Pricing Agricultural Emissions – Government proposal now out for consultation

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Central government has now released its consultation proposal for pricing agricultural emissions, *Pricing Agricultural Emissions: Consultation Document* (Proposal), as an alternative to inclusion in the Emissions Trading Scheme (ETS).[1] Public consultation on the proposal closes on 18 November 2022. The Climate Change Minister and Minister of Agriculture are required by the

Climate Change Response Act 2002 (CCRA) to report on a pricing system by 31 December 2022.

In this article we consider the Government's Proposal and how it differs from He Waka Eke Noa's (HWEN or Partnership) proposal and the Climate Change Commission's (Commission) Response. In our earlier articles we took a deep-dive into HWEN's proposal here and the Commission's Response here

Key Summary:

The Proposal aligns with the Partnership's proposal in a number of ways:

- Split-gas farm-level pricing is proposed (rather than entering the ETS);
- 95% proportional discount (to the NZU price) for long lived greenhouse gases (CO2e) [2] would apply phasing out by 1% each year;
- Collective reporting is supported (but initially for Māori landowners due to complexity);
- Incentive payments are supported for uptake of a range of mitigation technologies and practices;
- Sequestration payments are supported for 'eligible' sequestration;
- Revenue 'recycling' is supported; and
- Synthetic nitrogen fertiliser will be priced (with the government consulting on both the HWEN and Commission's options).

It differs from the Partnership's proposals in the following significant ways:

- Levy prices will be set by Ministers via regulations (rather than a collaborative governance approach with the sector having a key role in advising Ministers on prices);
- CO2e prices will be linked to NZU (HWEN stopped short of recommending this);
- Methane prices will be reviewed periodically (annually or 3 yearly) based on progress towards emission reduction targets and advice from the Commission;
- A simplified system for 2025 may not be ready for implementation, so a 'processor level' levy is proposed as an interim step;

- Collective reporting will initially only be available for Māori landowners;
- Sequestration is recognised but not across all categories suggested by HWEN and additional vegetation categories will in time be brought into the ETS (but with an interim recognition pathway).

Who is this for?

This article is relevant for:

- Any farming or primary industry business which may be directly affected the proposal;
- Landowners;
- Forestry companies;
- Agritech and rural professionals who may have a significant role in assisting farmers to meet their reporting obligations under a Farm-Level System; and
- Funds, investors and third-party financers investing in the primary sector, or looking at investment opportunities or risks created by changes in NZ's climate policy.

Background: How does the government's proposal fit with NZ's climate commitment under the Climate Change Response Act?

The provisions of the CCRA set out NZ's international climate commitments requiring that emissions of biogenic methane[3] (Methane) are 10% less than 2017 emissions by 2030 and 24-47% less than 2017 emissions by 2050. It also requires that other GHG emissions such as N_20 and CO_2 (CO2e) reduce to net zero by 2050. Given that the agricultural sector accounts for 50% of NZ's gross emissions, approximately 94% of N_20 emissions and 91% of biogenic methane emissions[4], it is critical that agriculture contributes to meeting NZ's climate goals.

NZ's agricultural emissions aren't currently captured under the ETS (unlike other sources like industrial processes). The CCRA currently contains provisions setting a date of 1 January 2025 for agricultural pricing to commence.[5] The Emissions Reduction Plan released in May 2022 (which details how New Zealand will meet the emissions budgets) also contains pricing of agricultural emissions by 2025 as one of

the key focus areas for agriculture. For more information on the emissions budgets and emissions reduction plan, see our earlier article here .

The CCRA also requires the Climate Change Minister and Minister of Agriculture to report on a system for pricing agricultural emissions as an alternative to the ETS by 31 December 2022. The report needs to address the matters stated in the Act and before preparing that report, the Ministers need to request a report from the Climate Change Commission (Commission) about what assistance, if any, should be given to participants. The Commission provided an earlier report on assistance in May[6].

The government's proposal currently out for consultation will feed into the Ministers' Report due in December 2022.

In a nutshell: What is the Proposed Farm-Level System?

HWEN, the Commission and the government all agree that a farm-level, split-gas levy is the best way forward to regulate and manage agricultural emissions, although there are divergences in some aspects.

