DRAFT

Proposed national direction on industrial greenhouse gas emissions

Draft evaluation report under Section 32 of the Resource Management Act

Ministry for the Environment
Manatū Mō Te Taiao

New Zealand Government

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Introduction

The Minister for the Environment is proposing national direction under the Resource Management Act 1991 (**RMA**) on industrial greenhouse gas emissions (**the proposal**). This report provides a draft evaluation of the proposal in accordance with section 32 of the RMA. The draft evaluation has been prepared to test the appropriateness, effectiveness and efficiency of the proposal prior to public consultation and to inform stakeholder and submitter feedback on the proposal through public consultation.

The 'proposal' is national environmental standards (**NES**) focused on industrial greenhouse gas (**GHG**) emissions from the burning of fossil fuels supported by a targeted national policy statement (**NPS**). The proposal seeks to support local authority decision-making on industrial GHG emissions under the RMA to support New Zealand's emission reduction targets and the transition to a low emissions economy. The intention is that the proposal is in place by 31 December 2021 when the statutory barriers in the RMA to considering the effects of GHG emissions on climate change are repealed[1].

The report is structured in three parts as follows:

Part 1 – Overview to the draft evaluation

This section provides background to the proposed national direction on industrial GHG emissions and an overview of the legislative requirements for section 32 evaluations and RMA national direction. It also provides an explanation of the approach adopted to undertake this draft section 32 evaluation, and an assessment of the scale and significance of the environmental, economic, social and cultural effects anticipated from the implementation of the proposal.

Part 2 – Statutory and policy context

This section provides an:

- Overview of relevant statutory and policy context that has informed the proposal
- Overview of the resource management issues the proposal seeks to address.

Part 3 – Draft evaluation of the proposal

This section provides a draft section 32 evaluation of the objectives of the proposal and reasonably practicable options for achieving the objectives. This draft section 32 evaluation does not include an assessment of provisions within the proposed NES or NPS – i.e. objectives, policies, rules and standards. The provisions in the national direction instruments will be drafted following Cabinet policy approval in accordance with Government legislative drafting protocols. The focus of this draft section 32 evaluation is therefore on the policy intent of the proposal and the effectiveness and efficiency of the proposed options to achieve the policy objectives.

[1] The Resource Management Amendment Act 2020 will repeal sections 70A, 70B, 104E and 104F of the RMA on 31 December 2021, although this date may be extended up until 30 November 2022 by an Order in Council. These sections prevent regional councils from considering the effects of greenhouse gases on climate change when making discharge rules and considering applications for discharge permits.

Part 3 of this draft section 32 evaluation provides:

- An assessment of the extent to which the objectives of the proposal are the most appropriate way to achieve the purpose of the RMA
- Identification of reasonably practicable options for achieving the objectives
- An assessment of the benefits, costs, effectiveness and efficiency of policy options to achieve the objectives
- An assessment of the risks of acting or not acting where there is uncertain or insufficient information
- An overall conclusion summarising the reasons for the proposal and why it is the most appropriate way to achieve the purpose of the RMA.

Note that the assessment of preferred policy options in this draft section 32 evaluation is preliminary only. It provides an initial assessment of the potential benefits and costs associated with each policy option to help inform public consultation. However, there are a number of uncertainties about the actual environmental, economic, social and cultural costs and benefits of the proposed policy options, the impacts on industry and the potential distributional impacts of the policy options across workers, sectors, regions and communities. The consultation document *Phasing out fossil fuels in process heat: national direction on industrial greenhouse gas emissions* outlines the potential impacts of the policy options and seeks feedback on these impacts, benefits and costs which will help to refine the overall proposal and policy options. A more detailed, quantitative cost-benefit analysis and final section 32 evaluation for the proposal, including the abatement costs of each policy option, will then be prepared to inform Cabinet policy decisions on the proposal.

Part 1 - Overview

Purpose of report

This report provides a draft section 32 evaluation of proposed national direction on industrial GHG emissions under the RMA. The proposed national direction is focused on industrial GHG emissions from the burning of fossil fuels for process heat[2]. The proposal is national environmental standards (**NES**) supported by a targeted national policy statement (**NPS**) to support decision-making when resource consent is required under the NES. This draft section 32 evaluation has been prepared to test the appropriateness, effectiveness and efficiency of the proposal to inform public and stakeholder feedback on the proposal through public consultation. It is intended to support the analysis in the consultation document *Phasing out fossil fuels in process heat: national direction on industrial greenhouse gas emissions.*

The driver for the proposal relates to amendments in the Resource Management Amendment Act 2020 relating to climate change mitigation that come into effect on 31 December 2021[3]. These amendments will repeal the statutory barriers in the RMA that prevent regional councils from considering the effects of GHG emissions on climate change when making air discharge rules (section 70A) and considering applications for discharge permits (section 104E). National direction is being prepared to support decision-making on industrial GHG emissions when these amendments come into effect and to assist in New Zealand's emissions reduction targets.

Context

Climate change

Climate change is having, and will continue to have, widespread impacts on communities, the environment and the economy. Human-induced GHG emissions are causing warming and long-lasting changes in all components of the climate system; increasing the likelihood of severe, pervasive, and irreversible impacts on people and communities[4].

New Zealand is implementing a framework to develop clear and stable climate change policies that contribute to the global effort under the Paris Agreement to limit global average temperature increase to 1.5° Celsius above pre-industrial levels. This will require a significant transition to a low emissions economy. Amendments to the Climate Change Response Act 2002 (**CCRA**) through the Climate Change Response (Zero Carbon) Amendment Act 2019 have set a legally binding emissions target for New Zealand of net-carbon zero by 2050 and require the Government to set budgets and emission reduction plans to achieve that goal. Amendments to the New Zealand Emissions Trading

[2] Process heat is the thermal energy used to manufacture products in industry. Process heat is generated for a number of purposes, including converting milk into powder, wood pulp into paper, metal production and chemical production (e.g. methanol). The process heat sector generates around 11% of New Zealand's GHG emissions and is the second largest source of energy-related emissions after transport (approx. 27 % of energy-related emissions).

[3] Although this commencement date may be extended to no later than 30 November 2022 by Order in Councl.

[4] Intergovernmental Panel on Climate Change (2014), '*Climate Change 2014: Synthesis Report*'.

Scheme (**NZ ETS**) were also made in 2020 to help achieve this target through setting caps on emissions that reduce over time.

Emissions pricing through the NZ ETS will be a key mechanism to support New Zealand transition to a low emissions economy. However, emissions pricing alone is not sufficient to achieve the emissions reductions needed. A broad range of regulatory measures and complementary initiatives will be required.

The RMA and climate change mitigation

The context for national direction on GHG emissions under the RMA is unique compared to other resource management issues. The Resource Management (Energy and Climate Change) Amendment Act 2004 removed the ability of regional councils to consider the effects of GHG emissions on climate change when making discharge rules (section 70A) and considering applications for air discharge permits (section 104E). The 2004 RMA amendments reflect the climate change policy at the time, which was to respond to climate change at the least cost to the economy. Non-price measures, including those under RMA, were assumed to be duplicate and unnecessary unless a strong case could be made for them[5].

Arguably, the Resource Management (Energy and Climate Change) Amendment Act 2004 was only intended to restrict regional councils from considering the effects of GHG emission discharges on climate change (ie, point source discharges). However, the Supreme Court[6] subsequently interpreted the 2004 RMA amendments more widely, concluding that these amendments were also intended to prevent councils from considering GHG emissions that result indirectly from activities under the RMA (eg, land-use activities such as coal mining).

The result of Resource Management (Energy and Climate Change) Amendment Act 2004 and subsequent case law is that climate change mitigation is not considered in RMA planning and decision-making[7]. It has also resulted in an absence of RMA provisions to guide decision-making on the effects of GHG emissions on climate change and air discharges rules that are not fit-for-purpose to support New Zealand's emissions reduction targets.

Resource Management Amendment Act 2020

The Resource Management Amendment Act 2020 came into force on 30 June 2020. The amendment act includes three key amendments to the RMA relating to climate change mitigation:

1) Repealing the statutory barriers to considering the effects of GHG emissions on climate change when making air discharge rules and assessing applications for discharge permits.[8]

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[5] Regulatory Impact Statement '*Linking the Zero Carbon Act 2019 with the Resource Management Act 1991'*, refer: https://www.mfe.govt.nz/sites/default/files/media/RMA/impact-summary-linking-zero-carbon-act-2019-with-rma.pdf

[6] *West Coast Environment v Buller Coal* Ltd [2012] NZSC 87.

[7] However, it is noted that the recently gazetted National Policy Statement for Urban Development 2020 now requires planning decisions relating to urban environments to support reductions in GHG emissions.

[8] Specifically, it will repeal sections 70A, 70B, 104E and 104F of the RMA which were inserted through the Resource Management (Energy and Climate Change) Amendment Act 2004.

2) Requiring regional councils and territorial authorities to "have regard to" emission reduction plans and national adaptation plans under the CCRA when preparing regional policy statements, regional plans and district plans.

3) Enabling a Board of Inquiry or the Environment Court to consider the effects of GHG emissions on climate change when a proposal is called in as a matter of national significance.

