold added] (para 28)

An event that does not give rise to an obligation immediately may do so at a later date, because of changes in the law or because an act (for example, a sufficiently specific public statement) by the entity gives rise to a constructive obligation. For example, when environmental damage is caused by an entity, there may be no obligation to remedy the consequences. However, the causing of the damage will become an obligating event when a new law requires the existing damage to be rectified, **or the entity publicly accepts responsibility for rectification in a way that creates a constructive obligation**. [bold added] (para 29)<sup>29</sup>

## B: Discussion

### Legal obligation

The Paris Agreement is a legally binding international treaty on climate change, but may not be legally binding in a domestic sense. This means that while New Zealand’s NDC commitment (and the obligation to purchase offshore carbon credits) may be binding under international law, it may not be binding under New Zealand law.

New Zealand legislation has changed quite significantly since officials first provided advice to Cabinet in 2016 (see Cabinet Paper mentioned in Section 3.4 above). Notably, key changes to the Climate Change Response Act 2002 may mean that their advice in 2016 may be very different from their advice today. Examples include:

- On 14 November 2019, the Paris Agreement was included in the purpose of the Climate Change Response Act 2002 (see s 3(1)(aa)), under s 4 of the Climate Change Response (Zero Carbon) Amendment Act 2019.
- On 23 June 2020, an obligation to the Paris Agreement (see s 3(1)(a)) and the text of the actual agreement (see Schedule 2A: Paris Agreement) was included in the Climate Change Response Act 2002, under ss 6(1) and 199 of the Climate Change Response (Emissions Trading Reform) Amendment Act 2020. Section 3(1)(a) recognises that there is an obligation in domestic law ‘to meet its international obligations under the Convention, the Protocol, and the Paris Agreement’. The addition of this text may further strengthen the argument that a ‘legal obligation’, as defined in PBE IPSAS 19, now exists. (See actual text from s 3(1)(aa) and s 3(1)(a) in Section 3.2 above.)

It would be useful to obtain a legal opinion on whether a ‘legal obligation’ exists in 2021, particularly given the interaction between international climate agreements and domestic law is an emerging area of legal interest. There are tensions in existing climate legislation which would benefit from further legal analysis.

### Constructive obligation

The remaining discussion focuses on whether a ‘constructive obligation’ exists. Interestingly, whether a ‘constructive obligation’ existed is not discussed in the 2016 Cabinet Paper and the Institute has not been privy to any other advice by officials as to the reasons why a ‘constructive obligation’ was not discussed.

The ‘constructive obligation’ could have been triggered when the Crown ‘accepted responsibility’ to purchase offshore carbon credits. It can be argued that this occurred:

- When the Crown indicated to the other signatories to the Paris Agreement and to the New Zealand public that it will accept responsibility for the country’s net emissions profile, and/or
- When the Crown indicated to the New Zealand public that it will reduce emissions and, where it cannot, it will purchase offshore carbon credits to make up the difference.

The point at which the Crown created a ‘valid expectation’ that it will discharge those responsibilities is arguably the point in time the constructive obligation was created.

### Possible disclosure triggers

The Institute has identified three past and three future events that might trigger (individually or together) a legal or constructive obligation:

- 1. Global climate policy (past event):** That a constructive obligation was created when New Zealand ratified the Paris Agreement on 4 October 2016, as it created an constructive obligation on all signatories to meet their commitments under the Paris Agreement (e.g. along the lines of the Netherlands civil court ruling mentioned above), and therefore triggers the disclosure of an obligation to purchase offshore carbon credits by all signatories that publish financial statements. In this case, the obligation is between the Crown and other countries, and the debt should be reported in the financial statements dated 30 June 2021 (as this is when the liability begins), and every year until 2030 (or when global climate policy changes). In this proposition, the international obligation rests on the Crown. Importantly, if a large public company in New Zealand does not meet its emission reduction goals, the shortfall becomes the Crown's shortfall (as far as the Paris Agreement is concerned).
- 2. Global climate policy (past event):** That a legal obligation was created on 23 June 2020, with the passing of the Climate Change Response (Emissions Trading Reform) Amendment Act 2020, and the liability started from 1 January 2020. Under this option, a legal opinion should be sought to clarify the situation.
- 3. Greenhouse gases being emitted from 1 January 2020 (past event):** That a constructive obligation was created on the date the first emission was released into the environment (under the Paris Agreement).
- 4. Global climate policy (future event):** That Glasgow delivers an obligation that countries who publish financial statements must align their reporting with their climate policy commitments that creates an constructive obligation.
- 5. National climate policy (future event):** That the Government's emissions budget (to be published on 31 December 2021) and/or the Government's Emissions Reduction Plan (to be published in May 2022), individually or together, trigger/s a constructive obligation. In this case, the obligation is from the Crown to the general public. The debt should be reported in the financial statements dated 30 June 2022.
- 6. National climate policy (future event):** That the Government's 'first purchase' of offshore carbon credits (to meet its 2030 obligations) triggers an ongoing expectation that the Crown will purchase further offshore carbon credits to meet its 2030 target, creating a constructive obligation. Therefore, once the first offshore carbon credits are purchased for this purpose, it creates an ongoing reporting obligation. In this case, the obligation is between the Crown and the general public. The debt should be recognised in the first set of financial statements, after the first purchase takes place (as this is when the liability begins and is the first time it can be measured in quantifiable terms).

### C: Conclusion

The Institute considers that the coming into force of the Paris Agreement set up a 'past event' that, together with greenhouse gases being emitted from 1 January 2020, creates a 'constructive obligation'. Therefore, the accounting standards would indicate that the obligation should ideally have been disclosed in the *Financial Statements of the Government of New Zealand* from 30 June 2020.

Importantly, the Institute considers a legal opinion should be sought to clarify the situation. However, we believe a 'constructive obligation' is likely to exist, triggering the need to answer Questions 2 and 3 below.