Under a farm-level split gas levy, individual farms would annually calculate and report their emissions of methane and CO2e separately and pay a separate levy for each, depending on the level of emissions. This is where the concept of 'split-gas' comes from[7].

There would be different rates for methane and CO2e, and an ability to recognise on-farm sequestration and incentive payments for use of approved mitigation technology.

Who pays?

As with the HWEN proposal, under the Proposal it is intended to be calculated and paid at the farm level by the business owner(s) of the farm. The concept of calculating and paying at farm level is that farmers and growers would understand and be responsible for the impact of their on-farm decisions.

Contract milkers and/or sharemilkers who do not own the herd would not have any

reporting responsibilities. However, there may be some implications for sharemilkers where both the landowner and sharemilker own livestock within the herd. Feedback is being sought from government on the impacts and implications for these types of arrangements[8].

Reporting Requirements and Farm Audits

Emissions would be required to be reported and paid annually, aligning with a farm's financial reporting year end dates, with some provisions for part-year reporting and levy payments in some circumstances (e.g. business amalgamation or disestablishment etc).[9]

Each farm's annual emissions reporting would be subject to audit. Given the large number of farms (around 23,000) they cannot all be audited in detail, and the government is also considering whether third party verification (similar to the Food Act provisions) might be suitable. A penalties and offences regime will be established[10].

Potential for a Processor Level as an Interim step

Under the Proposal, the Government is also consulting on the possibility of introducing an interim processor-level levy as a transitional step, if the farm-level levy is not ready in 2025[11]. This is effectively because, as identified in the Commission's Report, there is a significant amount of work required to have a farm-level pricing system ready for 2025. A decision about whether to trigger the interim processor-level levy would be made by the Minister of Climate Change and Minister of Agriculture in 2023[12]. The Consultation Document indicates that it would be unlikely to be in place for longer than 2 years and work to implement farm-level pricing would continue to be progressed as a priority[13].

Who would be captured under the proposed Farm-Level System?

Any farms that are GST registered and annually average over any of the following would be captured under the Farm-Level System:[14]

1. 50 Dairy cattle;
2. 550 stock units (sheep, cattle, deer); or

3. 40 tonnes Nitrogen through synthetic fertilizer use.[15]

The proposal differs slightly from the HWEN recommendations in that (initially, at least) minor-emitting livestock sectors (swine, poultry and goats) are excluded. However, the document indicates this could be reviewed over time, to account for changes in their emissions profiles. As with the HWEN proposal, other minor-emitting livestock sectors (alpacas, horses, llamas, mules and asses) are also excluded.

What is the difference between a Farm-Level System and Processor-Level System?

The Partnership considered a range of options for an alternative pricing system to the ETS and consulted with farmers and growers on two options – a Farm-Level Levy and a processor-level hybrid levy. A processor-level levy means the emissions would be calculated at the meat, milk and fertiliser process level, based on the quantity of product received from farms, the costs of which would then be passed on to farms.

HWEN ultimately recommended a Farm-Level System as reflecting a strong preference among Partnership members and farmers for a farm-level pricing system that gives farmers control and autonomy over their farm business and emissions profile and any on-farm actions to reduce emissions.[16] The Farm-level system and split gas approach was also supported by the Commission with the exception of synthetic Nitrogen which the Commission recommended should be regulated at the processor level.

The Government proposes to adopt a farm-level split-gas levy system in line with HWEN (although the decision of how to regulate synthetic Nitrogen is still to be decided). However, concerns have been raised (including by the Commission) about the readiness of the system and sectors for implementation of a farm-level pricing system by 2025. The Government is consulting on a proposed short-term processor-level levy, if the farm-level system is not on track. Regulations would be drafted to update the emissions factors for the interim processor-level levy, establish operational details of the system and set levy rates. Under this levy processors (i.e. meat and milk processors and importers and manufacturers of fertiliser) would be required to pay an emissions levy based on the volume processed or imported[17]. The proposal is that revenue from the interim

processor-level levy would be recycled[18].

Who is responsible for reporting and paying for emissions?

Business owners[19] will be responsible for reporting and paying emissions. Eligible sequestration can be included but only with landowner permission (where the business owner is not also the land owner).