The overarching issue addressed by these amendments is to better align the RMA and CCRA to help New Zealand progress a well-managed and timely transition to a low-emissions economy[9]. Amendments 1) and 2) above come into force on 31 December 2021. The delayed commencement of these two amendments aligns with the preparation of the first emissions reduction plan under the CCRA. The emissions reduction plan is being prepared by the Ministry for the Environment and is expected to be published by December 2021. The delayed commencement is also intended to allow time for RMA national direction that supports local authority decision-making to be prepared prior to the amendments coming into force.

Reform of the resource management system

The Government is undertaking a comprehensive reform of the resource management system. Consistent with the recommendations of the Resource Management Review Panel in '*New Direction for Resource Management in New Zealand'*[10], the Government plans to repeal the RMA and replace with three new pieces of legislation.

The proposed **Natural and Built Environments Act** is the main legislation to replace the RMA. The focus of the Natural and Built Environments Act would be to enhance the quality of natural and build environments and achieve positive outcomes to support the wellbeing of present and future generations. Under the proposed Act, central government's proposed new National Planning Framework will provide a set of mandatory national policies and standards on specified aspects of the new system. These will include natural environmental limits, outcomes and targets.

The proposed **Strategic Planning Act** would set long-term strategic goals and facilitate the integration of legislative functions across the resource management system. The proposed Act would require long-term strategies to be developed in each region to identify areas suitable for development, areas that need to be protected, and areas that are vulnerable to climate change and natural hazards. The aim of the regional strategies is to enable more efficient land and development markets to improve housing supply, affordability and choice, and climate change mitigation and adaptation.

The proposed **Climate Change Adaptation Act** would support New Zealand's response to the effects of climate change. It would address the complex legal and technical issues associated with managed retreat and funding and financing adaptation.

[9]Ministry for the Environment (2019), '*Regulatory Impact Statement – Linking the Zero Carbon Act and Resource Management Act 1991'*.

[10] Resource Management Review Panel (2020), '*New Direction for Resource Management in New Zealand'*, https://www.mfe.govt.nz/sites/default/files/media/RMA/rm-panel-review-report-web.pdf

One of the key objectives for the reform is to "better mitigate emissions contributing to climate change"[11]. This proposal for national direction on industrial GHG emissions therefore needs to be consistent with the objectives of the reforms and be designed to 'fit' within the new resource management system to ensure it can be readily transferred to the new system.

Purpose and scope of national direction

There is an absence of provisions under the RMA to consider the effects of GHG emissions on climate change and current rule frameworks are not fit-for-purpose to support New Zealand's emissions reduction targets. This planning gap under the RMA in relation to GHG emissions is likely to lead to inconsistent local authority decision-making, regional emissions leakage and other outcomes that are contrary to New Zealand's wider climate change goals.

This presents a particular issue for point-source discharges of industrial GHG emissions from industrial and trade premises that are currently regulated by rules that are not intended to address climate change impacts. National direction has the potential to address this gap through nationally consistent rules and policy direction on industrial GHG emissions. In addressing this gap in plan provisions under the RMA in relation to industrial GHG emissions, there is also an opportunity to introduce targeted regulation to support the decarbonisation of 'process heat'[12] and significantly contribute to New Zealand's emissions reduction targets. The focus of national direction on industrial GHG emissions therefore targets the sector where there is both a significant opportunity for emissions reductions and the potential for the most uncertainty through RMA consenting processes. The discussion document *Phasing out fossil fuels in process heat: national direction on industrial greenhouse gas emissions* provides more detail on the focused scope of proposed national direction on industrial GHG emissions from process heat.

National direction is also needed to ensure a high level of national consistency in the management of industrial GHG emissions under the RMA. The effects of industrial GHG emissions are different from other discharges typically regulated under the RMA. Industrial GHG emissions do not have localised effects – rather they collectively contribute to the national and global climate change problem. Further, the actual effects of industrial GHG emissions on climate change from individual point-sources (e.g. a coal-fired boiler) will generally always be insignificant when considered in the context of national and global GHG emissions. National direction therefore needs to ensure there are clear requirements to address the cumulative effects of individual industrial GHG emissions on climate change under the RMA and limit discretion through consenting processes.

Note that there is a need for nationally consistent provisions to address GHG emissions from other sources as well as from the industrial sector. However, it is discharges from industrial and trade premises that have the greatest need for regulatory certainty from the date the RMA changes come into effect on 31 December 2021. Wider consideration of how best to regulate other sources of GHG emissions is ongoing but is not likely to be completed prior to this date. However, the intention is to provide non-statutory guidance on how to consider 'non-industrial' GHG emissions under the RMA to support decision-making when the amendments take effect.

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[11] Cabinet paper 'Reforming the Resource Management System': https://www.mfe.govt.nz/sites/default/files/media/RMA/cabinet-paper-reforming-the-resource-management-system_1.pdf

[12] Process heat is the energy used as heat mainly by industrial and commercial sectors for industrial processes, manufacturing and warming spaces.

The policy objectives of the proposal are:

1. *Achieve national consistency and certainty in the management of industrial greenhouse gas emissions under the RMA*

2. *Reduce industrial greenhouse gas emissions to mitigate the adverse effects of climate change and support New Zealand's transition to a low emissions economy.*

Overview of proposal

The proposed national direction instruments to achieve the policy objectives are an NES supported by a targeted NPS to guide decision-making when resource consent is required under the NES. A combination of NPS and NES provisions (objectives, policies, rules and standards) has been identified as the most effective and efficient option to address the current planning gap and achieve the policy objectives. This option can ensure a high level of national consistency and certainty, reduce the need for local authorities to initiate plan changes[13] to manage industrial GHG emissions, and help deliver immediate emission reductions (e.g. by banning new coal-fired assets). These are important outcomes in the context of resource management reform and New Zealand's emission reduction targets over the first set of emissions budgets. Stakeholder feedback has generally been supportive of a combined NES and NPS as the most effective way to achieve the policy objectives, minimise implementation costs for local authorities, and reduce uncertainty for consent authorities, applicants and consent holders.

In summary, the proposal is as follows:

NES:

- Nationally consistent rules that target the discharge of GHG emissions from the burning of fossil fuels to generate process heat in industry

- Avoiding **new emission intensive assets**[14] through:

    - Prohibiting the discharge of industrial GHG emissions from new coal-fired assets

    - Avoiding the discharge of industrial GHG emissions from other new fossil fuel (i.e. natural gas, diesel) assets unless there are no alternatives and the applicant meets specified criteria (preparation of a GHG emissions plan, compliance with best practice standards to reduce emissions)

- Phasing out the use of fossil fuels for process heat in **existing industrial assets** through:

[13] Councils would still be required to give effect to the NPS to the extent relevant when notifying and making decisions on proposed policy statements and plans. However, the NPS would not set any requirements for councils to amend their plans to give effect to the NPS. There is also expected to be limited plan changes/plan reviews initiated that would need to give effect to a NPS on industrial GHG emissions in the context of the wider reform of the resource management system.

[14] 'Assets' in this document refers to the fuel burning equipment used to generate process heat. These assets are generally boilers for most low and medium termperature requirements but these fuel burning assets also inlcude ovens, furnaces and kilns depending on the heat requirements.

- Rules to phase out the use of coal for process heat in existing industrial sites by 2037 (although exact timeframes will depend on when existing discharge permits expire)

- Rules and standards that seek to phase out the use of other fossil fuels for process heat by only allowing consent to be granted in specified circumstances (no practicable alternative fuel sources with lower emissions, preparation of a GHG emission plan, compliance with best practice standards to reduce emissions)

- Setting a maximum consent duration (5-10 years) through reconsenting processes to avoid the further long-term lock in of fossil fuel assets

- Requirements for industry to prepare GHG emission plans that are targeted to the size of the operation with specific requirements to demonstrate how industrial GHG emissions will be reduced over time and how the plant will transition away from fossil fuels.

- Rules and standards that require industry to adopt best practices (technology and process) to reduce industrial GHG emissions.

NPS:

- Overarching objective(s) to reduce industrial GHG emissions to mitigate climate change and support New Zealand's emissions reduction targets

- Policies to:

    - Recognise that industrial GHG emissions from individual discharges have a cumulative effect on climate change regardless of the volume of the emissions

    - Ensure industry adopts best practices to reduce GHG emissions and support the transition to a low emission economy

    - Set out the matters to consider when assessing discharge permit applications for industrial GHG emissions (e.g. content and targets in GHG management plan, alignment with relevant emissions budgets and reduction plans, proposed measures to reduce emissions).

The actual 'provisions' of the proposal have not yet been drafted as this is to occur following Cabinet policy decisions in accordance with standard legislative protocols. Therefore, this draft section 32 evaluation focuses on assessing the appropriateness of the policy objectives to achieve the purpose of the RMA, and the effectiveness and efficiency of the options to achieve the objectives.

Section 32 evaluation reports

The overarching purpose of section 32 of the RMA is to ensure that all proposed statements, standards, regulations, plans, or changes are robust, evidence-based and are the most appropriate, efficient and effective means to achieve the purpose of the RMA.