## Question 2: Is it a recognised liability?

### A: Accounting Standards

The PBE IPSAS 19 distinguishes between provisions (recognised liabilities) and contingent liabilities:

- (a) Provisions – which are recognised as liabilities (assuming that a reliable estimate can be made) because they are present obligations and it is probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligations; and
- (b) Contingent liabilities– which are not recognised as liabilities because they are either:
  - (i) Possible obligations, as it has yet to be confirmed whether the entity has a present obligation that could lead to an outflow of resources embodying economic benefits or service potential; or
  - (ii) Present obligations that do not meet the recognition criteria in this Standard (because either it is not probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation, or a sufficiently reliable estimate of the amount of the obligation cannot be made). (para 21)<sup>30</sup>

PBE IPSAS 19 makes clear that provisions (recognised liabilities) are only to be recognised when:

- (a) An entity has a present obligation (legal or constructive) as a result of a past event;
- (b) It is probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation; and
- (c) A reliable estimate can be made of the amount of the obligation.

If these conditions are not met, no provision shall be recognised. (para 22)<sup>31</sup>

PBE IPSAS 19 states in regard to ‘past events’:

Financial statements deal with the financial position of an entity at the end of its reporting period and not its possible position in the future. Therefore, no provision is recognised for costs that need to be incurred to continue an entity’s ongoing activities in the future. The only liabilities recognised in an entity’s statement of financial position are those that exist at the reporting date. (para 26)<sup>32</sup>

### B: Discussion

There are many variables affecting the Crown’s liability under the Paris Agreement, for example:

- The Government may increase or decrease New Zealand’s NDC target to reduce greenhouse gas emissions, thereby increasing or decreasing any potential future liability;
- Certain entities in New Zealand are required by law to offset their own emissions – therefore the obligation and liability for the emissions offset may not rest solely on the Crown;
- Government policies may change over the period to require more entities/sectors to meet their own emissions offsets, reducing the Crown’s liability for the emissions offsets;
- Domestically generated offsets may increase (reducing or eliminating the need for the Crown to purchase offshore carbon credits);
- New technology may reduce carbon emissions (reducing or eliminating the need for the Crown to purchase offshore carbon credits); and/or
- The future price of offshore carbon credits may change (affecting the amount of any future liability).

A provision (liability) is recognised only if all three conditions for recognition of a provision set out in

paragraph 22 of PBE IPSAS 19 are met. If those conditions are not met, no provision is required to be recognised.<sup>33</sup>

#### **Paragraph 22(a)**

As discussed under Question 1, the Institute believes that paragraph 22(a) of PBE IPSAS 19 (above) has been met.

#### **Paragraph 22(b)**

It can be argued that paragraph 22(b) of PBE IPSAS 19 has also been met. For example, it is unlikely that domestic actions and policies will be able to totally offset the country's emissions gap. The Institute considers it is highly unlikely that the Crown could legitimately avoid paying for the purchase of offshore carbon credits (future expenditure) by taking a future action, such as changing its policies on how it mitigates future emissions.

This is particularly true given that even a change of government is unlikely to bring about any change in climate change policy. Both major political parties have made it clear that they are committed to the Paris Agreement. The initial Paris Agreement was signed by the National-led government in 2016, and the Climate Change Response (Zero Carbon) Amendment Bill 2019 was passed by a large majority of MPs (the Labour Party, the Green Party, NZ First and the National Party; the only exception being the Act Party). It is therefore the Institute's view that it is highly probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation.

#### **Paragraph 22(c)**

However, the extent to which paragraph 22(c) of PBE IPSAS 19 can be met is less certain. For example, the total cost of offshore mitigation will depend on several future actions and events, including:

- The size of New Zealand's NDC target;
- How much of the NDC is met with domestic emission reductions and removals; and
- The price of offshore mitigation.

These factors may make it difficult to determine a reliable estimate. Therefore, if the Crown wishes to not make any form of disclosure, it could argue that it is too difficult at this time to estimate the value of the liability. See discussion in Question 4 below.

Furthermore, if the Crown has an obligation to disclose a liability (in the form of a provision) at the end of each financial year, it could be argued that the obligation is limited only to the actual amount of emissions offsets required to meet the obligations for that year. This amount meets the definition of a liability because, at balance date, it is probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation for that year, and a reliable estimate can be made of the amount of the obligation.

### **C: Conclusion**

That the 'liability' should be recognised. However, whether it is possible to recognise the liability in the financial statements also depends on whether the amount of the liability can be reliably estimated (see the discussion in Question 4).

## **Question 3: Is it a contingent liability?**

### **A: Accounting Standards**

A contingent liability is defined in accounting standard PBE IPSAS 19 as:

- (a) A possible obligation that arises from past events, and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity; or
- (b) A present obligation that arises from past events, but is not recognised because:
  - (i) It is not probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation; or

- (ii) The amount of the obligation cannot be measured with sufficient reliability. (para 18)<sup>34</sup>

However, contingent liabilities in accounting standard PBE IPSAS 19 may become liabilities as circumstances change such as changes in the probability of occurrence and/or the ability to estimate:

Contingent liabilities may develop in a way not initially expected. Therefore, they are assessed continually to determine whether an outflow of resources embodying economic benefits or service potential has become probable. If it becomes probable that an outflow of future economic benefits or service potential will be required for an item previously dealt with as a contingent liability, a provision is recognised in the financial statements of the period in which the change in probability occurs (except in the extremely rare circumstances where no reliable estimate can be made)... (para 38)<sup>35</sup>

## **B: Discussion**

The discussion under Questions 1 and 2 argue that the Crown has a constructive obligation, not a ‘possible obligation’, in relation to meeting its obligations under the Paris Agreement.

The Crown may not be required to recognise its obligations under the Paris Agreement as a liability in its financial statements (but instead disclose the liability as a contingent liability in the notes to the financial statements) if it does not meet the definition of contingent liability (above): that ‘it is not probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation; or the amount of the obligation cannot be measured with sufficient reliability’.

The discussion under Question 2 indicates that it is unlikely that domestic actions and policies will be able to totally offset the country’s emissions gap. Therefore, it is probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation.

We discuss making reliable estimates in our discussion under Question 4.

## **C: Conclusion**

That if the answer to Question 3 is that it is not a liability, it must be a contingent liability. However, whether it is possible to disclose a contingent liability in the notes to the financial statements will depend on whether the volume can be reliably estimated (see discussion in Question 4).