Collectives

The HWEN proposal recommended that farm business owners could register as either an individual farm, or opt into a collective based on a shared processer, a Māori agribusiness enterprise, a catchment community or other grouping.[20] Such collectives could work together to report, pay, reduce and offset their emissions.[21] This would enable internal trading within the collective.

The Government acknowledged that the Federation of Māori Authorities and the Commission recognised the importance of collectives to support Māori land owners. It also recognises the complex ownership and management of Māori land and wants to reduce the administrative burden of pricing on Māori agribusiness. The proposal is that some collectives (such as Māori agribusiness, iwi, hapu and whanau groups) will be enabled from 2025, with a wider range of collectives to be enabled at a later date[22].

Calculating Emissions

Similar to the HWEN proposal, the Government's proposal would use a single centralised emissions calculator managed by the implementation agency that allows a consistent calculation across all farms.[23] As noted in our earlier article, this is consistent with how emissions have been calculated in other agricultural emission programs worldwide such as Australia's Emission Reduction Fund which uses a centralised program FullCam for all its calculations and the Round Table for Sustainable Palm Oil which has a centralised GHG Palm calculator for producers to use. The calculator would be updated annually to incorporate new science or proven mitigations.

The levy would be calculated by calculating a base payment = (kg of methane

emissions x methane levy rate) + (kg of long-lived gas emissions x long-lived gas rate).

Reductions would then be made for incentive payments, which recognise use of approved mitigation technologies and approved sequestration[24].

Data requirements and methodology for calculating emissions would be set out in regulations. The Government foresees that there would be an annual process to update methodologies and this would be undertaken through an Agricultural Inventory Advisory Panel.[25]

The government has also indicated its intention to move beyond a simple methodology to more detailed reporting, capable of capturing a more granular emissions profile over time. However, further development and analysis would be required before it could be implemented[26]. The Proposal agrees with HWEN that this more detailed emission reporting framework be in place from 2027.

We set out in more detail below how emissions and pricing for each would be calculated.

On farm Sequestration

On farm sequestration was one of the main points where HWEN and the Commission differed. The HWEN proposal recommended that farmers and growers be recognised for a wide range on-farm sequestration across a variety of vegetation types including some outside eligible ETS categories. HWEN also recommended that this calculated sequestration discount should be deducted from a farm's total calculated levy (i.e CO_2e levy plus methane levy).[27] However, the Commission advised against bringing on-farm vegetation into a farm-level pricing system which should remain within the ETS for a variety of reasons including that it[28]:

- created inconsistencies with the split-gas target and had the potential to weaken efforts to reach targets (in particular it effectively can allow on farm offsetting for methane);
- increased the complexity of the pricing system and would create implementation challenges;

- was not designed in a way that would guarantee additionality[29]; and
- would create inequities for land owners not included in the agricultural emissions pricing system.

The government considers that in the long term the ETS is the most appropriate mechanism to reward all forms of eligible sequestration from vegetation. This is because it allows farmers (and other landholders) to earn the full price of NZUs for their sequestration, and this can then be traded through the ETS rather than only earning a discounted sequestration price[30]. However, that will require changes to be made to the ETS to incorporate the additional vegetation categories, which would not be ready by 2025[31].

Interim Implementing Agency Contracts for Sequestration

In the interim, the government proposes having a contractual payments system, whereby farmers can be rewarded for their sequestration via entering into a contract with the implementation agency who would pay them funds from the levy for certain recognised sequestration. There would be an application process where successful applicants would enter into a contract with the implementation agency, with requirements to maintain vegetation for the duration of the contract. This sounds similar to the Australian Emission Reduction Fund, whereby landholders undergo a registration and approval process for land based emission reduction projects and get paid via contract from the Government, who will buy the ACCU credits the project produces from funds in the ERF[32]. The Government proposes following vegetation types would be recognised in 2025[33]:

1. management of indigenous vegetation – recognition for increases in carbon in indigenous vegetation linked to specific management interventions. Applies to land wholly or predominantly in indigenous woody vegetation (planted, regenerated or combination). Stock must be excluded.
2. Riparian margins – planted after 2008[34] alongside waterway of minimum size and including predominant mix of woody vegetation. Generic requirements likely for management practices.