The first step of any section 32 evaluation is an assessment of whether the objectives of the proposal are the most appropriate way to achieve the purpose of the RMA. Section 5 sets out the

purpose of the RMA, to '*promote the sustainable management of natural and physical resources'*, with sustainable management further defined in section 5(2) of the RMA as:

> *"Managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while–*
>
> (a) *Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
>
> (b) *Safeguarding the life-supporting capacity of air, water, soil and ecosystems; and*
>
> (c) *Avoiding, remedying, or mitigating any adverse effects of activities on the environment."*

Prior to deciding whether to recommend any proposed NES under section 44 of the RMA and when deciding to recommend a NPS under section 52(1)(c), the Minister for the Environment (**the Minister**) is required to prepare and have regard to an evaluation report prepared in accordance with section 32 of the RMA. There is no requirement to prepare a draft section 32 evaluation for proposed national direction instruments prior to public consultation. However, this is good practice to test the appropriateness, efficiency and effectiveness of the proposal prior to public consultation and to inform stakeholder and public feedback on the proposal.

Section 32(1) of the RMA states that evaluation reports must:

(a) *examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act; and*

(b) *examine whether the provisions in the proposal are the most appropriate way to achieve the objectives by—*

   i. identifying other reasonably practicable options for achieving the objectives

   ii. assessing the efficiency and effectiveness of the provisions in achieving the objectives

   iii. summarising the reasons for deciding on the provisions"

(c) *contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal.*

When assessing the efficiency and effectiveness of the provisions in achieving the objectives of the proposal, section 32(2) of the RMA requires that the assessment:

(a) *"identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for—*

   i. economic growth that are anticipated to be provided or reduced; and

   ii. employment that are anticipated to be provided or reduced; and

(b) *if practicable, quantify the benefits and costs referred to in paragraph (a); and*

(c) *assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.".*

Requirements for national direction

To help achieve the purpose of the RMA, the Minister can prepare national directions as set out in Part 5, subpart 1. This proposal involves two national direction instruments:

- National environmental standards prepared under sections 43 - 44A of the RMA
- A national policy statement prepared under section 45 – 55 of the RMA.

National environmental standards

National environmental standards (**NES**) are regulations prepared in accordance with section 46A of the RMA and issued under section 43. NES can prescribe technical and non-technical standards, methods or other requirements relating to land use and subdivision, use of the coastal marine area and beds of lakes and rivers, water take and use, discharges, or noise.

NES can apply nationally or within a specified part of New Zealand (section 43(4)). Under section 43A(1) of the RMA, a NES may:

(a) Prohibit an activity

(b) Allow an activity

(c) Restrict the making of rules and granting of resource consents to matters specified in the standards

(d) Require a person to obtain a certification that an activity complies with the standards

(e) Specify the effect of the standards on existing rules

(f) Require local authorities to review existing permits or resource consents as soon as practicable or within specified timeframes.

NES can state that resource consent may be granted only in the terms and conditions specified in the standard, including the duration of the consent (section 43A(2)(a)(i)). Where NES allow an activity, section 43A(6) of the RMA enables the NES to specify whether the activity is:

(a) A controlled activity and state the matters over which control is reserved

(b) A restricted discretionary activity and state the matters over which discretion is restricted

(c) A discretionary activity

(d) A non-complying activity.

Every local authority and consent authority must observe NES and enforce the observation of that NES to the extent that their powers enables them to do so (section 44A(7) and 44A(8)). Local authorities must also identify where a rule in their plan conflicts or duplicates with a provision in NES and amend their plans to remove that duplication or conflict as soon as practicable without using the process in Schedule 1 of the RMA (section 44A(1)-(5)).

Prior to recommending NES to the Governor-General, the Minister must comply with the following requirements under section 44(1) of the RMA:

(a) Comply with section 46A(3)[15]; and

(b) Prepare an evaluation report for the standard in accordance with section 32; and

(c) Have particular regard to that report when deciding whether to recommend the making of the standard; and

(d) Publicly notify the report and recommendation made under section 46A(4)(c) or 51(2), as the case requires.

National policy statements

National policy statements (**NPS**) are prepared in accordance with section 46A of the RMA and issued under section 52(2). The purpose of a NPS is to state objectives and policies for matters of national significance relevant to achieving the purpose of the RMA (section 45(1)), which every NPS **must** include (section 45A(2)). Section 45A(2) of the RMA also sets out a range of matters and requirements a NPS **may** state as follows:

(a) *the matters that local authorities must consider in preparing policy statements and plans*

(b) *methods or requirements in policy statements or plans, and any specifications for how local authorities must apply those methods or requirements, including the use of models and formulae*

(c) *the matters that local authorities are required to achieve or provide for in policy statements and plans*

(d) *constraints or limits on the content of policy statements or plans*

(e) *objectives and policies that must be included in policy statements and plans*

(f) *directions to local authorities on the collection and publication of specific information in order to achieve the objectives of the statement*

(g) *directions to local authorities on monitoring and reporting on matters relevant to the statement, including—*

i. directions for monitoring and reporting on their progress in relation to any provision included in the statement under this section

ii. directions for monitoring and reporting on how they are giving effect to the statement

iii. directions specifying standards, methods, or requirements for carrying out monitoring and reporting under subparagraph (i) or (ii)

(h) *any other matter relating to the purpose or implementation of the statement*.

A NPS can apply nationally or within a specified part of New Zealand (section 45A(3)). Under section 55(2) of the RMA, a NPS can direct local authorities to amend their policy statements and plans to:

(a) Include specific objectives and policies in the statement; or

(b) Give effect to objectives or policies contained in the policy statement; or

[15] Section 46A(3) sets out two processes to develop national direction – a Board of Inquiry process and an 'alternative' process which is more led by Goverment officials.

(c) Be consistent with any constraint or limit set out in the statement.

The amendments to policy statements and plans required under section 55(2) of the RMA must be done without using the RMA Schedule 1 process (section 55(2A)).

Prior to approval of a NPS, section 52(1) of the RMA states that the Minister:

(a) *first, consider a report and any recommendations made to him or her by a board of inquiry under section 46A(4)(c) or 51, as the case requires*

(b) *secondly, may—*

i. make any changes, or no changes, to the proposed national policy statement as he or she thinks fit

ii. withdraw all or part of the proposed national policy statement and give public notice of the withdrawal, including the reasons for the withdrawal

(c) *thirdly, undertake an evaluation of the proposed national policy statement in accordance with s32 and have particular regard to that evaluation when deciding whether to recommend the statement*.

Approach to draft section 32 evaluation

Methodology

A structured approach to evaluating the proposal has been applied to ensure a consistent and proportionate assessment of the proposal. The approach broadly comprises the following elements:

- Analysing the relevant statutory and policy context, including the interactions with other national direction
- Identifying and analysing the relevant resource management issues the proposal seeks to address
- Assessing the scale and significance of the environmental, economic, social and cultural effects anticipated from the implementation of the proposal
- Evaluating the objectives of the proposal to determine whether these are the most appropriate way to achieve the purpose of the RMA
- Evaluating whether the proposal is the most appropriate to achieve the objectives by:
    - Identifying other reasonably practicable options for achieving the objectives
    - Assessing the efficiency and effectiveness of the options in achieving the objectives (including an assessment of environmental, economic, social and cultural benefits and costs from the proposal)
    - Summarising the reasons for deciding on the proposal.

As this is a draft section evaluation 32 of the proposal released prior to public consultation, it does not include an assessment of specific provisions (i.e. objectives, policies, rules, standards) and the assessment of policy options focuses more on policy intent. The intention is that a more detailed assessment of the benefits and costs of options will be undertaken post consultation to inform Cabinet policy decisions. The provisions in the proposal will then be drafted following Cabinet policy approval in accordance with standard Government legislative protocols.

Scale and significance of the proposal

Under section 32(1)(c) of the RMA, evaluation reports need to:

> *"Contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal*".

Table 1 below provides an assessment of the scale and significance of the effects anticipated from the proposal against selected criteria.

Table 1: Assessment of the scale and significance of the effects from the proposal.

Criteria	Assessment
Relates to a matter of national importance or significance in terms of the Treaty of Waitangi	Climate change is a significant issue for tangata whenua and the impacts of climate change are having adverse effects on iwi/Māori throughout the country. For example, work recently undertaken through the National Climate Change Risk Assessment indicates that 'priority' climate change risks in New Zealand will disproportionately affect certain Māori groups and interests. Risks of particular significance to Māori identified in the assessment include: • Risks to social, cultural, spiritual and economic wellbeing from loss and degradation of lands and waters; and from loss of species and biodiversity • Risks to social cohesion and community wellbeing from displacement of individuals, families and communities • Risks of exacerbating and creating inequities due to unequal impacts of climate change[16]. The proposal seeks to support New Zealand's emission reduction targets through targeted controls on industrial GHG emissions that will result in the phase out of fossil fuels for process heat. The proposal will work with other climate change initiatives to reduce New Zealand's GHG emissions, and over time this will help to mitigate the adverse effects of climate change on Māori. This is consistent with the Treaty of Waitangi principle relating to active protection. Overall, the proposal is assessed as being **moderately significant** in terms of the Treaty of Waitangi.
Relates to a matter that affects or potentially affects any structure, feature, place,	Climate change is having significant impacts on the natural and built environment throughout New Zealand through increased frequency of extreme weather events, with particularly significant impacts in the coastal environment through ongoing sea-

[16] Ministry for the Environment (2020), '*National Climate Change Risk Assessment for Aotearoa New Zealand: Main report – Arotakenga Tūraru mō te Huringa Āhuarangi o Āotearoa*: *Pūrongo whakatōpū'*.