## **Question 4: Can the value be reliably estimated?**

### **A: Accounting Standards**

PBE IPSAS 19 states:

#### **Reliable Estimate of the Obligation**

The use of estimates is an essential part of the preparation of financial statements, and does not undermine their reliability. This is especially true in the case of provisions, which by their nature are more uncertain than most other assets or liabilities. Except in extremely rare cases, an entity will be able to determine a range of possible outcomes, and can therefore make an estimate of the obligation that is sufficiently reliable to use in recognising a provision. (para 33)

#### **Measurement Best Estimate**

The amount recognised as a provision shall be the best estimate of the expenditure required to settle the present obligation at the reporting date. (para 44)

The best estimate of the expenditure required to settle the present obligation is the amount that an entity would rationally pay to settle the obligation at the reporting date or to transfer it to a third party at that time. It will often be impossible or prohibitively expensive to settle or transfer an obligation at the reporting date. However, **the estimate of the amount that an entity would rationally pay to settle or transfer the obligation gives the best estimate of the expenditure required to settle the present obligation at the reporting date.** (para 45)

The estimates of outcome and financial effect are determined by the judgment of the management of the entity, supplemented by experience of similar transactions and, in some cases, reports from independent experts. The evidence considered includes any additional evidence provided by events after the reporting date. [bold added] (para 46)<sup>36</sup>

The *Public Benefit Entities' Conceptual Framework (PBE Conceptual Framework)* sets out some measurement bases for liabilities. Two of these measurement bases may be relevant for measuring the Crown's obligations to purchase emissions offsets. The measurement bases are the cost of fulfilment and market value. The *PBE Conceptual Framework* states in relation to the cost of fulfilment:

Cost of fulfilment is:

The costs that the entity will incur in fulfilling the obligations represented by the liability, assuming that it does so in the least costly manner. (para 7.74)

Where the cost of fulfilment depends on uncertain future events, all possible outcomes are taken into account in the estimated cost of fulfilment, which aims to reflect all those possible outcomes in an unbiased manner. (para 7.75)

Where fulfilment requires work to be done—for example, where the liability is to rectify environmental damage—the relevant costs are those that the entity will incur. This may be the cost to the entity of doing the remedial work itself, or of contracting with an external party to carry out the work. However, the costs of contracting with an external party are only relevant where employing a contractor is the least costly means of fulfilling the obligation. (para 7.76)

Where fulfilment will not take place for an extended period, the cash flows need to be discounted to reflect the value of the liability at the reporting date. (para 7.78)<sup>37</sup>

The *PBE Conceptual Framework* states in relation to the cost of market value:

Market value for liabilities is:

The amount for which a liability could be settled between knowledgeable, willing parties in an arm's length transaction. (para 7.80)

The advantages and disadvantages of market value for liabilities are the same as those for assets. Such a measurement basis may be appropriate, for example, where the liability is attributable to changes in a specified rate, price or index quoted in an open, active and orderly market. However, in cases where the ability to transfer a liability is restricted and the terms on which such a transfer might be made are unclear the case for market values, even if they exist, is significantly weaker. This is particularly the case for liabilities arising from obligations in non-exchange transactions, because it is unlikely that there will be an open, active and orderly market for such liabilities. (para 7.81)<sup>38</sup>

## **B: Discussion**

PBE IPSAS 19 and the *PBE Conceptual Framework* provide the necessary guidance to enable the estimation of a liability. In this case, the Crown could estimate the cost of fulfilling its obligation by estimating the number of offshore carbon credits it needs to purchase and multiplying this figure by a price per unit from a credible international greenhouse gas emissions trading scheme.

The Institute acknowledges that estimating the cost of fulfilling the Crown's obligation to purchase offshore carbon credits is complicated and requires judgement. Many factors can affect the reliable measurement of the Crown's liability. Besides estimating the number of offshore carbon credits that the Crown is required to purchase each year and the ability to reference international carbon prices in globally accepted markets, other factors include issues such as estimating the probabilities of occurrence and the discount rates to discount the liability. However, as stated in PBE IPSAS 19, the use of estimates is an essential part of the preparation of financial statements, and does not undermine their reliability. This is especially true in the case of provisions and contingent liabilities, which, by their nature, are more uncertain than most other assets or liabilities.

Arguably, a liability (or asset) could be calculated at the financial year end based on the estimated tonnes of offshore carbon credits that is expected to be purchased to meet the NDC in 2030 (i.e. divided by ten years, multiplied by the number of years since 2021). There are arguably a number of methods, see Box 1 (below). Please note the balance date of the financial statements of the New Zealand Government is 31 June, whereas the Paris Agreement is by calendar year.

#### **Box 1: An example of how units might be estimated**

If in 2022, it was estimated that 93 Mt of offsets were needed to meet New Zealand's obligations on 31 December 2030, this would amount to 9.3 Mt each calendar year over the ten year period. In this situation, 4.7 Mt (6 months) should have been disclosed in the financial statements to 31 June 2020, 9.3 Mt (12 months) should have been disclosed in the financial statements to 31 June 2021, and 9.3 Mt (12 months) should be disclosed in the financial statements to 31 June 2022. This means the obligation in the 31 June 2022 financial statements should total 23.3 Mt. The logic can be checked by calculating the annual units figure (9.3 Mt) times the remaining years (in this case 7.5 years) and adding back the recognised liability (being a future liability of 69.7 Mt plus 23.3 Mt equals 93 Mt).

If the estimate changed again in 2023, let us say it was found that 100 Mt of offsets was now needed to meet New Zealand's obligations on 31 December 2030, this would mean that the liability for the units that should be disclosed in the financial statements to 31 June 2023 should now total 35 Mt (10 Mt times 3.5 years). Given 23.3 Mt was recognised in the past, the liability should be adjusted in the financial statements to 31 June 2022 to represent the difference (being 11.7 Mt). The logic can be checked by calculating the annual units figure (10 Mt) times the remaining years (in this case 6.5 years) and adding back the recognised liability (being a future liability of 65 Mt plus 35 Mt equals 100 Mt).