The Government was not supportive[35] of including vegetation categories which were small, cyclical and/or regularly pruned, including the following vegetation

categories proposed by HWEN:

- Perennial cropland (orchard/vineyard greater than 0.25ha);
- Scattered forest (min 0.25ha with minimum stocking rate of 15 stems/ha up to point where meets NZETS criteria);
- Shelterbelts (up to point where meet ETS criteria); and
- Woodlots and tree-lots (up to 1ha and at least 0.25ha of tree species have greater than 30% canopy cover).

In addition it also raised issues with the overlap with the ETS of the category of indigenous vegetation established on or after 1 January 2008 (at least 0.25ha) wholly/predominantly in indigenous woody vegetation that was in pasture before 1 January 2008) and noted this category may still be eligible under the management of indigenous vegetation category, by only if the sequestration was actively managed.[36]

What else is not included:

Currently sequestration only accounts for above ground biomass not soil carbon. It also does not recognise sequestration from tussock grassland, wetlands and blue carbon such as mangroves despite approved methodologies for these existing internationally.[37]

Pricing

What will the Pricing be and how will it be set? ….

Pricing, and more importantly, how the price is set, is probably the largest departure from the HWEN proposal.

The Government proposal is that Ministers will set the price for both the long-lived (CO_2e) levy and the biogenic methane levy, taking into account advice from the Commission and following consultation with iwi, Māori and the agricultural sector[38]. The CO_2e price would be linked to the NZ ETS price with a discount which mirrors the 95% free allocation of offsets and phased step-down, which agriculture would receive under the default scenario of agriculture entering into the

ETS [39].

CO2e Pricing

The HWEN proposal recommended that the CO2e levy should initially be set at a level needed to fund the necessary expenditure (including sequestration), incentive discounts, R&D and a share of operating costs. The levy price would be reviewed and updated every 3 years. It stopped short of actually recommending that it be linked to the NZ ETS.

The Government's proposal is that the CO2e levy would be set by Ministers through regulations. It is proposed to be linked to the price of NZUs in the ETS (currently trading at around NZD$85 on the spot market).[40] The Government has adopted the HWEN recommendation that the agricultural sector would receive a 95% free allocation to offset emissions bills, phasing out by 1 percentage point per year[41]. This is the same as what would happen in the default scenario of agriculture coming into the NZ ETS. This free allocation was opposed by the Commission who were concerned with the potential ETS oversupply issues.

Unlike the HWEN proposal, the government proposal is that the CO2e levy would be updated annually to keep it in line with trends in the ETS. The annual review would also include consideration of whether the phase-out rate remains appropriate or should be adjusted[42].

Methane Pricing

The HWEN proposal for methane was that it should be separate, and not connected to, the price of CO2e and be as low as possible to support practice change and meet emission reduction targets. It also recommended a maximum price for methane no greater than $0.11/kg for the first 3 years of pricing until 2028 (effectively creating a price ceiling). Modelling by HWEN based around reduction of methane emissions by at least 4% by 2030 had a methane price of $0.11/kg in 2025 rising to between $0.17 to $0.35/kg by 2030[43].

In contrast, the Government's proposal is that there should be a unique levy price, but this would be set by Ministers after taking advice from the Commission, based on whether NZ was meeting its biogenic methane emissions targets[44]. Other

factors, such as socio-economic impacts would be secondary considerations. The Commission would have an advisory role in setting the initial price. The government is consulting on options of updating the methane levy either annually or every 3 years[45]. This is a material departure from the HWEN proposal which had a more formal advisory role for the primary sector and Māori in the setting of levy pricing. This is now being kept more tightly controlled by Central government.

So what will the price for methane be? As noted above, it will be set by Ministers in regulations. However, the proposal notes that modelling undertaken by government suggests that the price for methane is low compared with that needed to reduce long-lived gases to the target. It also notes that the HWEN recommendation of $0.11/kg would be sufficient to meet targets. However, as largely reported in the media, the government's modelling suggests that even relatively low biogenic methane prices will have a significant impact on pastural land use, with some sheep and beef land being converted to forestry and scrub[46].