Criteria	Assessment
or area of national significance	level rise and inundation. As such, there are numerous places, structures and features of national significance that are vulnerable to the effects of climate change, including those in the coastal environment. The proposal seeks to supports New Zealand's emission reduction targets and the impacts of human induced GHG emissions on climate change by targeting the industrial GHG emissions produced by the process heat sector. The discussion document *Phasing out fossil fuels in process heat: national direction on industrial greenhouse gas emissions* provides more detail as to why the scope of proposed national direction is focused on industrial GHG emissions from process heat. Over time, this will help to reduce the risks of climate change impacting on structures, features, places and areas of national significance, including those in the coastal environment. Overall, the proposal is assessed as being **moderately significant** in terms of how it relates to structures, features, places, or areas of national significance.
Is required to maintain or enhance New Zealand's interests and obligations concerning aspects of the national or global environment	New Zealand has international obligations to reduce GHG emissions to 30% below 2005 levels by 2030 under the Paris Agreement. The purpose of the Paris Agreement is to keep the global temperature change to less than 2°C above pre-industrial levels, while pursing efforts to limit the global temperature increase to 1.5°C. New Zealand ratified the Paris Agreement in 2016, which commits New Zealand to having a GHG emissions reduction target and regularly updating it, reporting on GHG emissions and reporting on progress on meeting national GHG emission reduction targets. The proposal is directly related to New Zealand's international obligations under the Paris Agreement. It is part of an overall framework in New Zealand to address climate change through GHG emission pricing, targeted regulation and supporting initiatives. The proposal is targeted at reducing GHG emissions from industry, and in particular the burning of fossil fuels to generate process heat. This sector has been identified as an area where RMA controls can effectively reduce GHG emissions in the first set of emission budgets under the CCRA. The discussion document *Phasing out fossil fuels in process heat: national direction on industrial greenhouse gas emissions* provides more detail as to why the scope of proposed national direction is focused on industrial GHG emissions from process heat. Accordingly, the proposal is assessed as being **highly significant** in terms of New Zealand's international climate change obligations.
Relates to an issue that is localised or affects or potentially affects more than one region	Climate change is widely recognised as a nationally significant issue that is impacting all regions in New Zealand. For example, the National Climate Change Risk Assessment has predicted the following trends in New Zealand due to climate change: • New Zealand's climate has warmed by 1°C over the last 100 years and, if global emissions remain high, temperatures will increase by a further 1.0°C by 2040 and 3.0°C by 2090 • In the last 60 years, sea levels have risen by 2.44mm per year and, if global emissions remain high, sea levels will increase by a further 0.21m by 2040 and 0.67m by 2090. • Extreme weather events such as storms, heatwaves and heavy rainfall are likely to be more frequent and intense. • Large increases in extreme rainfall are expected everywhere in the country, particularly in Northland due to a projected increase in ex-tropical cyclones.

Criteria	Assessment
	• Drought is predicted to increase in frequency and severity, particularly along the eastern side of the Southern Alps[17]. Regions are already experiencing the effects of climate change. New Zealand is observing gradual changes such as sea-level rise and higher average temperatures, and more frequent and severe extreme weather events; such as heatwaves, coastal flooding and changing seasonality. Climate change poses additional risks to New Zealand's communities and environment (natural and built) and will require adaptive responses to build resilience. The proposal seeks to reduce the effects of industrial GHG emissions on climate change as part of the national and international response to this global issue. Over time, this will help to reduce the adverse effects of climate change on all regions in New Zealand. As such, the geographical scale of the issue the proposal relates to is **moderately significant**.
Relates to an issue that is of significance to/could impact on the nation due to its scale or the nature or degree of uncertainty/change to a community or to natural and physical resources	Climate change is already having a significant impact on New Zealand with a range of effects on communities, physical resources (e.g. homes and infrastructure) and natural resources (e.g. coastal lowlands). For example, it was noted in the National Climate Change Risk Assessment report that "*Over the past century, temperatures have increased, glaciers have melted, and sea levels have risen. Such changes will continue and their impacts increase. This will have far-reaching consequences for people, the natural and built environment, the economy and governance*"[18]. The impacts of climate change on New Zealand as a nation are therefore **highly significant** and there is a high level of uncertainty about the future impacts of climate change on both communities and natural and physical resources.
Involve a minor or major change to the current situation (the status quo)	The Resource Management Amendment Act 2020 will remove the statutory barriers in the RMA to assessing the effects of GHG emissions on climate change when making air discharge rules and considering applications for discharge permits. The amendments do not impose an active obligation on local authorities to manage the effects of GHG emissions on climate change, other than the requirement to "have regard to" the emission reduction plans when preparing RMA policy statements and plans. However, feedback from local authorities indicates that they are likely to proactively consider how to manage both direct and indirect GHG emissions once the RMA amendments relating to climate change mitigation come into force on 31 December 2021. The proposal will change the way industrial GHG emissions are regulated and considered through RMA consenting processes by introducing more stringent consenting requirements and standards for the burning of fossil fuels to generate process heat. The discussion document *Phasing out fossil fuels in process heat: national direction on industrial greenhouse gas emissions* provides more detail as to why the scope of proposed national direction is focused on industrial GHG emissions from process heat. Local authorities will need to assess applications to discharge industrial GHG emissions from the burning of fossil fuels in accordance with nationally consistent rules, standards and decision-making criteria. These provisions will require regional councils to consider the climate change implications of industrial GHG discharges, which is a different focus compared to operative air discharge rules that are designed to manage air quality effects. This presents a **moderate change** compared to the status quo for regional councils and industry sectors that currently rely on combustion of fossil fuels to general heat.

[17] Ibid.

[18] Ibid, pg.7.

Criteria	Assessment
Is likely to have a major impact on private property interests or associated compliance and/or administrative costs	The proposal will have economic impacts on industry through: • Introducing new consent requirements • Prohibiting the use of certain fossil fuels to generate process heat for new industrial sites and phasing out the use of fossil fuels in existing industrial sites • New requirements to prepare GHG management plans and adopt best practice to reduce industrial GHG emissions. The actual impacts and costs on industry from the proposal will vary based on a range of factors (emission price, existing technology, location etc.). The impacts of the proposal will be limited for some firms that are already transitioning away from fossil fuels, whereas the economic impacts of the proposal may be significant for some industrial operations (e.g. where there are no economically viable alternative fuel sources to fossil fuels). At national level, the impacts on industry are expected to be **moderate**. The costs and benefits of the proposal for industry are discussed more in Part 3 of this draft evaluation.

Based on this assessment, the scale and significance of the proposal is assessed as being **moderate.**

Consequently, a **moderate level of detail** has been identified as appropriate for the purposes of this draft section 32 evaluation report. A more detailed evaluation of the proposal will also be undertaken following public consultation based on a better understanding of the impacts, benefits, costs and risks of the policy options.

Quantification of benefits and costs

Section 32(2)(b) of the RMA requires that, where practicable, the benefits and costs of a proposal (environmental, economic, social and cultural) are to be quantified. The requirement to quantify benefits and costs ***if practicable*** recognises that it is often very difficult and, in some cases, inappropriate to quantify certain costs and benefits of provisions through section 32 evaluations – particularly those relating to non-market values. Accurately quantifying the costs and benefits of provisions is also particularly challenging for national direction instruments as the costs and benefits of the provisions typically vary regionally and locally due to a range of factors. Where benefits and costs of provisions are quantified or monetised within a section 32 evaluation, it is important to clearly communicate all underlying assumptions, uncertainties and limitations.

For the purposes of this draft section 32 evaluation, the assessment of benefits and costs is qualitative and focused on the policy intent of options. There are a number of uncertainties about the actual benefits and costs of the policy options and feedback is being sought on these impacts through public consultation to inform Cabinet policy decisions. The intention is that a more detailed information on the benefits and costs of policy options will be provided through public consultation and a more detailed, quantitative cost-benefit analysis of the provisions will be undertaken prior to policy decisions on the proposal.

Part 2 – Statutory and policy context

Resource Management Act 1991

Part 2 of the RMA

A fundamental part of carrying out an evaluation under section 32 of the RMA is understanding how the proposal achieves the purpose and principles in Part 2 of the RMA. Section 5 sets out the purpose of the RMA, which is to promote the sustainable management of natural and physical resources. To achieve the purpose of the RMA, all those exercising functions and powers under the RMA (including the Minister) are required to:

- Recognise and provide for the matters of national importance identified in section 6
- Have particular regard to a range of other matters referred to in section 7
- Take into account the principles of the Treaty of Waitangi referred to in section 8.

The sections below identify the matters in Part 2 of the RMA that are most relevant to the proposal.

Section 5

The matters in section 5 of the RMA of most relevance to the proposal are outlined in Table 2.

