In-Confidence

Office of the Minister of Climate Change

DEV - Cabinet Economic Development Committee

2022 update to New Zealand Emissions Trading Scheme limits and price control settings for units

Proposal

- I seek Cabinet approval to update the New Zealand Emissions Trading Scheme (NZ ETS) limits and price control settings for units (unit settings), to meet legislative requirements and provide greater policy certainty to NZ ETS participants.
- To make these updates, I seek Cabinet approval to issue drafting instructions to amend the Climate Change (Auctions, Limits, and Price Controls for Units) Regulations 2020.

Relation to government priorities

- The Government declared a climate change emergency on 2 December 2020. The Cabinet Business Committee (CBC) agreed that climate change "demands a sufficiently ambitious, urgent, and coordinated response across government to meet the scale and complexity of the challenge" [CBC-20-MIN-0097 refers].
- 4 Enabling a just transition to a low-emissions, climate resilient future is a Government priority. CBC declared its intention to "put the climate at the centre of government decision-making" [CBC-20-MIN-0097 refers].
- The proposals in this paper relate to the Cooperation Agreement between the Labour and Green Parties. Achieving the purpose and goals of the 2019 amendments to the Climate Change Response Act 2002 (the Act) is an agreed area of cooperation.
- The proposals in this paper relate to action 5.1 of New Zealand's first emissions reduction plan (ERP), aligning the NZ ETS settings with emissions budgets.¹

Executive Summary

NZ ETS limits and price control settings for units (unit settings) are required to generally accord with New Zealand's emissions budgets and targets². Unit

¹ Action 5.1: Align NZ ETS settings with emissions budgets.

² Targets here means both the 2050 targets and the Nationally Determined Contribution

settings are required to be updated annually so they always cover the next five calendar years.

- Units refer to New Zealand Units (NZUs), which represent one metric tonne of carbon dioxide equivalent. The Government auctions NZUs four times a year, and transfers NZUs for industrial allocation and removal activities such as forestry. NZ ETS participants acquire NZUs, used to "pay" the Government for their carbon pollution obligations. NZUs can be traded in the secondary market.
- The Government sets a 'cap' on emissions by setting a limit on units. Over time, the cap will decrease in line with emissions budgets, reducing the supply of NZUs available for auction. There are no limits on the number of units that can be earned for forestry or other 'removal activities', so they do not restrict forestry investment choices.
- Price control settings moderate the prices at which NZUs are sold at auction by the Government. While price control settings do not directly determine the secondary market price, they aim to mitigate market prices that are unacceptably low or high.
- 11 The purposes of price controls are to:
 - 11.1 mitigate against prices that are unacceptable
 - 11.2 signal the outer limits of prices in the NZ ETS
 - 11.3 manage the risk of the NZU price at auction being inconsistent with what is required to meet emissions budgets and targets.
- The lower control is the auction reserve price, which sets the lowest price at which NZUs can be sold at auction. The upper control is the cost containment reserve (CCR). It provides additional supply of NZUs through auction when clearing prices meet a prescribed trigger price. The additional supply is intended to moderate the price.
- As required annually, the Climate Change Commission (the Commission) has provided advice on unit settings. I have considered this advice, and other matters, and I recommend following the Commission's advice in full. If updates to unit settings differ from the Commission's advice, then I am required to prepare a report of the reasons for the difference and present the report to the House of Representatives.
- The Commission's recommended price control settings differ significantly from current settings. They include much higher and wider auction price control settings for units, and a change to the structure of the CCR.
- By tracking NZU prices, it is clear that the CCR trigger price is being interpreted as a signal or expectation of NZU prices in the secondary market. This conflicts with the intent of the NZ ETS, which is to let the market discover the price required to achieve necessary emissions reductions in New Zealand. It appears that market participants have been bidding at prices above the

CCR to trigger the release of additional units at auction. Those units can then be 'banked' and auction participants are speculating that they can then be sold later at even higher prices.

16 I support the Commission's proposals to change the CCR as I consider that a CCR trigger price too close to the prevailing market price for NZUs will continue to act as a magnet to market prices.

Summary of proposals

| Setting | Recommended update | Key considerations |
|---|---|--|
| Limits for units | 68.5 million units available for auction ³ between 2023 and 2027. Compared to the status quo, this is an annual auction volume reduction of 2-3 million units. | The recommended limits are consistent with emissions budgets, and work to address the unacceptably high 'stockpile' of privately held units. |
| Price control settings – the auction reserve price | Increase the 2023 auction reserve price from \$32.10 to \$60, and then increase it annually | A price floor higher than the status quo encourages investments in gross emissions reductions. Higher price floors may incentivise greater afforestation and influence other investment decisions by firms and households (eg, encouraging the adoption of more energy-efficient transport), supporting emissions reductions over time. |
| Cost containment reserve (CCR) | Change the number of units in the CCR, and change the structure so that it has two trigger prices, each with a different volume of units. | Existing settings have encouraged speculative behaviour, driving up prices and exhausting the CCR. Increasing the trigger price aims to avoid this by reducing the tendency for NZUs to act as a magnet to market prices. |
| | 2023 (status quo): One CCR - Trigger price of \$78.40 - 7 million units available | Higher CCR trigger prices will allow the NZ ETS to function as intended, enabling the market to identify the NZU price required to achieve the emissions reductions New Zealand needs. Higher CCR trigger prices would |
| | CCR - Trigger price of \$78.40 - 7 million units | the NZ ETS to function as intended, enabling the marke identify the NZU price require achieve the emissions reduct New Zealand needs. |

³ This excludes the additional cost containment reserve volume of units designed to mitigate against NZU prices reaching unacceptably high levels.

| Setting | Recommended update | Key considerations |
|---------|--|--|
| | 2023: Two-tier CCR - 1st Trigger Price of \$171 - 2.9 million units available - 2nd Trigger price of \$214 - 5.1 million units available Then increase the CCR trigger prices annually. | associated impacts (eg, increased electricity and fossil fuel prices), before the price control intended to address too high prices would take effect. • I consider that unacceptable impacts from high emissions prices should be dealt with via complementary measures that provide targeted assistance to impacted population groups and sectors of the economy, rather than blunting the NZ ETS price incentive for high emissions firms to reduce their emissions. |
| | | |

Alternative price settings options

I recommend following the Commission's advice on price settings as the best evidence we have about what is appropriate to ensure a well-managed transition towards meeting our emissions targets. In providing its advice, the Commission was required to consider a range of factors including the proper functioning of the NZ ETS, meeting targets, and impacts on households and the economy.

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I have considered other

options for smaller changes to the reserve price and trigger price.

- The status quo, with minor adjustments for inflation only. This would be a very small increase in the reserve price in 2023 to \$33.06, rising annually to \$44.35 in 2027. The trigger price would be \$80.64 in 2023, rising annually to \$129.97 in 2027. A risk with this option is that NZUs are already trading above \$80.64 so it is likely the cost containment reserve would be triggered in 2023.
- The status quo for 2023 and 2024, with minor adjustments for inflation, and moving towards the Commission's recommendations from 2025 onwards. The trigger price would be \$80.64 in 2023, rising annually to \$169.67 in 2027. The same risk applies regarding the trigger price in 2023 being lower than the current market price of NZUs. However, this option would provide NZ ETS participants with some forward signal of policy intentions to allow higher prices in the future.