In other words, the focus is on the remaining liability to the year 2030, and accounting adjustments are made to record the estimated volume of offsets that will need to be purchased in the year 2030.

The options for disclosure are therefore:

- By volume only: A note to the financial statements, using the estimated volume of offsets.
- By value (volume times price): A provision (liability) in the financial statements or a note to the financial statements, that includes the estimated value based on an international price of carbon in a credible markets at financial year end (such as the EU ETS). For example, in June 2021 the Average Auction Clearing Price (Euro/allowance) was 52.74.<sup>39</sup>

#### **C: Conclusion**

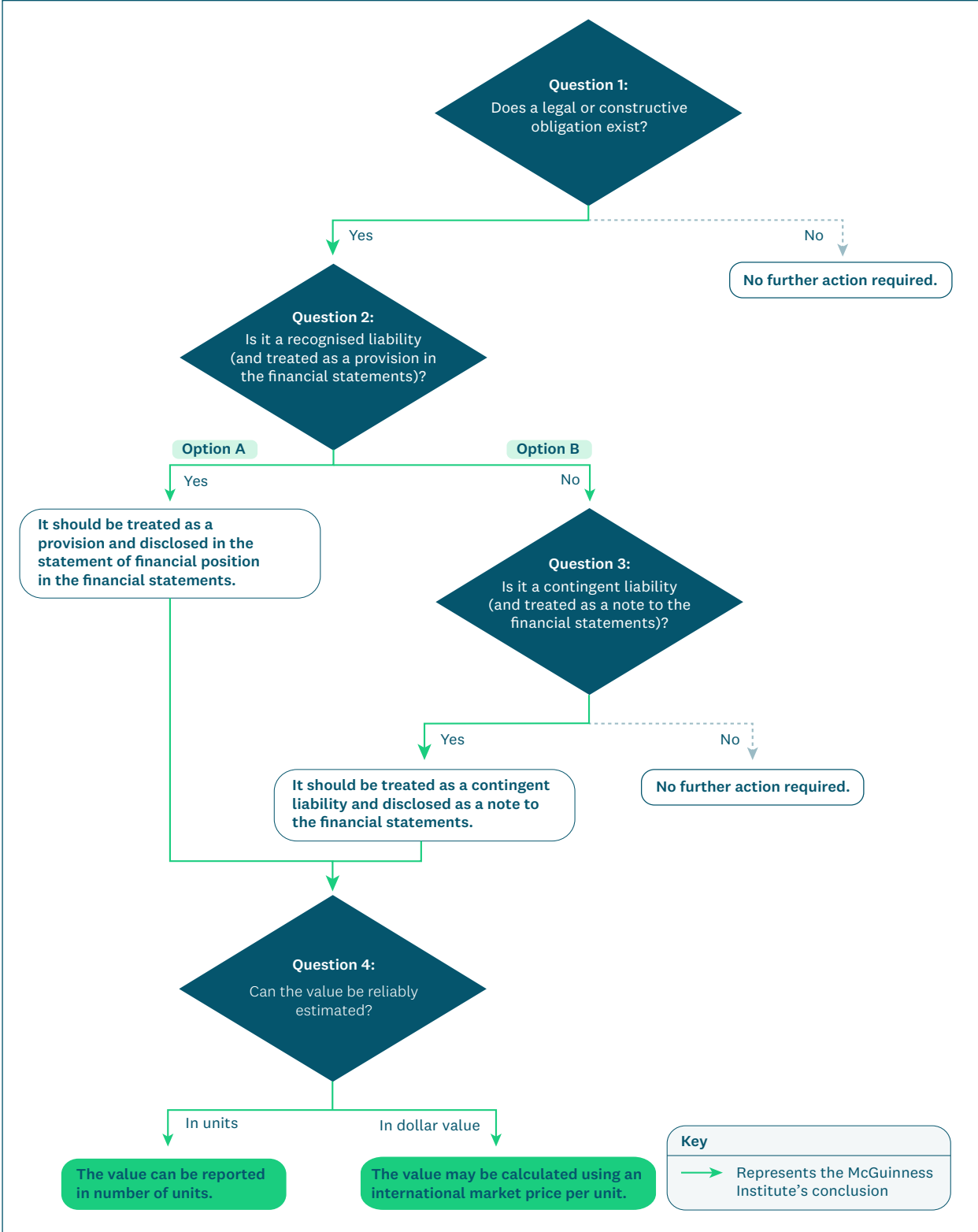
GAAP provides sufficient general guidance to enable the Crown to estimate and report its obligation in terms of metric tonnes. It may be more difficult to estimate a dollar value per metric tonne, but given that an international emission trading system is likely to emerge, a price per metric tonne may become more acceptable and globally recognised in the foreseeable future. Arguably a price per metric tonne is easy to access and reliable at a point of time (in this case 30 June).



## 4.2 Summary

Taking Figure 2 and applying the logic above, it could be argued that two reporting options exist, option A and option B (see green lines in Figure 3).

Figure 3: The accounting logic: Four accounting questions answered





## 5.0 Conclusion

Climate reporting is a new and evolving area in accounting. This discussion paper aims to explore a range of possibilities and draw some conclusions for others to consider, accept or reject, or ideally contribute to. Current GAAP has not been written to specifically address such issues – it only provides general guidance. Judgement is required in the interpretation of accounting concepts in existing GAAP to address climate issues, including the issue of how the Crown should address the purchase of emissions offsets to meet our Paris Agreement obligations. As such, others may reach a different view from the Institute. Figure 3 illustrates our conclusions, and our preference is a provision (a liability) in the financial statements.

### **XRB and GAAP**

The Institute suggests that, if necessary, the GAAP could be amended to address any uncertainty regarding the accounting treatment for this obligation. The New Zealand External Reporting Board (XRB) has a role to play in helping provide more clarity. For example, it could:

- Issue an authoritative notice, domestic guidance or prepare a domestic standard;<sup>40</sup>
- Suggest to the existing International Public Sector Accounting Standards Board (IPSASB) to amend the international standards to provide more clarity; or
- Propose to the new International Sustainability Standards Board (ISSB)<sup>41</sup> and to IPSASB that there is an urgent need to create a new standard that aligns with global climate policy.