Sequestration Pricing

HWEN's proposal was that the initial price for sequestration would be linked to the ETS carbon price, but discounted to reflect that only some of the Farm-level System sequestration counts towards NZ's Nationally Determined Contribution targets; and requires a lower burden of proof than the ETS. An indicative range provided was 75-90% of the NZETS carbon price.

The Government's proposal in the long term is that sequestration will eventually be through the ETS, and therefore on farm sequestration will earn NZUs and therefore trade at market price. In the short term (i.e. for 2025) through the interim step of contracting directly with the implementing agency it is a little more opaque. For recognised interim types (see above) in terms of the pricing it simply states the Government will consider the rate at which carbon sequestration is incentivised but says it could, for example, be 75% of the price of the NZU[47].

Synthetic Nitrogen Fertiliser Pricing

HWEN and the Commission differed on how synthetic nitrogen fertiliser should be priced. HWEN recommended pricing it at a farm-level because farmers and growers have a better understanding of their emissions profiles and the changes they could

make to reduce emissions. The Commission recommended pricing within the ETS ASAP on the basis that it is more economically efficient, there is no emission reduction benefit to pricing at the farm level, and it would capture all users.

The government is consulting on both proposals[48].

Incentive Discounts

The HWEN proposal included incentive discounts for approved actions (eligible practices and technologies) that deliver measurable reductions and would create a clear financial incentive for farmers to uptake actions that reduce emissions.[49] Examples were feed additives or selecting low methane genetic stock for breeding, which may not be widely adopted if the cost of implementation and ongoing per unit cost is higher than the levy cost.[50]

One of the Commission's key observations was that the HWEN modelling relied heavily on incentive payments for currently unavailable technologies such as methane reducing feed additives and vaccines to reduce emissions. The Commission concluded with high confidence that these technologies would not be widely available for NZ farmers by 2025[51], and it therefore had concerns about placing reliance on them. It also expressed concerns that other currently available technologies, such as the use of low protein or methane forages and effluent methane capture would not be able to be incorporated into the national GHG inventory by 2025 and therefore such reductions would not be able to contribute towards NZ's emission budgets.

The government's response on whether incentive payments will be available at 2025 (and for what types of actions) is not immediately apparent from the Consultation Document. The government clearly supports the use of incentive payments to encourage the uptake of mitigation practices and technologies and explicitly states that *"…it is not planning to achieve emissions reductions through widespread, rapid land-use change as a result of the introduction of farm-level pricing."[52]* It also notes that the mitigations 'initially rewarded' in the pricing system would be relatively simple to recognise from a data and reporting perspective and gives a list of 'possible options' – low-emissions animal genetics, effluent pond treatments, low-protein or low-methane forages, feed additives and nitrogen inhibitors[53]. It proposes that as new science and mitigations are proven

or become available in NZ, they will be incorporated into the pricing method and incentive system[54]. However, it also states that although there is a lot of investment in agricultural GHG mitigations, some benefits to farms and growers will not be available until the medium-to-long term[55]. The proposal notes that the government is seeking feedback on the impacts and implications of this mechanism to ensure that it is equitable and does not create perverse incentives to delay action.

How will the revenue from the system be used?

HWEN proposed that revenue from the levy be invested back into the primary sector for R&D to support further emission reductions and lower emissions food and fibre production; as well as contributing to the administrative costs of the system. This is known as revenue recycling.

In contrast, the Commission raised equity issues with ring-fencing levy revenue for use by the agricultural sector to reduce future emissions, which is not available or proposed for other sectors in the ETS.