Table 2: RMA Section 5 – Assessment of relevance to the proposal

Section	Relevance
5(2)	*managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being* **Comment:** The discharge of GHG emissions from industry contributes to the collective accumulation of GHG in the atmosphere and the changing climate in New Zealand. Changes to New Zealand's climate are already occurring, impacting on the environment, the wellbeing of people and communities, the economy, and cultural values and identity[19]. The introduction of national direction under the RMA to assist in the reduction of industrial GHG emissions and support New Zealand's transition to a low emissions economy will help to protect natural and physical resources that are under threat from the impacts of climate change. There will be subsequent benefits from a social, economic and cultural perspective if the most extreme environmental impacts from climate change such as glacier loss, ocean warming and acidification, sea level rise, increased wildfire risk and significant storm risk[20] are able to be mitigated.
5(2)(a)	*sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations* **Comment:** There is a high risk that continued inaction in relation to climate change mitigation under the RMA will result in continued adverse impacts on natural and physical resources, which will impact on the

[19] Ministry for the Environment & Stats NZ (2020). *New Zealand's Environmental Reporting Series: Our atmosphere and climate 2020.* Chapters 3 and 4.

[20] Ibid, pg. 43-45

Section	Relevance
	ability of these resources to meet the foreseeable needs of future generations. These impacts could include a loss of physical resources (e.g. inundation of coastal land, extinction of native species[21]), a reduction in the wellbeing of future generations (e.g. health impacts of a warmer climate, impacts on material wellbeing (jobs, income, food security)) and degradation of social and cultural relations[22]. The proposal will help to mitigate the effects of industrial GHG emissions on climate change as part of New Zealand's overall response to climate change and international commitments to address this global issue. This collective effort to mitigate climate change will increase the likelihood that natural and physical resources will be able to meet the reasonably foreseeable needs of future generations. The proposal also seeks to use resources (fossil fuels) in the industrial sector more sustainably through best practice requirements (technology and process improvements). This will promote the more sustainable use of resources to generate industrial process heat.
5(2)(c)	*avoiding, remedying, or mitigating any adverse effects of activities on the environment* **Comment:** The National Climate Change Risk Assessment report has identified the most significant climate change risks with respect to the environment as[23]: ▪ *Risks to coastal ecosystems, including the intertidal zone, estuaries, dunes, coastal lakes and wetlands, due to ongoing sea-level rise and extreme weather events.* ▪ *Risks to indigenous ecosystems and species from the enhanced spread, survival and establishment of invasive species due to climate change.* ▪ *Risk to potable water supplies (availability and quality) due to changes in rainfall, temperature, drought, extreme weather events and ongoing sea-level rise.* ▪ *Risks to buildings due to extreme weather events, drought, increased fire weather and ongoing sea-level rise.* The proposal aims to reduce industrial GHG emissions to mitigate the effects of these discharges and contribute to New Zealand's broader climate change goals. A collective global effort towards climate change mitigation will help to reduce and mitigate the adverse effects of GHG emissions from individual activities over time.

Section 6

The 'matters of national importance' in section 6 of the RMA that are of most relevance to the proposal are outlined below:

Table 3: RMA Section 6 – Assessment of relevance to the proposal

Section	Relevance
6(a)	*Section 6(a) - the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:* **Comment:** The coastal environment is particularly vulnerable to the effects of climate change. The most significant risk to the coastal environment from climate change is sea-level rise, but other risks include increased frequency and severity of storm events and inundation. The combination of incremental sea level rise and extreme weather events exacerbated by climate change '*can be expected to become more*

[21] Ministry for the Environment. 2020. *National Climate Change Risk Assessment for Aotearoa New Zealand: Main report – Arotakenga Tūraru mō te Huringa Āhuarangi o Āotearoa: Pūrongo whakatōpū*' pg. 9, Table 1.

[22] Ministry for the Environment & Stats NZ. 2020. *New Zealand's Environmental Reporting Series: Our atmosphere and climate 2020*, pg. 47-55.

[23] Ministry for the Environment. 2020. *National Climate Change Risk Assessment for Aotearoa New Zealand: Main report – Arotakenga Tūraru mō te Huringa Āhuarangi o Āotearoa: Pūrongo whakatōpū*. Pg. 9, Table 1.

Section	Relevance
	severe over time and profoundly affect indigenous ecosystems of the intertidal zone, estuaries, dune systems, coastal wetlands, and coastal rivers, streams and lakes, along with the species they support'[24]. These impacts will all contribute to a loss of natural character of the coastal environment over time. Extreme storm events will also impact on the natural character of inland waterbodies and their margins. While the proposal does not immediately contribute to the preservation of the natural character of the coastal environment and inland waterbodies, it will contribute to New Zealand's emissions reduction targets and international efforts to reduce emissions. Stabilisation of global temperatures will help to reduce the impacts of climate change (i.e. sea level rise, extreme weather events), and will result in better preservation of the natural character of the coastal environment and waterbodies in the long-term.
6(c)	*the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna* **Comment:** Increased wildfire risk is one of the biggest risks to areas of significant indigenous vegetation from climate change. Increasing instances of dry spells and droughts are subsequently increasing the number of extreme fire risk days in certain parts of New Zealand, particularly in Central Otago, Blenheim and the Hawkes Bay[25]. New Zealand's indigenous vegetation and fauna habitats are not well adapted to recovering from fire and full recovery could take centuries in some instances[26]. A stabilisation of global temperatures as a result of GHG emission reductions will help to reduce fire risks long term, which would help protect areas of significant indigenous vegetation and significant habitats of indigenous fauna. The proposal will contribute to New Zealand's wider climate change targets by targeting the reduction of industrial GHG emissions, which will help to reduce the adverse effects of climate change on of areas of significant indigenous vegetation and significant habitats of indigenous fauna.
6(d)	*the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers* **Comment:** Sea level rise, increasing inundation of coastal areas and increased frequency of extreme weather events due to climate change is a threat to public access to and along the coastal marine area, lakes and rivers. It also threatens the ability of people to safely access coastal areas and waterbodies. Heavy rainfall events combined with increased wave power from a warmer ocean often result in slips or flooding that can cut off both walking and road access in coastal areas[27]. The proposal will assist with reducing industrial GHG emissions, which in turn will help to slow climate change globally and reduce ongoing threats to public access to and along coastal areas and waterbodies in New Zealand.

Section 7

The 'other matters' in section 7 of the RMA of most relevance to the proposal are outlines in Table 4.

Table 4: RMA Section 7 – Assessment of relevance to the proposal

Section	Relevance
7(b)	*the efficient use and development of natural and physical resources:* **Comment:** The proposal seeks to improve the efficient use of resources (fossil fuels) in the industrial sector through best practice requirements (technology and process improvements). This will promote more efficient use of resources to generate industrial process heat.
7(ba)	*the efficiency of the end use of energy*:

[24] Ibid, pg. 49

[25] Ministry for the Environment & Stats NZ (2020). *New Zealand's Environmental Reporting Series: Our atmosphere and climate 2020*, pg. 44-45.

[26] Ibid, pg. 44-45.

[27] Ibid, pg. 50.

Section	Relevance
	Comment: The proposal will improve the efficiency of the use of energy in the industrial sector through best practice requirements. This will be achieved through process and technological improvement to make more efficient use of energy to generate industrial heat.
7(f)	*maintenance and enhancement of the quality of the environment:* **Comment:** The proposal will contribute to climate change mitigation in New Zealand and New Zealand's international commitments to address this global issue. Reducing the volume of industrial GHG emissions entering the atmosphere will help to maintain the quality of the environment by reducing the adverse effects of climate change over time.
7(j)	*The benefits to be derived from the use and development of renewable energy* **Comment**: The proposal will encourage greater use of renewable energy through phasing out the use of fossil fuels in the industrial sector. The proposal will encourage and require industry to switch to less emission intensive fuels sources including renewable sources (biomass) and electrification (which is primarily generated from renewable sources). The benefits derived from the use of renewable energy will therefore be better recognised by industry and can be given more weight by regulatory authorities when making decisions on industrial process heat applications.

Section 8

The principles of the Treaty of Waitangi that must be taken into account under section 8 of the RMA that are relevant to the proposal are presented in Table 5.

Table 5: RMA Section 8 – Assessment of relevance to the proposal

Principle	Relevance
Partnership - to act reasonably and in good faith	This principle requires the Crown to engage with tangata whenua by taking a partnership approach. The Government has a duty to act in good faith and involve tangata whenua in key decisions relating to the management of industrial GHG emissions, as the climate change implications impact on all New Zealanders, both Māori and Pākehā. partnership approach between the Government and tangata whenua will help ensure meaningful reductions in industrial GHG emissions. Tangata whenua are also significantly invested in finding solutions to climate change as it impacts the social, cultural, spiritual and economic wellbeing of Māori. Iwi authorities will be consulted on the proposal and their feedback will inform further analysis of the policy options and Cabinet policy decisions. It is expected that the process to draft and finalise NES and NPS provisions will involve input iwi/Māori, including partnership approaches where appropriate.
Active protection - duty to protect Māori rights and interests	Active protection as a principle means the Government is required to take positive steps to ensure Māori interests are protected. This is relevant to the process of decarbonising New Zealand's economy as there will be flow on implications for tangata whenua, potentially both positive and negative. Potential impacts on Māori may occur in terms of the environment as a result of the changing climate, impacts on Māori owned or managed industries that currently rely on fossil fuels, and the climate change impacts on Māori owned land, marae and heritage sites such as through increasing sea levels and coastal inundation. As above, iwi authorities will be consulted on the proposal and their feedback will inform further analysis of the policy options and Cabinet policy decisions. It is expected that the process to draft and finalise NES and NPS provisions will involve input iwi/Māori, including partnership approaches where appropriate.