### **The New Zealand Treasury and the Financial Statements of the Government of New Zealand**

One area that the Institute believes requires further work by the New Zealand Treasury is a legal opinion on whether a ‘legal obligation’ exists (see discussion in Question 1). This is beyond the scope of this paper but forms a key recommendation. In our view, if a legal obligation is found to exist, the argument for disclosure is further strengthened.

This paper outlines three strategic options for officials at the New Zealand Treasury to consider:

1. GAAP applies (i.e. an obligation exists). The New Zealand Government decides to change its reporting practices to include the liability (or contingent liability). In other words, preparers (and auditors) conclude that it is necessary to report this additional obligation to better ‘fairly reflect’ the financial position of the New Zealand Government in accordance with s 27(2)(v) of the Public Finance Act 1989.
2. GAAP does not apply (i.e. no obligation exists). The New Zealand Government does not change its reporting practices.
3. GAAP does not apply (i.e. no obligation exists), but the New Zealand Government considers this information to be important. In terms of the current accounting treatment for entities that commit to purchase offshore carbon credits, the Crown may still decide that this information should be made available to the public, either in the financial statements (in which case the accounting standards may need to change) or in another public document. In this case, options the New Zealand Treasury might consider include:
  - a. Purchase offshore carbon credits in the short term. This will automatically bring the obligation into the financial statements.
  - b. Publish in the financial statements. Rely on s 27(1)(c)(v) of the Public Finance Act 1989. This enables the Treasury to include in the annual financial statements of Government ‘additional information and explanations’ that ‘fairly reflect’ the Government’s financial operations and financial position, but not necessarily GAAP (see Section 2.5).
  - c. Publish an annual report (that includes the financial statements) and include in the commentary

‘additional information and explanations needed to fairly reflect the consolidated financial operations of the Government reporting entity for the financial year and its consolidated financial position at the end of that year’ in accordance with s 27(2)(v) of the Public Finance Act 1989.

- d. Publish a separate report, focused solely on explaining all relevant assumptions and information associated with this complicated and developing area.
- e. Support an amendment to the Public Finance Act 1989 to require the financial statements to align reporting with the Government’s climate policy to ‘fairly reflect’ the position of the New Zealand Government by taking into account long-term obligations. This could include a specific section that requires our obligations to purchase offshore carbon credits to meet our NDC to be disclosed (along the lines of the list in s 211: Contents of annual report of the Companies Act 1993).

### **Implications for other organisations**

Notably, the New Zealand Government is not the only entity that has made a public statement that it intends to offset carbon emissions through a commitment to purchase offshore carbon credits. This further widens the implications of this emerging area of study for other public and private organisations.

For example, should private organisations that commit to purchase offshore carbon credits at some future point of time, also be required to disclose this obligation in their financial statements or annual report (such as in their management commentary)? However, the accounting treatment for private companies would need to be tested using For-Profit Entities (FPE) accounting standards, and that is beyond the purpose of this paper.

An important distinction between New Zealand’s commitment and other organisations is that the New Zealand Government is committed to purchasing offshore carbon credits from a credible trading scheme (such as the EU ETS), whereas other organisations may decide to disclose using the New Zealand Emissions Trading Scheme (NZ ETS) trading price.

### **Next steps**

This paper explores an interesting and evolving area of climate change policy, and how policy intersects with financial reporting. As noted in the title, it is a dilemma that deserves consideration, research and ongoing discussion.

In our view, accounting for this liability over time makes sense in that we are recognising costs incurred in each reporting period, rather than in 2030. Not to do so would mean the public may not understand and therefore may not act to curb emissions. Including this figure in the financial statements every year until 2030 enables the government and the public to make better decisions in the short term, so that fewer offshore carbon credits are required to be purchased in (or before) 2030 to meet our obligations under the Paris Agreement.

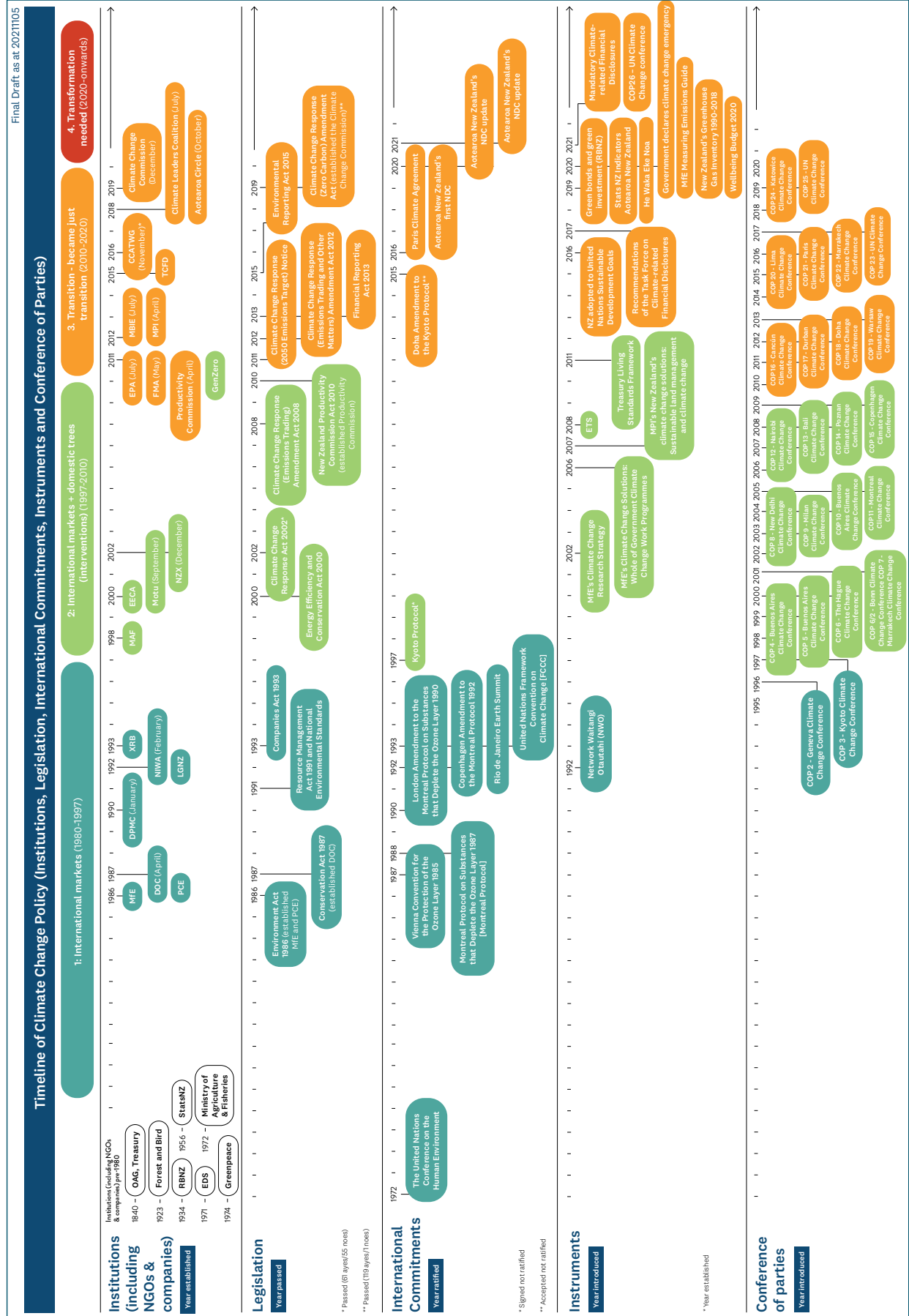
This paper is the first in a series of discussion papers that focus on accounting dilemmas that can be recalibrated and ideally resolved, using current or emerging standards, to create decision-useful information for government, shareholders, investors, employees, bankers, insurers, suppliers, neighbours, communities, and citizens.