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- 18.3 A smaller increase in the price settings than recommended by the Commission, but greater than inflation. The reserve price would be \$45.00 in 2023, rising annually to reach \$56.01 in 2027. The trigger price would be \$120 in 2023, rising annually to \$149.64 in 2027. This reduces the risk of triggering the cost containment reserve in 2023, compared to an \$80.64 trigger price, but increases the risk of the new trigger price continuing to act as a "magnet" for market prices rather than a safety valve for unexpected market behaviour.
- On balance, I do not recommend these options. My view is that following the Commission's advice gives market participants the most accurate signal possible about forward prices and policy settings at this point. It also carries the greatest certainty of supporting the economy to achieve emissions reductions targets.

Summary of trade-offs and uncertainty when making these decisions

- Decisions on unit settings will always involve trade-offs and uncertainty. We are balancing allowing prices that might be required to reduce emissions and achieve targets against the potential for corresponding impacts on households and the economy. The likelihood of emissions prices increasing to unacceptable levels also needs to be considered.
- Fundamentally, there is a trade-off between allowing prices high enough to achieve sufficient emissions reductions and removals in all scenarios, and the point at which the resulting economic impacts are considered too severe.
- Additionally, the likelihood of prices reaching these 'too high' prices needs to be considered. The impact of increased CCR trigger prices on NZU prices is uncertain. I expect that higher trigger prices will reduce or remove the tendency for these trigger prices to function as a magnet to market prices.
- It is unclear whether prices as high as my proposed CCR trigger prices are needed to meet emissions targets; however, the trigger price is intended as an upper limit not a target. The Commission's recommendations are informed by the prices required to meet sector sub-targets for emissions, excluding carbon sequestration from forestry, in a range of scenarios where emissions reductions are easier or harder to achieve.
- The Government is taking action across all sectors of the economy to support households and businesses to reduce emissions, and therefore the NZ ETS costs they face directly or indirectly, in line with our legislated commitments. Direct support for firms to reduce emissions, such as co-investment in energy efficient industrial technology through the GIDI fund, incentives like the Clean Car Discount, and other regulatory tools such as the National Environmental Standard on industrial process heat to phase out coal boilers, complement economy-wide carbon pricing through the NZ ETS.

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Background

Purpose of NZ ETS unit settings

- NZ ETS unit settings must be in general accordance with New Zealand's emissions budgets, 2050 emissions targets, and nationally determined contribution under the Paris Agreement (NDC) collectively described as 'emissions targets'. A diagram showing where the NZ ETS unit settings fit in the context of emissions reductions activities is provided in Appendix two.
- Limit settings cap the supply of emissions units into the NZ ETS, other than NZUs transferred for removal activities (e.g. carbon sequestration by forests).
- Together, limits and price controls enable the Government to align the supply of units in the NZ ETS and manage price outcomes within New Zealand's domestic emissions budgets. NZ ETS participants use unit supply and price control decisions and signals from the Government to make investment decisions, thereby influencing the transition to a low-emissions economy. These settings are reviewed annually to ensure alignment with New Zealand's emissions budgets.
- NZU prices have impacts throughout the economy, including on electricity and fossil fuel prices. Price controls provide the government with a mechanism to help manage unacceptably low or high prices in the NZ ETS. NZU prices below the price floor are unlikely to be sufficiently high for New Zealand to meet its emissions targets. Alternatively, NZU prices above the CCR trigger are likely too high to justify the costs they impose on households and the economy.
- Since 2018, I have advised Cabinet that the NZ ETS needs to retain a price ceiling to manage the risk of short-term high prices impacting the economy. I have highlighted that if the market is operating as expected then it should be rare for the price ceiling to be reached if it is set appropriately⁴.
- Furthermore, unit settings can help businesses develop long-term expectations of their costs of participating in the NZ ETS to better inform their investment decisions and business planning.

NZ ETS unit settings must be reviewed annually

- Section 30GB(3)(b) of the Act requires that, at any given time, unit limits and price control settings are in place for the next five years.
- Regulations must be updated this year to meet this requirement and will cover 2023, 2024, 2025, 2026 and 2027. More specifically -
 - 32.1 new unit settings must be put in place for 2027
 - 32.2 updates to the unit settings for 2025 and 2026 must be considered

⁴ Paragraph 71, cabinet-paper-amendments-to-the-climate-change-response-act-2002-tranche-one-updated-may-2019-v2.pdf (environment.govt nz); paragraph 25 NZ-ETS-and-SGG-Levy-Regulation-Changes-2021.pdf (environment.govt.nz)

32.3 updates to the limit and price control settings for 2023 and 2024 may be considered as defined special circumstances are met⁵.

The Commission provided advice on unit settings in July 2022

- Price control settings were last updated in 2021, and reflect the recommendations provided in the Commission's 2021 advice *Ināia tonu nei*⁶.
- I set the first three emissions budgets in May 2022. As a result, I am required to consider the Commission's advice on unit settings on an annual basis.
- The Commission provided its advice to me on Friday 15 July 2022. This advice was subsequently tabled in the House and made public on Wednesday 27 July. The Commission's technical annexes underlying the advice were provided on 9 August.
- Public consultation on updates to unit settings in response to the Commission's advice began in September and concluded in early October 2022. Fifty-seven⁷ submissions were received. Submissions expressed a range of views, summarised in Appendix Three.

Updates to the Climate Change (Auctions, Limits, and Price Controls for Units)
Regulations 2020 must be made this year

- Decisions are required now to amend the Climate Change (Auctions, Limits, and Price Controls for Units) Regulations 2020 before the end of 2022 to meet the legal requirement that NZ ETS unit settings always cover each of the next five calendar years. Amended regulations must be published in the Gazette by 31 December 2022⁸.
- From next year, this annual update process will begin earlier.

Analysis

Limit settings for units

I propose limit settings that closely align with the Commission's recommendations

- To calculate the limit settings for units, the Government needs to:
 - 39.1 first calculate the required auction volumes,
 - 39.2 determine the volume of units required in the CCR, and

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⁵ Clause 7(2) of Schedule 1AA of the CCRA allows for recommending new settings for the first two calendar years when an emissions budget is first set: Climate Change Response Act 2002 No 40 (as at 03 November 2021), Public Act – New Zealand Legislation. Additionally, the sale of units from the cost containment reserve and the update to New Zealand's NDC also allow this.

⁶ Recommendation 11, Ināia tonu nei: a low-emissions future for Aotearoa.

⁷ Fifteen of these were nearly identical submissions modelled on the Coal Action Network submission, which have been treated as one submission for the purposes of this analysis.

⁸ In years other than the first year in which emissions budgets are set, this requirement is 30 September. The later date this year was introduced to the Act at the same time as changes to the delivery date deadline for emissions budgets and the emissions reduction plan.

- 39.3 combine the auction volumes and the volume of units required in the CCR with any approved overseas units (currently set to zero).
- The Commission's advice uses an established methodology to calculate auction volumes, with two proposed updates from prior years. These are:
 - 40.1 consideration of a technical discrepancy between emissions reported in the emissions trading scheme and in New Zealand's greenhouse gas inventory; referred to as the 'technical adjustment'
 - 40.2 re-consideration of the adjustment of auction volumes to account for updated estimates of the large number of privately held units (the 'stockpile'); referred to as the 'stockpile adjustment'.