Section 15 of the RMA – discharge of contaminants

Section 15 of the RMA sets out restrictions on the discharge of contaminants into the environment. Of particular relevance is section 15(1)(c) of the RMA which states that no person may discharge a contaminant into air from an industrial or trade premises unless expressly allowed by NES, regulation, regional plan or resource consent. Both 'contaminant' and 'industrial and trade premises' are defined broadly in the RMA as follows (**emphasis added**):

> **Contaminant**
>
> ***contaminant*** *includes* ***any*** *substance (****including gases****, odorous compounds, liquids, solids, and micro-organisms) or energy (excluding noise) or heat, that either by itself or* ***in combination with the same, similar, or other substances****, energy, or heat—*
>
> *a) when discharged into water, changes or is likely to change the physical, chemical, or biological condition of water; or*
>
> *b)* ***when discharged onto or into land or into air, changes or is likely to change the physical, chemical, or biological condition of the land or air onto or into which it is discharged***
>
> **Industrial or trade premises**
>
> ***industrial or trade premises*** *means—*
>
> ***(a) any premises used for any industrial or trade purposes****; or*
>
> *(b) any premises used for the storage, transfer, treatment, or disposal of waste materials or for other waste-management purposes, or used for composting organic materials; or*
>
> *(c) any other premises from which a contaminant is discharged in connection with any industrial or trade process; — but does not include any production land*

GHG emissions meet the RMA definition of contaminant as they are '*gases*' which when '*in combination with the same, similar or other substances*' '*changes or is likely to change the physical, chemical…condition of the…air into which it is discharged*'. Discharges of GHG emissions from industrial sources (including process heat) also meet the definition of industrial or trade premises and are therefore restricted under section 15(1)(c) of the RMA. This means no person may discharge GHG emissions from industrial sources unless the discharge is expressly allowed by a NES, a regional rule or resource consent.

A review of current regional plans and air discharge permits has shown that existing air discharge rules and discharge permits that relate to the discharge of contaminants into air from industrial and trade premises generally authorise the 'discharge of contaminants' into air (rather than identify and authorise specific substances or gases). The consequence is that existing air discharge rules and discharge permits already regulate the GHG emissions from industrial activities as part of the overall discharge as they are caught by the generic term 'contaminants' as defined in the RMA. This is despite regional councils being prevented from considering the effects of GHG emissions on climate change when making the air discharge rule or granting the air discharge permit.

Sections 30 and 31 of the RMA – functions of regional councils and territorial authorities

Sections 30 and 31 of the RMA set out the functions of regional councils and territorial authorities for the purpose of giving effect to the RMA within their respective jurisdictions. Neither of these sections provide local authorities with explicit functions in relation to climate change mitigation.

Under section 30(1)(f) of the RMA, regional councils have the function of "*the control of discharges of contaminants into or onto land, air, or water and discharges of water into water*". Therefore, regional councils have the function of controlling the discharge of industrial GHG emissions (a contaminant) into air and will be allowed to consider the climate change implications of these discharges once the amendments in the Resource Management Amendment Act 2020 relating to climate change mitigation take effect.

Under section 30(1)(c) of the RMA, regional councils have the function of controlling land for certain purposes (e.g. water quality) but this does not extend to controlling the effects of industrial GHG emissions on land as a result of climate change. Therefore, territorial authorities have the responsibility of managing the indirect impacts of industrial GHG emissions that arise from the use and development of land as part of their general function to manage the effects of land-use under section 31(1)(a) of the RMA[28].

Interactions with other National Direction

There are currently five NPSs in effect:

- New Zealand Coastal Policy Statement 2010
- NPS for Electricity Transmission 2008
- NPS for Renewable Electricity Generation 2011 (**NPS-REG**)
- NPS for Freshwater Management 2020
- NPS on Urban Development 2020 (**NPS-UD**).

Table 2 provides a summary of NPSs and associated provisions that are relevant to this proposal.

Table 6: NPSs relevant to proposal

NPS	Objectives/Policies	Relevance
NPS-REG	Various	While not directly relevant to the discharge of GHG emissions, the NPS-REG provisions seek to enable the development of renewable electricity projects. Improving New Zealand's renewable electricity supply combined with transmission upgrades will help industry to electrify their operations. This will help to reduce industrial GHG emissions through encouraging fuel switching to electricity and less reliance on fossil fuels within the industrial sector.

[28] The expectation is that findings of *Buller Coal* in relation to indirect GHG emissions from land-use activities will have limited (if any) relevance once the amendments in the Resource Management Amendment Act 2020 relating to climate change mitigation take effect as this case was focused on the intent of the Resource Management (Energy and Climate Change) Amendment Act 2004.

NPS	Objectives/Policies	Relevance
NPS-UD	Objective 8(a) Policy 1(e)	Objective 8(a) and Policy 1(e) of the NPS-UD provide general policy direction for New Zealand's 'urban environments' to 'support reductions in GHG emissions' as part of achieving 'well-functioning urban environments'. This is to be primarily achieved through land-use and planning decisions relating to urban form and transport networks (e.g. greater provision of public and active transport). As such, there is likely to be limited interaction between the two instruments with respect to industrial GHG discharges as these provisions within the NPS-UD are more focused on GHG emissions reductions from the transport sector.
NPS-UD	Objective 3 Policy 3, 4 and 5	Objective 3 and Policies 3, 4 and 5 of the NPS-UD seek to encourage intensification of urban environments in appropriate locations, with minimum requirements depending on the type of urban environment, zone and accessibility. These requirements may help to support reductions in GHG emissions over time through greater intensification of urban areas. However, changes in the built environment happen very gradually and it is likely to be sometime before these NPS-UD provisions result in any material reduction in GHG emissions. As above, there is likely to be limited interaction between the two instruments with respect to industrial GHG discharges as these provisions within the NPS-UD are more focused on GHG emissions reductions from the urban form/intensification.
NPS-UD	Objective 3 Policy 5	Objective 3 and Policy 5 of the NPS-UD seek to ensure urban areas are well serviced by public and active transport. These provisions may help to accelerate modal shifts to less emission intensive forms of transport and contribute to reducing GHG emissions. However, as with urban form and intensification, changes in transport networks are generally very gradual and it is likely to take some time for these NPS-UD provisions to result in any material reduction in GHG emissions. As above, there is likely to be limited interaction between the two instruments with respect to industrial GHG discharge as these provisions within the NPS-UD are more focused on GHG emissions reductions from the transport sector..

There are currently six NES in effect:

- NES for Air Quality 2004 (**NES-AQ**)[29]
- NES for Sources of Human Drinking Water 2007
- NES for Electricity Transmission Activities 2009
- NES for Assessing and Managing Contaminants in Soil to Protect Human Health 2011
- NES for Telecommunication Facilities 2016
- NES for Plantation Forestry 2017
- NES for Freshwater 2020
- NES for Marine Aquaculture 2020.

Table 3 provides a summary of NES's and associated provisions relevant to the proposal.

[29] The Government recently consulted on amendments to the NES-AQ with consultation closing 31 July 2020. The amendments establish new standards for fine particulate matter ($PM_{2.5}$) and new standards/requirements for domestic solid-fuel burners.

Table 7: NESs relevant to the proposal

NES	Standards	Relevance
NES-AQ	Regulation 17	Regulation 17 prevents the granting of discharge permits for PM_{10} in 'polluted airsheds'. This means that new industrial discharges that may be desirable from a climate change perspective (e.g. burning of wood/biomass to generate process heat compared to the burning of fossil fuels) may not be able to establish in a polluted air shed due to the particulate matter in the discharge.
NES-AQ	Regulation 25-27	Regulations 25-27 of the NES-AQ are standards for the collection and destruction of gas at landfills. The purpose of these standards is the effective management of GHG discharges to air (mainly methane) generated from large landfills[30]. The standards require the collection and destruction of methane gas at all landfill sites with a total design capacity greater than 1 million tonnes of refuse (i.e. large landfills). The standards also set design standards for the flaring of the gas, allow for destruction of collected gas via beneficial uses of methane (such as electricity generation), and facilitate management of organic waste outside of the landfill (e.g. via composting initiatives).

Other legislation

Climate Change Response Act 2002

Climate Change (Zero Carbon) Amendment Act 2019

The Climate Change Response (Zero Carbon) Amendment Act 2019 came into force on 13 November 2019. The amendment act seeks to provide a framework by which New Zealand can develop and implement clear and stable climate change policies that:

- Contribute to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels
- Enable New Zealand to prepare for, and adapt to, the effects of climate change.

The amendment act introduced four key changes to the CCRA:

1) Legally binding domestic GHG emission reduction targets for New Zealand to:
    a. Reduce net emissions of all GHG (except biogenic methane) to zero by 2050
    b. Reduce emissions of biogenic methane to 24–47 % below 2017 levels by 2050
2) A system of five-yearly emissions budgets to act as stepping-stones towards the long-term target
3) A requirement for the Government to develop and implement policies for climate change mitigation and adaptation through an emissions reduction plan and a national adaptation plan

[30] As described in the section 6 of the NES-AQ User Guide: https://www.mfe.govt.nz/sites/default/files/2011-user-guide-nes-air-quality.pdf

4) Establishing an independent Climate Change Commission to provide expert advice and monitoring to help keep successive governments on track to meeting long-term goals.