### **Invitation to comment**

Thank you for taking the time to read this paper. It has been a very interesting research question to explore. Please contact Wendy McGuinness at [wmcg@mcguinnessinstitute.org](mailto:wmcg@mcguinnessinstitute.org) to share your observations and thoughts, ideally before 1 December 2021. A diverse range of people have already contributed their thoughts and ideas to this paper – thank you!

# Appendix 1: Timeline of climate-related policy

Source: McGuinness Institute. Working Paper 2021/01 – Timeline of climate change institutions and instruments since 1980



## Appendix 2: Excerpt from Ināia tonu nei: a low emissions future for Aotearoa

Source: He Pou a Rangi the Climate Change Commission (2021), (pp. 360-365)

### 22.1 How Aotearoa could meet the NDC

- <sup>9</sup> The NDC sets limits on net emissions over the period. This comprises all gross emissions, any domestic emissions removals (such as from forestry), as well as any international mitigation that Aotearoa decides to purchase (offshore mitigation).
- <sup>9</sup> Emissions reductions to meet the NDC will come from a combination of action within Aotearoa and offshore mitigation. This is illustrated in Figure 22.1 below.
- <sup>10</sup> This is different from emission budgets, which must be met as far as possible through domestic action. The Climate Change Response Act (the Act) limits the use of offshore mitigation in emissions budgets to situations where there has been a major change in circumstances, not accounted for when the budgets were set, which affects the ability to meet the relevant emissions budget domestically.
- <sup>11</sup> Should Aotearoa wish to increase the ambition of its NDC, it could reduce domestic greenhouse gas emissions faster, increase removals of carbon dioxide, or purchase additional offshore mitigation. The Government would need to carefully consider the challenges associated with these options.



Figure 22.1: Illustration of the role of international mitigation in the NDC compared to emissions budgets

### 22.1.1 There is a growing gap between the NDC and net emissions in Aotearoa

- <sup>12</sup> The gap between the NDC and net emissions has arisen because past climate change targets have been met primarily using offsets from exotic production forestry (predominantly pine), rather than reductions in gross emissions.
- <sup>13</sup> For production forests only the first rotation sequesters additional carbon (under international accounting rules). Subsequent rotations of harvesting and replanting maintain the forest's stock of carbon at its long-term average associated with the offsets that have already been used, but not offsetting further emissions. (See Box 22.3 in *2021 Supporting evidence Chapter 3: How to measure progress*). Only expansion to the area planted in forest will generate new offsets.
- <sup>14</sup> To meet previous emissions reduction targets, Aotearoa has principally relied on the large area of forests planted in the 1990s. However, the additional area of new forest planted between 2000 and 2020 was relatively small, compared to the level of planting between 1990 and 2000 (see Figure 22.2 below).
- <sup>15</sup> The last of the forests planted in the 1990s are now reaching their long-term average carbon stock, and are no longer contributing to emissions reduction targets. A smaller area of forest was planted in the 2000s and 2010s. This means that the total amount of emissions offset by forestry is going down. As the total offsetting effect of forests in Aotearoa slows, net emissions will rise significantly between 2019 and 2022.
- <sup>16</sup> Under the Paris Agreement, each new NDC target must represent a progression in ambition on previous targets – targets must become more stringent over time.
- <sup>17</sup> This means that at the same time as emissions removals through forestry are dropping off, the level of allowed emissions under the country's NDC is getting stricter compared to previous targets.