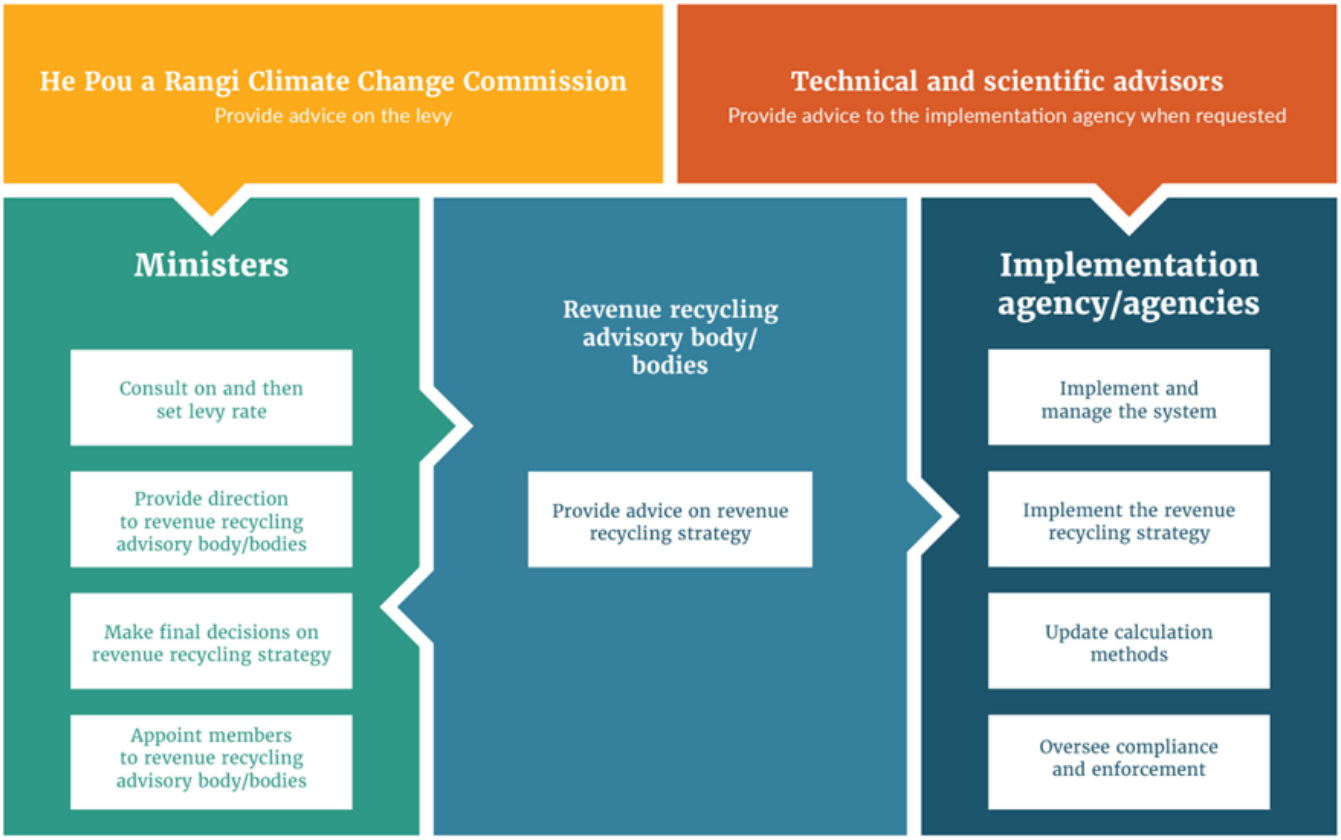
The government accepted HWEN's recommendation for revenue recycling. The proposal is that revenue generated by the levy will be used to fund administration of the scheme and incentive and sequestration payments. Any remaining funds would be subject to a revenue recycling strategy, with an advisory body in place to advise Ministers on the recycling strategy. The government has also adopted HWEN's proposal of a dedicated fund for Māori landowners, with the fund administered by Māori, for Māori. The proposal is that a minimum percentage of overall revenue would need to go into the dedicated fund.[56]

It should also be noted that the proposal is that revenue from the interim processor-level levy would also be recycled[57]. If synthetic nitrogen fertiliser is priced at the farm level (Option 1) revenue would be recycled in the same way as the other farm levy revenue[58]. However, if synthetic nitrogen fertiliser is priced through the NZ ETS (option 2) revenue would be distributed through the Climate Emergency Response Fund along with other NZ ETS revenue[59].