I recommend a technical adjustment in response to a discrepancy identified by the Commission

- Sectors covered by the NZ ETS are required to report their emissions. While these are intended to align with emissions reported in New Zealand's Greenhouse Gas Inventory, the Commission has identified several discrepancies. It is unclear whether the discrepancy should result in an adjustment or not.
- There is value in addressing these discrepancies because New Zealand uses inventory data to report progress towards targets. Any accounting misalignment could mean too many, or too few, emission units are supplied each year. This discrepancy results in a recommendation to reduce auction volumes by 1.6 million units in 2023. Submitters' views are summarised in Appendix Three.
- The decision made here affects the number of NZUs available to be auctioned and will likely influence NZU price due to the impact on NZU supply. The Commission recommends reducing auction volumes each year by the full amount of the discrepancy until it is resolved, due to the potential impact it has on auction volume and units supplied to the market⁹.
- 44 Alternative options are to make:
 - 44.1 No technical adjustment until the reasons for the discrepancies are known. This is the least costly and lowest impact option.
 - Another option, which is not preferred, is a mid-point technical adjustment, halfway between a nil adjustment and an adjustment for the full amount of the discrepancy. This addresses risks in either direction.

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⁹ The size of the discrepancy is approximately 1.6 megatonnes. A reduction of auction volume by 1.6 million units in 2023 is material in the context of status quo auction volume for 2023, being 18.6 million units.

The Commission also advised on the stockpile adjustment as part of making limit settings for units

- A large quantity of units has accumulated in private accounts. This 'stockpile' of units provides essential liquidity in the market, but it could also dampen the NZU price if it becomes too large.
- 46 Units can move into the stockpile as they are:
 - 46.1 sold by auction;
 - 46.2 transferred for industrial allocation; and
 - 46.3 transferred for removal activities (including forestry).
- Units move out of the stockpile when they are surrendered to the Crown by NZ ETS participants to meet their NZ ETS obligations.
- The stockpile could cause significant challenges in meeting emissions budgets. The stockpile on 1 June 2022 was 144 million units, approximately four times as many units as were surrendered for 2021 emissions.
- The Commission has estimated the 'surplus' component of the stockpile. This surplus represents the portion that is likely to be actively traded in the market, rather than retained for future surrender obligations.

I recommend following the Commission's advice on drawing down the stockpile

- To help draw down the stockpile, I recommend following the Commission's advice and withholding an amount of units from auction annually through to 2030. The amount withheld each year should be proportional to the number of units available to be supplied into the NZ ETS. This is supported by a number of individual and NGO submitters. Some submitters challenged the Commission's assumptions and raised concerns around liquidity and regulatory certainty. More detail on submitter's views can be found in Appendix Three.
- This results in lower auction volumes than the status quo. This stockpile reduction amount would instead be made available via the CCR if auction clearing prices exceed CCR trigger prices.
- An alternative option is to reduce the stockpile over ten years rather than by 2030. This option would use the stockpile reduction amount and methodology recommended by the Commission. This would have flow-on impacts on the volume of units in the CCR, as the CCR volume is recommended as being set as equal to the stockpile adjustment amount.

Proposed settings including adjustments

I propose following the Commission's advice to make the technical adjustment and draw down the stockpile.

- My recommended auction volumes are presented in the second row of the table below. The overall result is a reduction in auction volumes compared to current settings. These auction volumes are used to calculate the recommended unit limits.
- The third to fifth rows of the table below show the impact of some of the combinations of the alternative choices for technical adjustment and stockpile adjustment steps on auction volumes.

Table 1: Status quo, recommended, and Commission's advised auction volumes

| Auction volume source scenario | Auc | tion volume | (millions of | units) for e | ach year |
|---|------|-------------|--------------|--------------|----------|
| | 2023 | 2024 | 2025 | 2026 | 2027 |
| Status quo | 18.6 | 18.0 | 16.5 | 15.7 | Not set |
| Recommended (Commission's advice) | 16.3 | 15.6 | 14.0 | 12.1 | 10.4 |
| Nil technical adjustment, Commission's stockpile reduction approach | 17.9 | 17.1 | 15.3 | 13.5 | 11.7 |
| Mid-technical adjustment, Commission's recommended stockpile reduction approach | 17.1 | 16.3 | 14.6 | 12.9 | 11.1 |
| Mid-technical adjustment, 10-year stockpile reduction approach | 18.0 | 17.2 | 15.5 | 13.6 | 11.7 |

- The limits that must be prescribed in regulations are:
 - a **limit on the total number of NZUs available by auction**. This is comprised of annual auction volume plus the volume available within the CCR:
 - 56.2 a limit on approved overseas units; and
 - 56.3 an **overall limit on units**. This is often referred to as the NZ ETS cap, which consists of units available by auction and by other means, and approved overseas units. This excludes consideration of units transferred for removal activities.
- The proposed limits for units can be calculated by combining the auction volumes proposed in table 1, projections on industrial allocation and the CCR volume (being aligned directly with the stockpile adjustment volumes). I therefore recommend setting limits for units as described in Table 2 below.
- The values to be prescribed in regulations as described in Table 2 below will change if one of the alternative options detailed in Table 1 above is chosen.

Table 2: Recommended limit settings to be prescribed in regulations

| Limit | | Millions of units for each year | | | | | | |
|--|------|---------------------------------|------|------|------|--|--|--|
| Lillie | 2023 | 2024 | 2025 | 2026 | 2027 | | | |
| New Zealand units available by auction ¹⁰ | 24.4 | 23.3 | 21.1 | 18.7 | 16.3 | | | |
| Approved overseas units used | 0 | 0 | 0 | 0 | 0 | | | |

| | Millions of units for each year | | | | | |
|--------------------------------------|---------------------------------|------|------|------|------|--|
| Overall limit on units ¹¹ | 30.8 | 29.6 | 27.4 | 24.9 | 22.4 | |

The updated settings will result in a gap between the supply of units and the units required by NZ ETS participants to meet their surrender obligations. This gap will need to be met by participants obtaining units from the existing stockpile, or from new units transferred for forestry and other removal activities. When these additional units transferred for removal units are considered, this gap between the supply of units and units required to meet surrender obligations reduces significantly.

Price control settings

- NZ ETS price control settings for units apply at NZ ETS auctions. They regulate the supply of NZUs at the auction clearing price. This additional or decreased supply is intended to affect NZU prices in the secondary market. The purposes of price controls are to:
 - 60.1 mitigate against unacceptable prices;
 - 60.2 signal the outer limits of expected prices in the NZ ETS; and
 - 60.3 manage the risk of the NZU price at auction being inconsistent with what is required to meet emissions budgets and targets.

The auction reserve price is designed to address unacceptably low NZU prices

- The auction reserve price is the minimum price at which the government can sell NZUs by auction.
- The key purpose of the auction reserve price is to mitigate prices falling to an unacceptable level. This means NZU prices that do not incentivise required emissions reductions. It does this by stopping the sale of units at auction below the auction reserve price.

The Commission recommends increasing the auction reserve price

- The Commission advised that the auction reserve price should be increased to \$60.00 for 2023, rising to \$75.00 by 2027.
- 64 Submitter's views are summarised in Appendix Three.

Trecommend adopting the Commission's recommended auction reserve prices

I propose adopting the Commission's recommended auction reserve price settings, presented alongside the status quo in the table below.

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¹⁰ This is the auction volume above + the cost containment reserve volume.

¹¹ This includes the auction volume above + the cost containment reserve volume + projected industrial allocation.

Table 3: Status quo and recommended auction reserve prices

| 0.1: | Price floo | r (NZD) | 18 | 4.8 | |
|-------------|------------|---------|-------|-------|---------|
| Option | 2023 | 2024 | 2025 | 2026 | 2027 |
| Status quo | 32.10 | 34.35 | 36.75 | 39.32 | Not set |
| Recommended | 60.00 | 64.00 | 68.00 | 71.00 | 75.00 |

- 66 Alternative options include¹²:
 - 66.1 extending status quo auction inflation-adjusted reserve prices. This would limit regulatory uncertainty,
 - 66.2 retaining status quo auction inflation-adjusted reserve prices for 2023 and 2024, and then moving towards the Commission's recommended settings from that point
 - 66.3 increasing the auction reserve price to \$45 in 2023, and then increasing from that point onwards using the Commission's recommended trajectory of an annual increase of three per cent plus inflation.