Emissions reduction plans

The amendments to the CCRA require the Minister of Climate Change to produce the first emissions reduction plan by 31 December 2021. This emissions reductions plan must set out "*the policies and strategies for meeting the next emissions budget, and may include policies and strategies for meeting emissions budgets that have been notified*" and include:

(a) sector-specific policies to reduce emissions and increase removals; and

(b) a multi-sector strategy to meet emissions budgets and improve the ability of those sectors to adapt to the effects of climate change; and

(c) a strategy to mitigate the impacts that reducing emissions and increasing removals will have on employees and employers, regions, iwi and Māori, and wider communities, including the funding for any mitigation action; and

(d) any other policies or strategies that the Minister considers necessary."[31].

Emissions reduction plans under the CCRA will provide an overall mitigation strategy that sets out how New Zealand will meet the relevant budget period domestically. The plans are intended to ensure the Government makes policy decisions necessary to meet emissions budgets and targets in the CCRA.

New Zealand Emission Trading System

The NZ ETS is one of New Zealand's main tools for meeting domestic and international climate change targets by putting a price on GHG emissions. Emission pricing through the NZ ETS creates a financial incentive for:

- Businesses to reduce their emissions
- Landowners to earn money by planting forests that absorb carbon dioxide as the trees grow.

Under the NZ ETS, all sectors of the economy must report to the Government on their annual GHG emissions. These sectors are forestry, agriculture, waste, synthetic gases, industrial processes, liquid fossil fuels (including petrol and diesel suppliers), and stationary energy (such as electricity generation and industrial heating). Covered sectors must surrender an emission unit (**NZU**) for every tonne of carbon dioxide or carbon dioxide equivalent they emit each year.

The NZ ETS has been in place since 2008. A review of the NZ ETS undertaken in 2015/16 found that the scheme did not adequately control the supply of units, which limited its effectiveness in reducing emissions. As a result of this review, a number of amendments to the NZ ETS have been made through the Climate Change Response (Emissions Trading Reform) Amendment Act 2020. Key changes to the NZ ETS as a result of these amendments include:

[31] Section 5ZG of CCRA.

- Supporting emission reduction targets and emissions budgets – to ensure that the NZ ETS is aligned with emission reduction targets under the Paris Agreement and New Zealand's 2050 target and emissions budgets.

- Cap on emissions – enables a cap to be set on emissions that will reduce over time in line with the emissions target. NZU's will be sold at auction up to this cap and the market will determine the price.

- Established price controls to prevent unacceptably high or low emission prices on the market.

- Phasing out industrial allocation from 2021 – at a rate of 1% from 2021-2030, 2% from 2031-2040 and 3% from 2041-2050 (although this can be adjusted based on the risk of emission leakage).

It is too early to assess how emission prices will rise in response to these changes and how effective the cap on emissions will be at reducing emissions in different sectors. However, it is expected that these changes to the NZ ETS will better align the NZU emission price with New Zealand's emissions reduction targets. This will support a cost-effective and just transition.

Resource management issues

This section of the report outlines the current state/approach to managing GHG emissions under the RMA and the resource management issues relevant to the proposal.

Current State – RMA and climate change mitigation

The Resource Management (Energy and Climate Change) Amendment Act 2004

The RMA is currently limited in its approach to addressing climate change mitigation. The Resource Management (Energy and Climate Change) Amendment Act 2004 removed the ability of regional councils to consider the effects of GHG emissions on climate change when making discharge rules and considering applications for air discharge permits.

The intent of the Resource Management (Energy and Climate Change) Amendment Act 2004 was to ensure GHG emissions would be addressed consistently and cost-effectively at the national level though a pricing mechanism (carbon tax was envisaged at the time). It was also envisaged that the pricing mechanism would be supported by national direction under the RMA in the form of a NES on discharges to air[32], but this national direction was never developed[33]. The 2004 RMA amendments to the RMA reflect the climate change policy at the time, which was to respond to climate change at

[32] This was signalled by the insertion of section 104F to the RMA, which anticipcated the introduction of regulations under section 43 to control the effects on climate change from the discharge into air of greenhouse gases.

[33] The National Environment Standards for Air Quality 2008 include regulations relating to GHG emissions (methane) from large landfills. However, these regulations are limited in scope as discussed further in Section 2.3.3 of this report.

the least cost to the economy. Non-price measures, including those under RMA, were assumed to be duplicate and unnecessary unless a strong case could be made for them[34].

Case law on climate change mitigation

Pre-2004 case law

The ability to consider the effects of an activity with GHG emissions on climate change under the RMA was considered (and debated) in a number of cases prior to 2004. These cases provide some insights into the challenges that might occur when granting future consents once consent authorities can consider the effects of discharges of GHG emissions on climate change.

Environmental Defence Society v Auckland Regional Council[35] related to a proposal by Contact Energy to construct and operate a 400 MW gas-fired power station in South Auckland. During the hearing, arguments were presented to the Environment Court that councils cannot address an adverse effect on the environment that extends beyond their boundaries and this is contrary to the provisions in the RMA. However, the Environment Court rejected this argument stating:

> "*The cumulative effects of greenhouse gas emissions are accepted, by the Global Scientific Community and by the New Zealand government, to be widespread and serious. We can find nothing in the wording of the relevant provisions of the Act, particularly in section 5, Part II and in the definitions of "environment and effects" in section 2 which could limit the application of consideration of effects to within the boundaries of a regional council."*[36]

There have also been cases where parties have attempted to dismiss the significance of the effects of individual activities on climate change, citing the *de minimis* principle. For example, *Environmental Defence Society v Taranaki Regional Council* [37] involved an appeal on a decision to grant Stratford Power resource consents to build a 500 MW gas-fired power station where the appellants sought conditions to offset the GHG emissions. Evidence was presented on behalf of the applicant that the 2.6 million tonnes of CO_2 that would be emitted from the plant would be insignificant in a global context, stating this would be around '*1 millionth of total emissions, and contributes in essence to 1 millionth of the effect*' and *'as a result it is not possible for science to identify any definable effects attributable to the carbon dioxide discharge from the application site, locally; regionally or globally'*[38].

However, the Environment Court rejected this argument concluding that GHG emissions have a cumulative effect on the global atmosphere that needs to be considered, stating:

> *Because of the stable nature of carbon dioxide and the fact that each small contribution is spread around the globe to combine and create the greenhouse effect, we are satisfied that, while it cannot be measured scientifically, the effect of the proposed plant will nevertheless be*

[34] Regulatory Impact Statement '*Linking the Zero Carbon Act 2019 with the Resource Management Act 1991'*, refer: https://www.mfe.govt.nz/sites/default/files/media/RMA/impact-summary-linking-zero-carbon-act-2019-with-rma.pdf

[35] *Environmental Defence Society v Auckland Regional Council* A138 [2002].

[36] Ibid, paragraph 63.

[37] *Environmental Defence Society v Taranaki Regional Council* ENC Auckland A184/02.

[38] Ibid, paragraph 19.

more than "de minimis" [sic] or "vanishingly small". It is just this very situation that section 3(d), which relates to cumulative effects, is intended to cover.[39]

The Court also considered how emissions from a proposal should be considered against the 'permitted baseline':

Evidence was presented, relating to the percentage quantity of carbon dioxide emitted, in comparison to the quantity of carbon dioxide emitted from those activities allowed as of right. We did not find that evidence particularly helpful. It is not a question of comparing percentages or quantities of emission. At the end of the day, we have to make a judgement having regard to the cumulative contribution the emissions from the proposed plant will make[40].

Interpretation of 2004 RMA amendments

The Resource Management (Energy and Climate Change) Amendment Act 2004 was focused on regional councils to consider GHG emissions when making air discharge rules and considering applications for air discharge permits. The Supreme Court subsequently interpreted the 2004 RMA amendments more widely, concluding that they were also intended to prevent councils from considering GHG emissions that result indirectly from activities under the RMA. Specifically, in *West Coast Environment v Buller Coal* [41], the Supreme Court considered the extent to the which the consequential effects on climate change from the burning of coal should be considered when determining a land-use application for a coal mine. The Supreme Court concluded:

"*….is not open to territorial authorities and regional councils to regulate activities by reference to the effect on climate change of discharges of greenhouse gases which result indirectly from such activities*"[42].

"*the words "actual or potential effects on the environment" … do not extend to the impact on climate change of the discharge into air of greenhouse gases that result indirectly from [an] activity. Such limitation seems to us to be justified as a matter of necessary implication, essentially on the basis that, when the amended RMA is looked at as a whole, the limitation is so obvious that it goes without saying[43]".*

The Supreme Court has also interpreted the renewable energy exemption in sections 70A and 104E of the RMA to be narrow in scope in that they only apply to applications involving the use and development of renewable energy – it is not open to councils to consider the dis-benefits of non-renewable energy projects[44]. The result of 2004 RMA amendments and subsequent case law is that climate change mitigation is not considered in RMA planning and decision-making[45].

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[39] Ibid paragraph 24.

[40] Ibid, paragrpah 25.

[41] *West Coast Environment v Buller Coal* Ltd [2012] NZSC 87.

[42] Paragraph 175.

[43] Paragraph 172-173.