Governance and decision making

HWEN recommended a System Oversight Board (SO Board) with expertise and representation from Primary sector, working closely with an independent Māori Board to recommend levy rates, prices, and incentive discounts and set the strategy for use of levy revenue.[60] It also recommended an Independent Māori Board be formed, who would also sit on the SO Board.[61] Day to day administration will be undertaken by an Implementation Agency (which could be an existing or newly formed agency) which would be responsible to the Boards.

As noted above, the government's proposal is for a more streamlined model with Ministers setting levy rates after receiving advice from the Commission. Consultation would be undertaken with iwi, Māori and the agricultural sector. This model keeps more control over the key decision of setting prices within Central government utilising a more traditional model of Minister decision after consultation with Māori and the primary sector. The government's proposed governance structure is set out below[62]:


He Pou a Rangi Climate Change Commission
Provide advice on the levy
Technical and scientific advisors
Provide advice to the implementation agency when requested
Ministers
Consult on and then set levy rate
Provide direction to revenue recycling advisory body/bodies
Make final decisions on revenue recycling strategy
Appoint members to revenue recycling advisory body/bodies
Revenue recycling advisory body/ bodies
Provide advice on revenue recycling strategy
Implementation agency/agencies
Implement and manage the system
Implement the revenue recycling strategy
Update calculation methods
Oversee compliance and enforcement

Implementation Review in 2030

HWEN recommended a detailed pricing review in 2028 by the System Oversight Board to test the effectiveness of the system in meeting its objectives, and it seemed that the intention was this review is broad enough to completely overhaul the pricing system should it be required.[63]

The government's proposal is that a post-implementation review would be conducted in 2030 which could consider:

- Extent to which agricultural emissions have reduced
- Projected future emissions from sector
- Opportunities to improve effectiveness of farm-level pricing system
- Social and economic impact of the levy to date
- Assessment of the level of support provided to the sector.

What will the financial impact on Farmers be?

In our earlier article https://www.cooneyleesmorgan.co.nz/articles/id/806 we looked at the modelling undertaken by HWEN, which modelled a range of prices (for methane, CO2e, Sequestration and Incentive discounts).[64] The Partnership was clear to note that all modelling output should be interpreted as indicative only.[65] The HWEN modelling showed average farm profit varied from 0 to 7.2% reduction in average farm profitability, but there is significant variation across different farm systems.[66] Impacts on sheep and beef operations in particular faced a greater impact on their bottom line than dairy under the same levy rates.

The government has released its own modelling, undertaken on a variety of scenarios including processor-level pricing in the ETS (backstop option), a basic

farm-level levy, interim processor-level levy and the HWEN farm-level levy. The modelling of farm-level options was further broken down by modelling the impact of different methane prices – low $0.08/kg, medium $0.11/kg and high $0.14/kg.[67] All the options modelling could meet the 2030 biogenic methane emissions reductions targets. The NZ ETS processor-level option (i.e the default option in the CCRA) generated the highest reductions but also the largest losses in production.

Similar to the HWEN modelling, the modelling showed that sheep and beef would face a greater impact on their bottom line (and greater land use change) than dairy under the same levy rates. This was true across all modelled scenarios. The modelling also showed that the price of methane, and consequential reductions in production and stock numbers, was a key driver of emissions reductions. The adoption of mitigation technology on farm in response to incentive was another driver of emissions reductions, particularly under the farm-level levy. Interestingly, new technologies had minor impacts, even under the most optimistic assumptions about uptake; and sequestration incentives (particularly payments for new scrub sequestration) appeared to improve the effectiveness of pricing. All modelled options were expected to have little impact and only a small reduction in profit for horticulture and arable farming[68].

Want to find out more?

If you're interested in finding out more about changes in climate policy and how they may affect you, or if you need assistance drafting a submission on the proposal, please contact Rachael Zame or another member of the team.

[1] Report available here https://environment.govt.nz/assets/publications/Pricing-agricultural-emissions-consultation-document.pdf

[2] For the purposes of the Report, Long lived GHG emissions include nitrogen oxide (N_20) and Carbon Dioxide (CO_2), and are referred to together as CO_2 equivalent or CO2e.

[3] Biogenic methane means methane gas produced from the agriculture and waste sectors. For the purposes of the Farm-level system, the focus is on agricultural methane emissions.

[4] Emissions Reduction Plan, Chapter 13: Agriculture.