Analysis and rationale for recommended auction reserve prices

- The current and recommended auction reserve prices are well below prevailing domestic prices. This means that direct price impacts on households and the economy are not significantly affected by any of the proposed options.
- A price floor higher than the status quo is likely to increase investment in gross emissions reductions. All options that increase the auction reserve prices are improvements. The Commission highlights that \$50 is the approximate break-even threshold for boiler conversions from coal to biomass. Higher price floors may further incentivise afforestation and influence other investment decisions by firms and households (for example encouraging more energy-efficient transport and stationary energy purchases), supporting emissions reductions over time.

Cost containment reserve (CCR)

The cost containment reserve provides an upper price control

The CCR provides a reserve volume of NZUs the Government can supply to the market through auctions. It is activated when the auction clearing price reaches the CCR trigger price.

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¹² Tables detailing these alternative options are included in the recommendations in this paper.

- The primary purpose of the CCR is to contain high NZU prices that could cause unacceptable economic and distributional impacts for New Zealand. It is, however, important that the CCR trigger price is set at a level that:
 - 70.1 allows effective price discovery of the prices needed to achieve required emissions reductions;
 - 70.2 allows prices to rise to levels required to meet emissions targets;
 - 70.3 does not simply function as a magnet for secondary market prices and speculation; and
 - 70.4 aligns with the intent that the CCR is rarely, if ever, triggered.

The Commission recommends a two-tiered structure for the cost containment reserve

- 71 The CCR currently has a single trigger price. When this is met the entire reserve volume of units becomes available for sale during the current auction.
- The Commission has proposed a two-tiered structure for the CCR, which would release reserve NZUs in two tranches as each trigger price is hit in turn. This is presented in Table 5 below.
- I expect that a two-tier system will make it less likely that market participants will treat the CCR trigger price as the expected NZU price. It will also support a more managed release of NZUs into the market in the unlikely event that the CCR is triggered, supporting efforts to draw down the stockpile of privately held units.
- An alternative option is to retain the current single-tier structure by having a single CCR trigger price. While a single trigger price is more effective at dampening prices, it retains the likelihood of the CCR trigger price acting as a magnet to secondary market prices.

The Commission recommends changes to the cost containment reserve volume

- The CCR volume is the number of additional NZUs that can be released at auction annually if auctions clear above a cost containment reserve 'trigger' price. To date it has been set as equal to the amount by which auction volumes are reduced to address the stockpile of privately held units, plus an additional amount.
- The Commission recommends the CCR volume be changed to reflect only the stockpile adjustment volume because this removes the potential that units outside of the emissions budget are sold.

Cost containment reserve trigger prices

Context to the recommended settings – Commission's approach

- The Commission has formed a gross emissions target for emitting sectors covered by the NZ ETS. The target is based on the sector sub-targets described in the emissions reduction plan (ERP). The Commission's advice on price control settings draws on modelling of emissions prices required to meet these 'gross emissions reduction targets' for 2022-2035 under different scenarios. These scenarios reflect circumstances that make the achievement of targets easier or more difficult.
- As the Commission notes, its "recommended settings are predicated on delivering reductions in gross emissions in line with the Commission's Ināia Tonu Nei advice and the emissions reduction plan's sector sub-targets¹⁴".
- Some submitters highlighted that the ERP states that the ETS should drive a 'balance of gross and net' emissions reductions. Submitters argued that little consideration was given by the Commission to ongoing emissions reduction efforts by emitting firms. They also argued there are barriers to further emissions reductions, including lack of access to technology, low availability of skilled labour, and supply chain issues.
- Some participants also suggested that the Commission's proposed price control settings did not support a 'just transition' to a low emissions economy and increased the risk of emissions leakage or business closure.
- Last year, Cabinet agreed to prioritise gross emissions reductions in the ERP, alongside maintaining support for net emissions reductions, in line with the Commission's analysis and advice on emissions budgets [CAB-21-MIN-0547.02 refers]. I agree with the approach taken by the Commission in basing its recommendations on what is required to achieve gross emissions reductions.

Context to the recommended settings – CCR triggering to date

- Triggering of the cost containment reserve mechanism should happen only rarely, if ever. However, since NZ ETS auctions began in March 2021 the CCR has been triggered several times and the full CCR volume has been sold for both 2021 and 2022.
- It appears that existing price control settings have encouraged market participants to bid to prices in excess of the CCR in order to trigger the release of additional units for sale. This is rational behaviour: if today's upper price (the CCR) is lower than a future price floor (the auction reserve), it makes sense to accumulate as many units as possible today in anticipation of higher prices in the future.

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¹³ The Commission has created gross emissions reductions targets by summing the sector sub-targets for NZ ETS covered sectors excluding forestry. The Commission's modelling has identified prices necessary for these to be met in a range of 'easier to achieve' or 'harder to achieve' emissions reductions scenarios.

¹⁴ Page 26, NZ ETS settings for 2023-2027 (amazonaws.com)

Release of this additional volume of units also results in more limited drawdown of the 'stockpile' of privately held units. This stockpile could cause challenges in meeting emissions budgets because it allows emissions outside the NZ ETS 'cap'. Higher trigger prices should make the sale of units from the cost containment reserve less likely.

Setting the CCR trigger price involves trade-offs

- NZU prices have impacts throughout the economy. This includes impacts on electricity and fossil fuel prices, and on companies carrying out activities that are emissions-intensive and trade exposed¹⁵.
- When arriving at my recommendation for the CCR trigger prices, I have balanced reducing emissions against the impacts of higher emissions prices on households and the economy that could occur if NZU prices rise to these levels.
- In my view, the Commission's recommendation achieves this balance by being set high enough that the CCR trigger price should cease to be treated as a prediction of NZU prices.
- The NZ ETS is currently mainly achieving emissions reductions through forestry, rather than reductions in gross emissions. Additional afforestation in response to NZU price will not affect achievement of emissions budget one, due to the delay before meaningful emissions removals occur as trees grow. The impact becomes more significant in later emissions budgets periods.

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Cost containment reserve trigger price – stakeholder feedback

Just over half of the stakeholder submissions support status quo settings. The remainder support the Commission's advice on trigger price settings. Those supportive the Commission's advice suggested that it would assist the proper functioning of the CCR. Those in favour of retaining status quo settings raised concerns about regulatory uncertainty and possible impacts on households and the economy. This is described in more detail in Appendix Three.

Cost containment reserve recommendations

- The CCR trigger prices represent the upper bound of the NZ ETS price corridor. Last year, the Government set the price trigger at \$78.40 for 2023, rising to \$110.15 in 2026, based on the recommendations of the Commission.
- The Commission has recommended increasing the CCR trigger prices. It recommended a two-tier CCR, with an initial trigger price of \$171.00 in 2023,

¹⁵ These are activities that are eligible to receive industrial allocation to address the risk of closure or reduced production due to emissions pricing.