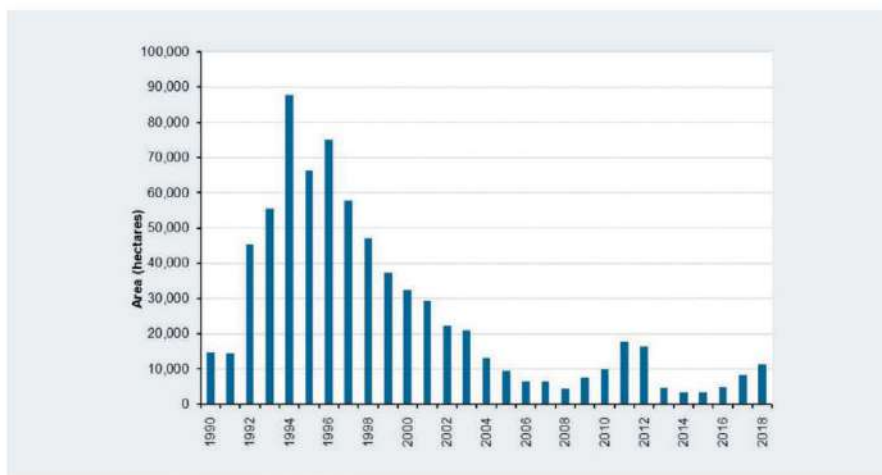
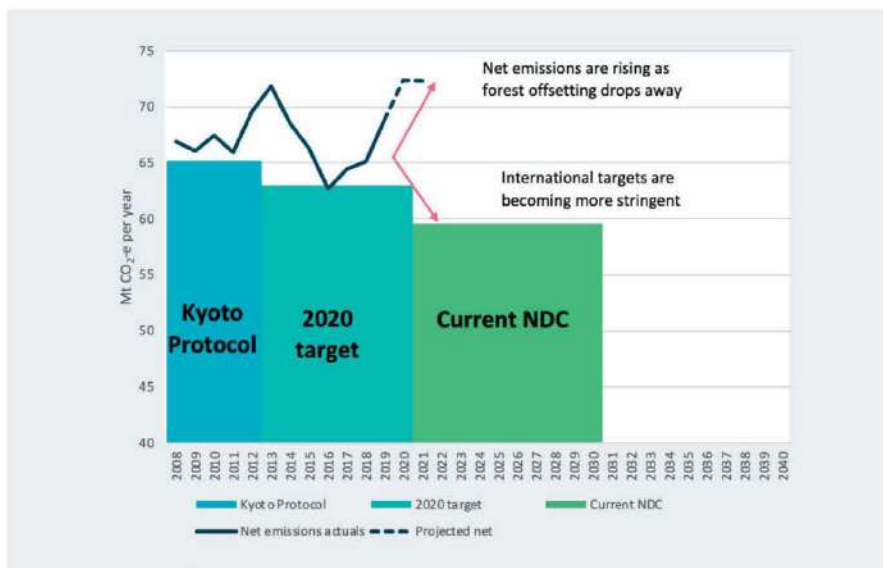


Figure 22.2: Areas of new forest planted in Aotearoa 1990 - 2018

Source: MfE, New Zealand's Greenhouse Gas Inventory 1990-2018



- 18 Our demonstration path includes the ongoing establishment of areas of new forest. This includes significant areas of exotic production forests in coming years, with increasing areas of permanent native forest over future decades. Native forests generally sequester greater amounts of carbon and over a longer period than exotic production pine so represent a more enduring carbon sink.
- 19 The current NDC emissions period has already started and runs to 2030. Increasing planting rates now will assist with meeting future targets, but will not contribute much to meeting the current NDC. This is because it takes around 5-7 years for newly planted forest to start removing significant amounts of carbon.
- 20 Figure 22.3 below shows actual net emissions in Aotearoa (dark blue line) and projected out to 2021 (dotted).
- 21 Net emissions increase as the amount sequestered by our forests drops. The coloured areas illustrate the country's international commitments, which are getting progressively stricter over time. This figure shows the growing gap between emission budgets and the NDC.



**Figure 22.3: New Zealand's past emissions targets and current NDC and projected net emissions (target accounting)**

Note: International commitments under past targets presented here have been recalculated to match the current GHG inventory for consistency of comparison.

### 22.1.2 Meeting the current NDC through domestic action alone would be highly challenging

- <sup>22</sup> The Act states that emissions budgets must be ambitious but achievable. It also states that emissions budgets must be met as far as possible through domestic actions.
- <sup>23</sup> Our recommended emissions budgets, described in our *2021 Supporting Evidence, Chapter 2: What are other countries doing?*, would limit net emissions in Aotearoa to 576 MtCO<sub>2</sub>e over the periods 2022-2025 and 2026-2030 together.
- <sup>24</sup> When forecast emissions for 2021 are included, emissions over the NDC period (2021-2030) would be 648 MtCO<sub>2</sub>e – if our proposed emissions budgets are adopted and achieved.
- <sup>25</sup> Our analysis shows that these emissions budgets are ambitious but achievable and will put Aotearoa on track to meeting the 2050 targets. In recommending these budgets, we have had regard to the matters set out in section 5M of the Act where relevant, and 5ZC (see also Table 3 in *Chapter 3: The role of the Commission*).
- <sup>26</sup> If the Government were to commit to reducing greenhouse gas emissions faster than we propose in our emissions budgets, there is a risk that Aotearoa could lose production in areas where technological solutions to reduce emissions could be applied, if more time were available.
- <sup>27</sup> For example, in food processing, replacing a coal boiler with a biomass boiler requires finding a supplier, and undertaking design work to integrate it into the existing process. If time is not allowed for this to happen, some businesses may simply have to shut down.
- <sup>28</sup> The scale of emissions reductions needed to bridge the gap between emissions budgets and the NDC means that meeting the NDC domestically would likely lead to severe social and economic impacts on communities, people and businesses – far more than would be necessary to achieve the same amount of emissions reductions given more time.
- <sup>29</sup> The likelihood of achieving larger emissions reductions is another consideration. Our modelling shows that it may be possible to reduce emissions more than our budgets propose, but that this requires technologies that are not yet proven – particularly to reduce biogenic methane. Whether these technologies will be successfully developed and deployed is uncertain.
- <sup>30</sup> Committing to achieving greater emissions reductions domestically than we recommend through our emissions budgets introduces significant risks. However, if new technologies are developed and proven in time, Aotearoa would be able to meet a larger portion of its NDC through domestic action. It would also be in a better position to set a more stringent second NDC.

### Box 22.1 Meeting the NDC through domestic action

A number of submitters from the public and NGO community have proposed setting the domestic emissions budgets at the same level as the NDC.

If we set domestic emissions budgets at the level of the NDC, the scale of the reductions needed mean they could not be met without rapidly shutting down many of our emitting activities. For businesses such as farms and factories, the scale of the closures would need to be severe for the budgets to be met. This is because net emissions are starting at a point much higher than the average NDC level and the trajectory is for projected net emissions to rise over the next few years.