[5] See s2A and 219 CCRA

[6] https://www.climatecommission.govt.nz/our-work/advice-to-government-topic/agricultural-emissions/agricultural-assistance/

[7] See Figure 2, Consultation Document, p19

[8] Consultation Document, p25

[9] Consultation Document, p31

[10] Consultation Document, p72

[11] Consultation Document, p54

[12] Consultation Document, p21

[13] Consultation Document, p54

[14] Consultation Document, p23

[15] If synthetic fertilizer ends up being priced at the processor level, then this threshold would not apply.

[16] Note the other main option considered was setting a levy at the processer level.

[17] Consultation Document, p55

[18] Consultation Document, p56

[19] Person(s) responsible for the overall operation of the farming business, Consultation Document, p24

[20] Ibid.

[21] Recommendations Report page 34.

[22] Consultation Document, p24-25

[23] Consultation Document, p28.

[24] See Figure 2, Consultation Document, p19

[25] Consultation Document p29.

[26] Consultation Document, p30

[27] Under the HWEN proposal a farm's final levy would be determined as follows: Total levy = CO2e levy+ methane levy – sequestration discount.

[28] Consultation Document, p47

[29] Additionality is a core concept of international recognised carbon standards and the ETS which requires that the particular carbon reductions or in this case sequestration where undertaken specifically to reduce emissions and that carbon finance was considered and a component of the decision to proceed. The issue with additionality is pro-active farmers which have already adopted best practices including on farm sequestration do not get rewarded as this forms a part of their baseline.

[30] Consultation Document, p48.

[31] Such as being able to reward pre-1990 forests and other sequestration currently not recognised under the ETS.

[32] For more details see https://www.cleanenergyregulator.gov.au/ERF.

[33] Consultation Document, p50

[34] 2008 has been selected as the baseline due to better satellite imagery which aligns with HWEN recommendation

[35] Consultation Document, p47 and Appendix 6. Reasons why these categories are not being included are set out in Appendix 6.

[36] Consultation document, Appendix 6.

[37] For examples see the voluntary carbon standard methodology VM0007 which allows for both above ground and below ground biomass including wetlands and mangroves, and the Australian Emission Reduction Fund which has approved methodologies for soil carbon and blue carbon.
See https://verra.org/methodology/vm0007-redd-methodology-framework-redd-mf-v1-6/,
https://www.cleanenergyregulator.gov.au/ERF/Choosing-a-project-type/Opportunities-for-the-land-sector/Vegetation-methods/tidal-restoration-of-blue-carbon-ecosystems-method ,
and https://www.cleanenergyregulator.gov.au/ERF/Choosing-a-project-type/Opportunities-for-the-land-sector/Agricultural-methods.

[38] Consultation Document, p32

[39] Consultation Document, p32-33

[40] Spot price from Jarden Securities as of 04 November 2022
https://carbon-pulse.com/category/new-zealand/.

[41] Consultation Document, p32

[42] Consultation Document, p33.

[43] Recommendations Report, p43

[44] Consultation Document, p33

[45] Consultation Document, p33-34

[46] Consultation Document, p38

[47] Consultation Document, p51

[48] Consultation Document, p52-54

[49] Recommendations Report, page 15, Section 7, page 50.

[50] Interestingly, it specifically will not provide direct incentives for land use change to exotic forestry, Recommendations Report, page 15, Section 7, page 50-51.

[51] Commission Report, p70

[52] Consultation Document, p38

[53] Consultation Document, p40

[54] Consultation Document, p28

[55] Consultation Document, p29

[56] Consultation Document, p37

[57] Consultation Document, p56

[58] Consultation Document, p53

[59] Consultation Document, p54

[60] Recommendations Report, page 13.

[61] Recommendations Report page 30.

[62] Consultation Document, p42

[63] Recommendations Report page 49.

[64] Recommendations Report, Section 10, page 70.

[65] Recommendations Report page 11, section 10, page 70.

[66] Recommendations for Pricing Agricultural Emissions page 7.

[67] Regulatory Impact Assessment, p28-29

[68] Regulatory Impact Assessment, p30.ent Proposal now out for Consultation