- rising to \$214.00 by 2027, and a second trigger price of \$214.00 in 2023 that would increase to \$268.00 in 2027.
- 93 Recommendations on price control settings draw heavily on modelled emission responses at various NZU prices. These are subject to a high level of uncertainty.
- I have heard concerns from industry that the Commission's recommended settings would be too high and cause uncertainty, and that they could result in NZU prices which have significant impacts on households and the economy. However, noting that the settings are not the price, I consider this large change is needed now to align with emission budgets and to avoid more incremental regulatory change in the future.
- Table 5 below shows the current CCR price trigger settings, and my recommendation to implement the Commission's advice for both the price trigger values and CCR volumes. All options to increase the CCR trigger prices are improvements over the status quo.

Table 5: Status quo and recommended cost containment reserve trigger prices

| | • | | | | |
|--------------------------|----------|-------------------|----------|----------|----------|
| Cost containment | 2023 | 2024 | 2025 | 2026 | 2027 |
| reserve | | | | | |
| Status Quo | | | | | |
| Status quo trigger price | \$78.40 | \$87.81 | \$98.34 | \$110.15 | Not set |
| Status quo volume | 7.0 | 7.0 | 6.8 | 6.7 | Not set |
| | | | | | |
| Recommended | | | | | |
| | | Tier 1 | | | |
| Trigger price | \$171.00 | \$ 1 82.00 | \$193.00 | \$203.00 | \$214.00 |
| Reserve volume, million | 2.9 | 2.8 | 2.6 | 2.3 | 2.1 |
| NZUs | | | | | |
| | | Tier 2 | | | |
| Trigger price | \$214 | \$228 | \$241 | \$254 | \$268 |
| Reserve volume, million | 5.1 | 4.9 | 4.6 | 4.2 | 3.8 |
| NZUs | | | | | |
| Total reserve volume, | 8.0 | 7.7 | 7.2 | 6.5 | 5.9 |
| million NZUs | | | | | |

- Alternative single-tier options include¹⁶:
 - 96.1 extending status quo settings adjusted for inflation only
 - 96.2 status quo settings adjusted for inflation in 2023 and 2024, then moving towards the Commission's recommended settings in subsequent years
 - 96.3 increasing the CCR trigger price to \$120 in 2023, then increasing from that point onwards using the Commission's recommended trajectory of an annual increase of three per cent plus inflation.

¹⁶ Tables detailing these alternative options are included in the recommendations in this paper.

Another alternative is to disable the CCR by setting the reserve volume of units at zero. This option was considered, and not preferred, by the Commission in its advice. The Commission observed that this would require being "convinced that the purpose of the CCR is no longer relevant or necessary. In other words, that there is no risk of extreme prices for NZ ETS participants that needs to be mitigated."

Consideration of impacts of proposed price control settings

- As discussed above, NZ ETS prices can have impacts throughout the economy, including on electricity and fossil fuel prices. I am required to consider these impacts on households and the economy when making recommendations on updates to price control settings, as is the Commission.
- The Commission has provided detail on the likely impacts on households and the economy at different emissions prices. The Commission has not adjusted its recommendations on price control settings in response to its consideration of these impacts.
- The Commission stated that: "the overall conclusion from this analysis is that the potential impacts (of emissions prices on households and the economy) are moderate but not insignificant. Having considered these impacts, as well as the nature of the NZ ETS as a market mechanism, our view is that these impacts should not be a primary determinant for the NZ ETS price control settings¹⁷".
- Having considered these impacts, I agree with the Commission's view that they should not be a primary determinant for the NZ ETS price control settings. It is up to the government to implement complementary measures to mitigate the NZ ETS costs on low income households, vulnerable communities, and sectors of the economy.
- Our Government is already taking action to enable more widespread and affordable, fuel-efficient and low emissions transport and energy options for households and businesses. This includes half price public transport, the Clean Car Discount and GIDI investments.
- 103 It is essential that the ERP commitments to an equitable transition are enacted. I urge rapid development and implementation of further complementary policies. These include development of an equitable transition strategy¹⁸ and other commitments in the emissions reduction plan.
- Work is underway on the equitable transition strategy. Cabinet has recently agreed the approach to develop this strategy with public engagement to occur from late 2022 through until shortly before the release of the final strategy which is due prior to June 2024 [SWC-22-MIN-0181].

¹⁷ Page 51, NZ ETS settings for 2023-2027 (amazonaws.com)

¹⁸ Action 3.2.1 of the emissions reduction plan Aotearoa New Zealand's first emissions reduction plan (environment.govt nz)

- The Draft Terms of Reference for the strategy recognises that meaningful engagement will take time. It also highlights that some issues within the scope of the Equitable Transitions Strategy may justify earlier action. Where there is a strong case for early intervention, the Strategy will seek to develop actions for implementation in parallel with the development of the overall strategy.
- New actions to address distributional impacts, including any impacts that are driven by higher ETS prices, are likely to require additional resourcing. This will likely involve trade-offs among the different objectives that Ministers have for CERF revenue. For example, additional actions to address distributional impacts may result in fewer options to fund complementary measures to drive emissions abatement or to support adaptation objectives.
- 107 Actions to address distributional impacts will cut across multiple portfolios and I urge all agencies to support the development of appropriate measures to manage the impacts of a higher emissions price and to support an equitable transition.
- Development of an approach for single-firm industries with emissions that are hard to reduce or remove¹⁹ is also essential, along with the other actions within the ERP that are designed to mitigate the costs of the transition.
- It is essential to remember that the CCR trigger price should not determine the secondary market price for NZUs. Although there has been a history of the upper price control being seen as an expectation of NZU prices, this is not how the CCR was designed.
- Setting the CCR trigger price at the levels recommended by the Commission should act to remove this 'magnet' effect. In the impacts section below I describe impacts at the current NZU price (\$80), at the lower recommended CCR trigger price (\$171), and at a price point in between (\$120) for context.

Impacts on emissions

- The Commission's advice is based on enabling prices which let the ETS do the work to achieve gross emissions reductions under challenging scenarios. If other emissions reduction policies are implemented and are effective, higher NZU prices will not be required and are less likely to occur. Effectively, the impacts of changes to the trigger price are at least partially controlled by the effective roll-out of the ERP actions.
- 112 In the Commission's model, emissions prices have no impact on:
 - 112.1 energy and transport demand;
 - 112.2 energy efficiency measures;
 - 112.3 mitigation in the waste sector;
 - 112.4 mitigation in the industrial processes and product use sector;

¹⁹ Action 11.4.2. of the emissions reduction plan Aotearoa New Zealand's first emissions reduction plan (environment.govt nz)

- 112.5 update of liquid biofuels; and
- 112.6 assumptions affecting how fast EV uptake and household fuel switching can occur.
- 113 These model assumptions mean that emissions reductions are likely underestimated at higher prices.
- The Commission has cited recent data that indicate significantly more exotic afforestation than previously forecast. Updated afforestation projections for 2022 alone indicate an additional 11 megatonnes²⁰ of additional carbon dioxide removals will occur between now and 2035.
- 115 Recent analysis in support of the reduction of the fuel excise tax and road user charges suggested a material increase in transport emissions from a 25c reduction in petrol prices. This is approximately the amount that petrol prices would rise if the NZU price moved from current prices to \$171, suggesting that a similar reduction in transport energy emissions would occur if the NZU price moved to this level.
- The Ministry has provided some estimates on the prices at which various ways of reducing emissions become cost-effective. However, the "analysis does not predict the market response to an emissions price. The estimated marginal abatement cost should therefore not be conflated with the required emissions price in the New Zealand Emissions Trading Scheme (NZ ETS)"²¹.