We estimated that if the current NDC had to be met solely domestically, an additional 52 MtCO<sub>2</sub>e would need to be reduced over the period *in addition* to the effort required to meet our proposed emissions budgets. Any combination of actions to deliver so much mitigation in so short a time would require large scale cuts to economic output across Aotearoa.

For example, closing iron and steel production from 2025 would bridge less than a third of the gap. In addition, it would require either cuts to all agricultural output of the order of halving output by 2030. Alternatively it would require imposing tight restrictions on private transport use – beyond those that saw the need for carless days in the 1970s – alongside broad cuts to agricultural output.

From an intergenerational equity perspective, excessively fast cuts to emissions would have a legacy impact on the quality of life for younger generations as families are left without employment or essential services.

This pace of change would also disproportionately affect Iwi/Māori in terms of the Māori economy, given its large agricultural base, and Māori workforce who are disproportionately represented in agricultural and manufacturing industries.

We consider that the impacts on people and communities of setting our budgets at the same level as the NDC would be unmanageable.

#### 22.1.3 Offshore mitigation will be required to meet the NDC

- <sup>31</sup> Offshore mitigation refers to where one country funds emissions reductions in another country and counts those reductions towards its own emissions reduction target.
- <sup>32</sup> This is a valid contribution to addressing climate change, as long as the offshore mitigation represents real, verifiable and additional emissions reductions. The benefit to the atmosphere of an emissions reduction is the same, regardless of where it happens.
- <sup>33</sup> In contrast to domestic emissions budgets under the Act, the NDC explicitly allows for offshore mitigation. This means that Aotearoa can contribute more to the global effort than it is currently able to domestically.
- <sup>34</sup> The Paris Agreement recognises that international cooperation through market mechanisms can serve the goals of increasing ambition and of promoting sustainable development and environmental integrity.
- <sup>35</sup> This is consistent with a mātauranga Māori view of the interconnectedness between the climate and global system, and tikanga – doing the right thing in the right way. The NDC represents the total mitigation contribution to the world, beyond just what we can do at home.
- <sup>36</sup> Due to the challenges, risks and likely impacts of meeting the NDC through domestic action alone, offshore mitigation will be critical to meeting the current NDC.



## Appendix 3: International and domestic emission targets

Source: Adapted from Ministry for the Environment website (MfE, 2021).<sup>42</sup>

New Zealand has made commitments to the following international and domestic emission targets.

### A: International targets

International targets are targets that New Zealand accepted as part of international climate change agreements.

- **2020 Target (2013–2020)**

Our net emissions will be 5 per cent below 1990 gross greenhouse gas (GHG) levels for the period 1 January 2013 to 31 December 2020. This target is under the United Nations Framework Convention on Climate Change (UNFCCC).

- **2030 Target (2021–2030)**

NDC1: Our initial target was 30 per cent below 2005 (or 11 per cent below 1990) gross emissions for the period 1 January 2021 to 31 December 2030. This target was New Zealand's first Nationally Determined Contribution (NDC) under the Paris Agreement, and is now commonly referred to as NDC1.

NDC2: On 31 October 2021, this target was further updated to reduce net emissions 50 per cent below gross 2005 levels by 2030 (now referred to as NDC2). This equates to a 41 per cent reduction on 2005 levels using what is known as an 'emissions budget' approach. See discussion in Section 2.2.

### B: Domestic targets under the Climate Change Response Act (CCRA)

Domestic targets are targets that New Zealand decided as part of its domestic policy decisions.

- Net zero emissions of all GHG other than biogenic methane by 2050
- 24 to 47 per cent reduction below 2017 biogenic methane emissions by 2050, including 10 per cent reduction below 2017 biogenic methane emissions by 2030.

# Abbreviations

BAU	Business As Usual
Cabinet	New Zealand Government's body of senior ministers, accountable to the New Zealand Parliament
CO <sub>2</sub>	Carbon dioxide
COP	Conference of Parties
EG	Explanatory Guide
EPA	Environmental Protection Authority
EU ETS	European Union Emissions Trading System
FPE	For-Profit Entities
GAAP	Generally Accepted Accounting Practice
GPFR	General Purpose Financial Reporting
IASB	International Accounting Standards Board
IFRS Foundation	International Financial Reporting Standards Foundation
IPSASB	International Public Sector Accounting Standards Board
INDC	Intended Nationally Determined Contribution
ISSB	International Sustainability Standards Board
LT-LEDS	Long-Term Low Emissions Development Strategy
MfE	Ministry for the Environment
Mt	Metric tonnes
MtCO <sub>2</sub>	Metric tonnes of carbon dioxide
MtCO <sub>2e</sub>	Metric tonnes of carbon dioxide equivalent
NDC	Nationally Determined Contribution
NZASB	New Zealand Accounting Standards Board
NZ ETS	New Zealand Emissions Trading Scheme
NZUs	New Zealand Units
PBE Conceptual Framework	Public Benefit Entities' Conceptual Framework
PBE IPSAS	Public Business Entity, International Public Sector Accounting Standards
PBE IPSAS 1	Presentation of Financial Statements
PBE IPSAS 9	Revenue from Exchange Transactions
PBE IPSAS 19	Provisions, Contingent Liabilities and Contingent Assets
RGNDI	Real Gross National Disposable Income
XRB	New Zealand External Reporting Board

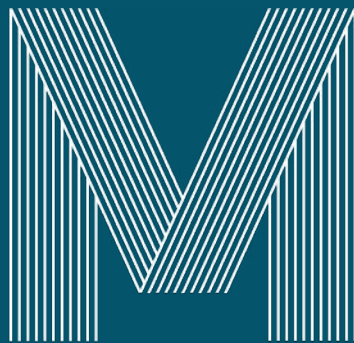
## Endnotes

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- 2 See Ardern, J. & Shaw, J. (31 October 2021). *Govt increases contribution to global climate target* [press release]. Beehive. Retrieved 3 November 2021 from <https://www.beehive.govt.nz/release/govt-increases-contribution-global-climate-target>.
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- 41 It should be noted that the International Financial Reporting Standards Foundation (IFRS Foundation) has recently established the International Sustainability Standards Board (ISSB) to issue sustainability (including climate standards).
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