Impacts on energy prices

- The price of NZUs has a direct impact on the costs of electricity, petrol, and other energy sources. The Commission leveraged work undertaken by the Treasury to present impacts at various price points. Any increase in the prices of goods has a corresponding cost-of-living and inflationary impact.
- Impacts of different NZU prices on electricity and fossil fuel costs are displayed in the table below. The high impact electricity values assume that the average of the modelled wholesale price impact over the period of 2023-2027 is passed through to consumers. The low impact values assume that consumer price increases are based on average wholesale price impacts out to 2035.

Table 6: Impacts of NZU price on electricity and fossil fuels

| electricity | Sector | 2021 price (c/kWh) | \$50 | \$75 | \$100 | \$150 | \$200 | \$250 |
|-------------|-------------|--------------------------|------|------|-------|-------|-------|-------|
| High impact | Residential | 30.6 | 1.9 | 2.9 | 3.8 | 5.7 | 7.6 | 9.5 |

²⁰ Calculation is based on the post-1989 planted forest yield table in the New Zealand Greenhouse Gas Inventory (1990-2020) and excludes any emissions associated with soils and emissions from the previous land use (such as scrub clearance to plant forests). https://environment.govt.nz/assets/publications/GhG-Inventory/New-Zealand-Greenhouse-Gas-Inventory-1990-2020-Annexes.pdf.

²¹ Page 8, Marginal abatement cost curves analysis for New Zealand: Potential greenhouse gas mitigation options and their costs | Ministry for the Environment

| electricity | Sector | 2021 price (c/kWh) | \$50 | \$75 | \$100 | \$150 | \$200 | \$250 |
|-------------|-------------|--------------------------|------------|------|-------|------------|-------|------------|
| | Commercia | 10 5 | 1 7 | 2.5 | 2.2 | г 0 | 6.6 | 0.2 |
| | Industrial | 18.5 17.1 | 1.7 1.6 | 2.5 | 3.3 | 5.0 4.7 | 6.6 | 8.3 7.8 |
| | Residential | 30.6 | 1.1 | 1.7 | 2.2 | 3.3 | 4.4 | 5.5 |
| Low impact | Commercia | | | | | | | |
| | I | 18.5 | 1.0 | 1.5 | 1.9 | 2.9 | 3.8 | 4.8 |
| | Industrial | 17.1 | 0.9 | 1.4 | 1.8 | 2.7 | 3.6 | 4.5 |

| fossil fuels | | | | Emissions price | | | | | |
|-----------------------|-------------|--------------------------|------|-----------------|-------|-------|-------|-------|--|
| | Sector | 2021 price (c/kWh) | \$50 | \$75 | \$100 | \$150 | \$200 | \$250 | |
| F | Residential | 14.7 | 1.2 | 1.8 | 2.3 | 3.5 | 4.6 | 5.8 | |
| Fossil gas (c/kWh) | Commercial | 6.6 | 1.0 | 1.5 | 2.0 | 3.0 | 4.0 | 5.0 | |
| (C/KVVII) | Industrial | 3.2 | 1.0 | 1.5 | 2.0 | 3.0 | 4.0 | 5.0 | |
| Diesel (c/l) | | 150.6 | 15.4 | 23.1 | 30.7 | 46.1 | 61.5 | 76.8 | |
| Petrol (c/l) | | 224.7 | 13.4 | 20.2 | 26.9 | 40.3 | 53.8 | 67.2 | |
| Coal (c/GJ) | | 10.0 | 4.5 | 6.8 | 9.0 | 13.6 | 18.1 | 22.6 | |

- At current NZU prices of around \$80, emissions pricing accounts for around 21 cents of the cost of every litre of petrol sold. The price impact is proportional to NZU price. At NZU prices of \$120 this increases to around 32 cents per litre of petrol, and at NZU prices of \$171 this would increase to be around 46 cents.
- Similarly, other price impacts increase by 50 per cent with an increase in NZU price from \$80 to \$120, and would a little more than double in the unlikely scenario that the NZU price increases to \$171. Even at these high price points, the emissions pricing contribution remains a small portion of the costs listed above.

Inflationary impacts

- When considering the inflationary impacts of these updates, I expect the impact of emissions pricing on inflation to be minor relative to other inflationary pressures currently being faced by our economy. It is not plausible to quantify the inflationary impact caused by any increase in NZU prices. However, it is fair to say that the higher the NZU price, the greater the inflationary impact.
- 122 NZ ETS prices need to be adjusted for inflation to ensure that the price signal for emissions reductions is not eroded over time, and all recommended options include updates that take into account higher than anticipated rates of inflation. My recommended option adjusts for inflation over time.

Land-use change impacts

- The incentive to convert land to permanent forestry (meaning forests that are grown for carbon credits only, with no intention of harvesting), and to transition existing rotational forests to permanent forestry increases as NZU prices increase.
- There is a strong land use, land use change, and forestry reaction from rising NZU prices. In the last two years, we have seen wide-scale exotic afforestation in response to higher carbon prices and the expectation of higher prices in the future. This is likely to continue in the near-term while NZ ETS returns for forestry outperform other land uses. Modelling indicates afforestation reaching around 100,000 ha per year at NZU prices from \$100, with relatively small increases as NZU prices increase further.²²
- Work is underway to help manage afforestation impacts. This includes modifying the permanent post-1989 forestry category, proposed changes to the National Environmental Standards for forestry, changes to the Overseas Investment Act,

Impacts on emissions intensive and trade exposed industries

- If NZU prices reach high enough levels, there is a possibility that some industries in New Zealand will close and the required goods will need to be imported instead. The table below shows the NZU price at which this is expected to occur for some industries. The price of NZUs also affects the financial viability of emissions intensive and trade exposed (EITE) industries. At some price point the industrial allocation settings designed to help address this become insufficient to prevent emissions leakage if industry does not achieve emission reductions.
- This is displayed for three activities in the table below, based on data collected several years ago.²³

Table 7: NZU price impacts on three activities eligible for industrial allocation²⁴

| Criterion ²⁵ | | | | | | |
|--|-----------------|-----------------|-----------------|--------------|-----------------|--------------|
| ~0 | Net ETS cost | NZU price | Net ETS cost | NZU price | Net ETS cost | NZU price |
| EBIT falls to zero: activity expected to wind down | \$30-\$80 | \$150- \$450 | \$35 | \$175 | \$20 | \$100 |
| EBITDA falls to zero: activity | \$130 | \$650 | \$50 | \$250 | \$30 | \$150 |

²² Section 3.3. Afforestation Economic Modelling (mpi.govt nz)

²³ For other industries, potentially including production of glass containers, urea, and ethanol, industrial allocation is likely to be insufficient to prevent becoming unprofitable at NZU prices from around \$200.

²⁴ This table displays the net ETS cost after industrial allocation, and the corresponding NZU price in 2030 at which some activities eligible for industrial allocation wind down activity or cease activity

²⁵ Note: EBIT = earnings before interest and tax; EBITDA = earnings before interest, tax, depreciation and amortisation

| Criterion | | | | |
|-------------------|------|--|-----|--|
| expected to cease | 1921 | | 8.0 | |

Direct support for firms to reduce emissions, such as green investment finance and co-investment in energy efficient industrial technology through the GIDI fund, complement economy-wide carbon pricing through the NZ ETS. I urge continuation of the work on supporting decarbonisation of EITE activities, and the ERP action to develop an approach for single-firm industries with emissions that are hard to reduce or remove²⁶. There is also other work underway on alternative mechanisms, such as carbon border adjustment mechanisms, to address the risk of emissions leakage.

Regulatory certainty

Significant changes were made to price control settings last year. I consider it essential to make further significant changes now so that settings become durable and less likely to change in future. I expect this to provide greater regulatory certainty in future.

Impacts on other work programmes

- There are several work programmes underway that have some relationship with emission unit prices, and therefore decisions on unit settings. These include:
 - 130.1 pricing of agricultural emissions/He Waka Eke Noa;
 - 130.2 the redesign of the permanent forestry category in the NZ ETS;
 - 130.3
 - the portfolio of overseas mitigation required to meet New Zealand's NDC;
 - 130.5 implementation of industrial allocation reform decisions; and
 - implementation and funding of ERP actions and other climate initiatives, including the Equitable Transitions Strategy.
- The interplay with NZ ETS unit settings needs to be considered as these work programmes progress.

²⁶ Action 11.4.2 of the emissions reduction plan: Aotearoa New Zealand's first emissions reduction plan (environment.govt.nz)



Implementation

135 Updated settings will come into effect for the first government auction of NZUs in 2023. These settings will be reviewed on an annual basis, and Cabinet approval for further updates to settings will be sought again in 2023.

Financial Implications

- Amendments to unit and price settings within the NZ ETS will have fiscal implications since the NZ ETS is a source of cash proceeds to the Crown. Given the current relationship between NZ ETS forecast proceeds and the size of the Climate Emergency Response Fund (CERF), unit and price setting changes are also therefore anticipated to have implications for the CERF.
- A reduction of auction volume will affect auction revenue. I propose reducing auction volume by 2.3 million units in 2023. At current market prices of approximately \$80, this equates to a \$184 million reduction in auction revenue.
- However, it is not immediately clear what the overall impact would be on auction proceeds, as a reduced auction volume may result in increased auction clearing prices. As context, the current climate emergency response fund (CERF) level is based on forecasts of approximately \$4.5 billion to 2025.
- If NZU prices rise in response to changes to NZ ETS unit settings, this will likely drive indirect revenue impacts through broader economic impact channels. As an example, increased fuel prices may cause people to use less fuel or travel fewer vehicle kilometres and this would have implications for fuel excise and road user charge revenues.
- 140 Additionally, any distributional impacts such as cost of living pressures would have likely financial implications from additional policies the Government may institute to mitigate these impacts.

[SENSITIVE]

141 Changes to price control settings should not have other financial implications, as the intent is that the CCR is rarely, if ever, triggered.

Legislative Implications

- Regulatory amendments will be required to implement the proposals. Drafting approval for these would be sought at the time of policy decisions in October 2022. The Climate Change (Auctions, Limits, and Price Controls for Units) Regulations 2022 will need to be amended to update the prescribed unit settings.
- The amendment regulations need to be published in the New Zealand Gazette by the end of 2022. This is to meet the requirement that, at all times, units settings are prescribed for each of the next five calendar years.

Impact Analysis

Regulatory Impact Statement

- Regulatory impact analysis requirements apply to updates to NZ ETS unit settings, and a Regulatory Impact Statement (RIS) has been completed and is attached in Appendix one.
- The Regulatory Impact Analysis (RIA) is assessed by the Ministry for the Environment's RIA Panel as 'partially meets'. The RIA is well structured, presents a range of options for assessment, shows evidence of appropriate engagement and contains a high-level of detail and good analysis in many areas. The RIA was not considered to fully meet the RIA requirements because the purpose of the package of changes should be more clearly and succinctly presented; some of the analysis is unnecessarily complex and focussed on technical issues rather than the purpose of the package; some critical information was missing for some options; and there were inconsistencies in some of the analysis.

Climate Implications of Policy Assessment

The Climate Implications of Policy Assessment (CIPA) team has been consulted and confirms that the CIPA requirements do not apply to this proposal as the threshold for significance is not met. The intent of updates to NZ ETS unit settings is not additional or reduced emissions reductions but to continue to allow the ETS to function as intended, and for the existing price incentive to reduce emissions to function without obstacles. No specific emissions reductions are being targeted by these updates, nor expected as a result.

Population Implications

147 These settings are not intended to drive changes in NZU prices. Impacts could occur if NZU prices do increase in response to changes in these settings, and are described generally in the impacts section above.

148 Impacts from increased prices would disproportionately impact Māori, lower income households, and regional economies.

Treaty of Waitangi Implications

- Māori have a significant stake in climate change action, and a significant interest in the NZ ETS. Māori have a large economy and asset base sitting largely in the primary industries, as well as Treaty-based rights and interests in natural resource and management.
- 150 I am satisfied under section 3A of the Act, that iwi and Māori have had the opportunity to provide feedback on proposed changes.
- There are no direct Te Tiriti o Waitangi implications from these changes. Although these changes do not impact emissions costs directly as they do not fundamentally change NZU supply and demand, they do influence market expectations.
- Higher emissions costs disproportionately impact lower socio-economic groups, where Māori are over-represented. The Government is addressing these concerns through supporting policies to accelerate New Zealand's transition to a low emissions economy.

Human Rights

The proposals in this paper are consistent with the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993.

Consultation

- The Ministry for the Environment published a discussion document for public consultation on updates to NZ ETS unit settings in September and early-October this year.
- 155 Fifty seven submissions were received²⁷. Submitters' views have been included throughout this paper and are summarised in Appendix 3.
- The Treasury, Ministry of Foreign Affairs and Trade, Ministry for Primary Industries, Ministry for Business, Innovation and Employment, Environmental Protection Authority, the New Zealand Customs Service, and the Ministry of Transport were consulted on this paper. The Department of Prime Minister and Cabinet, Ministry of Social Development, and Te Puni Kōkiri were informed.
- The Green Party was consulted on the proposals in this paper. The Green Party agrees with the Minister of Climate Change's preferred recommendations, especially those that follow advice from the Climate Change Commission. Effective carbon pricing and volume limits in the ETS are essential to achieve emissions reductions, and complementary policies

-

[SENSITIVE]

²⁷ Fifteen submissions were identical form submissions from Coal Action Network. For the purposes of the analysis they have been counted as one.

have a crucial role to mitigate distributional impacts and ensure low emissions options are available to households and businesses.

Communications

- Announcements about the NZ ETS need to be managed carefully to avoid market risks. Information needs to be disseminated in a way that does not advantage some market participants over others or compromise NZ ETS investments either in NZUs or decarbonisation actions.
- 159 I will announce decisions via press release, an email sent to ETS stakeholders, and publication on the Ministry for the Environment's website.

Proactive Release

I propose to proactively release this paper on the Ministry's website, subject to redactions as appropriate under the Official Information Act 1982. I intend to do this at the same time as decisions are announced.

Recommendations

The Minister of Climate Change recommends that the Committee:

- note the need to update NZ ETS limits and price control settings for units (unit settings) and extend them to 2027
- 2 note that regulations extending these settings need to be made and published in the NZ Gazette before 31 December 2022

Legal requirements

- note that the Climate Change Response Act 2002 (the Act) requires that I consider matters described in section 30GC when making recommendations on updates to price control settings
- 4 **note** that if I recommend prescribing limits or price control settings that differ from recommendations made by the Commission under section 5ZOA of the Act, I must as soon as reasonably practicable prepare a report of the reasons for the difference and present this to the House of Representatives

Limit settings for units

- note that the Commission has recommended adjustments to limit settings, which result in reduced auction volumes compared to the status quo
- 6 **note** that this will reduce supply of units into the NZ ETS, which may exert an upwards price pressure
- 7 agree to

Either

7.1 update limits for units in the Climate Change (Auctions, Limits, and Price Controls for Units) Regulations 2020 to the settings in the table below as recommended by the Commission (preferred)

| Limit | | Millions of units for each year | | | | | |
|--|------|---------------------------------|------|------|------|--|--|
| | 2023 | 2024 | 2025 | 2026 | 2027 | | |
| New Zealand units available by auction | 24.4 | 23.3 | 21.1 | 18.7 | 16.3 | | |
| Approved overseas units used | 0 | 0 | 0 | 0 | 0 | | |
| Overall limit on units | 30.8 | 29.6 | 27.4 | 24.9 | 22.4 | | |



7.2 update limits for units to reflect auction volumes if no technical adjustment is made while retaining the stockpile adjustment recommended by the Commission (see Table 1) and consequentially amend the numbers in rec 7.1 (not preferred)

Or

7.3 update limits for units to reflect auction volumes if a mid-point technical adjustment is made, while retaining the stockpile adjustment recommended by the Commission (see Table 1) and consequentially amend the numbers in rec 7.1 (not preferred)

Or

7.4 update limits for units to reflect auction volumes if a mid-point technical adjustment is made, and updating the stockpile adjustment to occur over ten years rather than by 2030 (see Table 1) and consequentially amend the numbers in rec 7.1 (not preferred)

Price control settings for units

- 8 **note** that NZU prices affect costs faced by households and the economy, including the prices of fossil fuels and electricity
- 9 note that price control settings for units are intended to mitigate unacceptably low or high NZ ETS prices and are not intended to signal price expectations to the market, nor to be triggered regularly or often
- note that status quo price control settings appear to have been encouraging market participants to bid high prices in order to trigger and exhaust the cost containment reserve fully each year

Price floor – auction reserve price

note that the Commission has recommended increasing the price floor from \$32.10 to \$60 in 2023, and subsequently increasing at 3 percent plus inflation

12 agree to

Either

12.1 updating the auction reserve price to reflect the Commission's recommendation presented in the table below (preferred)

| Year | 2023 | 2024 | 2025 | 2026 | 2027 |
|-----------------------|-------|-------|-------|-------|-------|
| Auction reserve price | 60.00 | 64.00 | 68.00 | 71.00 | 75.00 |

Or

12.2 extending status quo auction reserve prices adjusted for inflation for all years (not preferred)

| Year | 2023 | 2024 | 2025 | 2026 | 2027 |
|-----------------------|---------|---------|---------|---------|-------|
| Auction reserve price | \$33.06 | \$35.90 | \$38.67 | \$41.45 | 44.35 |

Or

retaining status quo auction reserve prices adjusted for inflation for 2023 and 2024, and then moving towards the Commission's recommended settings (not preferred)

| Year | 2023 | 2024 | 2025 | 2026 | 2027 |
|-----------------------|---------|---------|---------|---------|---------|
| Auction reserve price | \$33.06 | \$35.90 | \$44.28 | \$52.65 | \$61.02 |

Or

12.4 increasing the auction reserve price to \$45 in 2023, and then increasing from that point (not preferred)

| Year | 2023 | 2024 | 2025 | 2026 | 2027 |
|-----------------------|---------|---------|---------|---------|---------|
| Auction reserve price | \$45.00 | \$47.97 | \$50.70 | \$53.34 | \$56.01 |

Upper price control setting – the cost containment reserve (CCR)

- note that secondary market NZU prices have to date risen to the level of the upper price control setting
- note that a significant increase to the CCR trigger price is an attempt to decouple NZU prices from the upper price control setting
- 15 agree to

Either

15.1 update the cost containment reserve trigger price and volume as follows (Commission's recommendation; preferred):

| Cost containment | 2023 | 2024 | 2025 | 2026 | 2027 |
|-------------------------|-------|--------|-------|-------|-------|
| reserve | | | | | |
| | | Tier 1 | | | |
| Trigger price | \$171 | \$182 | \$193 | \$203 | \$214 |
| Reserve volume, million | 2.9 | 2.8 | 2.6 | 2.3 | 2.1 |
| NZUs | | | | | |
| | | Tier 2 | | | |
| Trigger price | \$214 | \$228 | \$241 | \$254 | \$268 |
| Reserve volume, million | 5.1 | 4.9 | 4.6 | 4.2 | 3.8 |
| NZUs | | | | | |
| Total reserve volume, | 8.0 | 7.7 | 7.2 | 6.5 | 5.9 |
| million NZUs | | | | | |

Or

15.2 updated CCR volumes and status quo trigger price extended and adjusted for inflation for all years (not preferred)

| Cost | containment | 2023 | 2024 | 2025 | 2026 | 2027 |
|------------|----------------|---------|---------|-------------------------|----------|----------|
| reserve | | | | \wedge | | |
| Trigger pr | rice | \$80.64 | \$91.61 | \$10 <mark>3</mark> .24 | \$115.84 | \$129.97 |
| Reserve v | olume, million | 8.0 | 7.7 | 7,2 | 6.5 | 5.9 |
| NZUs | | | | | | |

Or

15.3 updated CCR volumes and status quo trigger price settings adjusted for inflation in 2023 and 2024, then moving towards the Commission's recommended settings in subsequent years (not preferred)

| Cost containment | 2023 | 2024 | 2025 | 2026 | 2027 |
|-------------------------|---------|---------|----------|----------|----------|
| reserve | | | | | |
| Trigger price | \$80.64 | \$91.61 | \$117.63 | \$143.65 | \$169.67 |
| Reserve volume, million | 8.0 | 7.7 | 7.2 | 6.5 | 5.9 |
| NZUs | | | | | |

Or

15.4 updated CCR volumes and increasing the CCR trigger price to \$120 in 2023, then increasing annually from that point (not preferred)

| Cost | containment | 2023 | 2024 | 2025 | 2026 | 2027 |
|-----------------|-------------------|----------|----------|----------|----------|----------|
| reserve | ! | | | | | |
| Trigger | price | \$120.00 | \$127.92 | \$135.21 | \$142.24 | \$149.64 |
| Reserve NZUs | e volume, million | 8.0 | 7.7 | 7.2 | 6.5 | 5.9 |

Or

- 15.5 disabling the CCR by setting the CCR volume at zero (not preferred)
- note that if NZU prices rise to the level of the recommended CCR trigger prices, this would have impacts on costs faced by households and the economy including increased fossil fuel and electricity prices
- agree to inviting development of additional actions if the cost containment reserve is triggered
- note new actions to address distributional impacts are likely to require additional resourcing and will likely require Ministers to make trade-offs between different objectives they have for CERF revenue

Sharing decisions with the Commission

- note that the 2022 decisions on NZ ETS unit settings will be a key input to the development of the Commission's 2023 advice
- agree to share this Cabinet paper, appendices, and the minute of decisions with the Commission prior to the public release of these decisions

Drafting instructions

- authorise the Minister of Climate Change to further clarify and develop policy matters relating to the amendments recommended above, in a way not inconsistent with Cabinet's decisions
- invite the Minister of Climate Change to issue drafting instructions to Parliamentary Counsel Office in order to promulgate amendment regulations this year to update New Zealand limits and price control settings for units

Authorised for lodgement

Hon James Shaw

Minister of Climate Change

Appendix One – Regulatory Impact Statement: Annual update to New Zealand Emissions Trading Scheme limits and price control settings for units 2022



Appendix Two – Diagram displaying where NZ ETS unit settings fit within the wider emissions reduction context



Appendix Three – Summary of submitter views on proposals for the 2022 update to New Zealand Emissions Trading Scheme limits and price control settings for units