[44] Refer Greenpeace New Zealand Incorproated v Genesis Power Limited [2008] NZSC 112 at [62].

[45] However, as discussed above, the NPS-UD now requires planning decisions relating to urban environments to support reductions in GHG emissions.

Resource Management Amendment Act 2020

The Resource Management Amendment Act 2020 was passed at the end of June 2020 and included three amendments relating to climate change mitigation:

1. Removing the statutory barriers to considering the effects of GHG emissions on climate change when making discharge rules and assessing applications for discharge permits
2. Requiring regional councils and territorial authorities to "have regard to" emission reduction plans published under sections 5ZI and 5ZS of the CCRA when preparing regional policy statements, regional plans, and district plans
3. Enabling a Board of Inquiry or the Environment Court to consider the effects of GHG emissions on climate change when a proposal is called in as a matter of national significance.

The overarching issue that these amendments seek to address is to better align the RMA and CCRA to help New Zealand progress a well-managed and timely transition to a low-emissions economy[46]. The first two amendments come into force on 31 December 2021. The delayed commencement is to align with the timeframes to produce the first emissions reduction plans under CCRA, which are expected to be published in December 2021. It is also intended to enable national direction to be in place when the amendments come into force. The importance of national direction to support the amendments was articulated by the Environment Committee in their report as follows:

> *"We acknowledge that it will be vital to have direction at a national level about how local government should make decisions about climate change mitigation under the RMA. Otherwise, there could be risks of inconsistencies, overlap of regulations between councils and emissions pricing, and litigation. Therefore, we recommend a delayed commencement for these changes, of 31 December 2021, to ensure there is sufficient time to make the policy arrangements..."*

Problem statement and key resource management issues

Regulatory gap in the RMA for GHG emissions

The Resource Management (Energy and Climate Change) Amendment Act 2004 had the effect of preventing regional councils from considering the effects of GHG emissions **on climate change** when making air discharge rules and considering applications for air discharge permits. However, it does not restrict the ability of regional councils to regulate GHG emissions when making air discharge rules and granting air discharge permits. Existing air discharge rules generally regulate the "discharge of contaminants into air" by targeting the source of the discharge rather than regulating the discharge of specific contaminants (with some limited exceptions). The implication is that existing air discharge rules that regulate the "discharge of contaminants into air" regulate the discharge of GHG emissions within that discharge (as GHG emissions fall within the broad RMA definition of 'contaminant'). Similarly, existing discharge permits that authorise "the discharge of contaminants into air" also authorise the discharge of GHG emissions within the overall discharge.

The Resource Management (Energy and Climate Change) Amendment Act 2004 has therefore created a regulatory gap under the RMA in managing the effects of GHG emissions on climate

[46] Ministry for the Environment (2019), '*Regulatory Impact Statement – Linking the Zero Carbon Act and Resource Management Act 1991'*. Refer https://www.mfe.govt.nz/sites/default/files/media/RMA/impact-summary-linking-zero-carbon-act-2019-with-rma.pdf

change. Existing air discharge rules are not fit-for-purpose to manage GHG emissions as they are designed to address different effects (i.e. air quality). This is particularly concerning for industrial GHG emissions as the default presumption under section 15(1)(c) is that discharges from industrial and trade premises cannot occur unless expressly allowed by a national environmental standard or other regulations, a rule in a regional plan or proposed regional plan or a resource consent. Discharges of GHG from other sectors (e.g. transport, agriculture) will not face an immediate regulatory problem as an absence of GHG discharge rules simply enables the status quo to continue, whereas industrial GHG emissions will immediately be assessed under existing air discharge rules for industrial contaminants, which will not be fit-for-purpose in terms of managing climate change effects.

Most regional plans enable emission intensive industrial discharges to occur as a permitted activity (e.g. burning of natural gas from 22 MW boiler or burning of coal from 5 MW boiler), subject to compliance with other conditions. There is also an absence of provisions (objectives and policies) in RMA policy statements and plans to support decision-making on industrial GHG emissions or on climate change mitigation more generally.

Further, air discharge permits associated with the burning of fossil fuels are often granted for long periods (20-35 years), effectively 'locking-in' these emissions well into the future (and beyond 2050 in some cases)[47]. If new long-lived fossil fuel assets are built, this will require steeper reductions in the future, increase the costs of transitioning, and make it significantly harder to achieve New Zealand's emission reduction targets. There are currently no RMA provisions that prevent these outcomes.

The repeal of the statutory barriers in the RMA to considering the effects of the discharge of GHG emissions on climate change does not impose a positive obligation on regional councils or consent authorities to consider these matters. The manner in which regional councils and consent authorities approach climate change mitigation under the RMA could vary from region to region and in light of the particular factual situation. The regulatory and policy vacuum under the RMA in relation to industrial GHG emissions, and the potential climate change impacts of such emissions, exacerbates this issue and is likely to result in inconsistent approaches, uncertainties and other outcomes that are contrary to the purpose of the RMA and New Zealand's wider climate change goals. In particular:

1. **Inconsistent and complex decision-making:** RMA decision-makers will need to consider the effects of industrial GHG emissions on climate change with no supporting policy guidance or rule framework. This has the potential to result in:
    a. Inconsistent decision-making by consent authorities – both between and within regions
    b. Complex case-by-case assessments and associated debate and litigation
    c. Regulatory uncertainty – it will be unclear how industrial GHG emissions will be considered through consenting processes and what conditions

[47] For example, a review of 45 air discharge permits found that 27 have an expiry date of 2030 or later, 12 have an expiry date of 2040 or later, and four have an expiry date after 2050 (with a mean expiry date of 2034). Examples of emission intensive discharges with long-term permits in the sample include the discharge of contaminants into air from three coal-fired boilers (50 MW total) authorised until 2042 and the discharge of contaminants into air from four coal and oil boilers (140 MW total) authorised until 2045.

may be imposed on industrial GHG emitting activities by consent authorities to address climate change effects.

d. It will be very difficult for consent authorities to assess applications involving the discharge of industrial GHG emissions into air. Unless there is clear policy direction in place to guide assessment of individual applications in a global context and support existing pre-2004 case law, applicants are likely to argue that the effect of their individual industrial GHG emissions on climate change is *de minimis*.

2. **A continuation of the status quo**: Under existing regional plans, significant discharges of industrial GHG emissions can often be established as permitted activity or through a consent process that does not allow for consideration of climate change effects. This has the potential to result in the establishment (and long-term lock in) of emission intensive assets.
3. **Regional emissions leakage:** It is unclear how councils may regulate industrial GHG emissions through air discharge rules once section 70A of the RMA is repealed. Inconsistent regional approaches to regulating industrial GHG emissions creates the potential risk of regional emissions leakage – the inefficient movement of GHG emitting industrial activities to regions with less stringent requirements.

RMA national direction can be used to address these policy and regulatory gaps and ensure a level of national consistency and certainty in the management of industrial GHG emissions under the RMA.

Absence of regulatory incentives to reduce industrial GHG emissions

Avoiding the establishment of new significant sources of GHG emissions is essential to meet New Zealand's emission reduction targets. However, the current emissions price and uncertainty about future prices means fossil fuel technologies continue to remain attractive for industry. Energy investments in the industrial sector tend to be capital intensive and long-term, and businesses can largely be unresponsive to the emissions price until an asset reaches the end of its operational life. This creates the risk of new long-term emission intensive assets being established and subsequently 'locked-in', making it significantly harder to achieve New Zealand's emissions reduction targets and potentially increasing the overall economic and social costs of transitioning. The RMA currently lacks the regulatory incentives to prevent this outcome.

There has been extensive work demonstrating the need to phase out the use of fossil fuel in industry to meet New Zealand's emissions reduction targets[48]. However, the current regulatory regime for managing the discharges of industrial GHG emissions from the burning of fossil fuels is not equipped to support or incentivise this transition. Air discharge rules are not fit-for-purpose to support New Zealand's emission reduction targets for the industrial sector. This is illustrated in Table 4 below, which shows the permitted activity thresholds (energy output) in regional plan rules that relate to fuel combustion based on fuel type. The table shows that the permitted activity thresholds for fuels which have a higher particulate matter but lower GHG emissions (i.e. wood/biomass) are currently more restrictive than for those with high GHG emissions. Further, air discharge permits associated with the burning of fossil fuels are often granted for long periods (20-35 years) effectively 'locking-in' these emissions well into the future (and beyond 2050 in some cases).

[48] Refer to the discussion document *Phasing out fossil fuels in process heat: national direction on industrial* for more information.

Table 8 Permitted activity range and average for fuel combustion (by fuel type) in regional plans

Fuel type	Permitted activity threshold – range	Permitted activity threshold– mean
Natural gas	4-50 MW	10 MW
Coal	0-5 MW	2 MW
Diesel	40 kW to 10 MW	4 MW
Wood/biomass	40 kW to 5 MW	1.5 MW

RMA national direction can be used to address these policy and regulatory gaps and ensure a level of national consistency and certainty in the management of industrial GHG emissions under the RMA. In addressing this policy and regulatory gap, there is an opportunity to use national direction to drive process heat decarbonisation and promote energy efficiency and greater use of renewable energy within industry. Effective national direction will also support local authority decision-making on industrial GHG emissions under the RMA to ensure outcomes that are consistent with the purpose of the RMA and New Zealand's emissions reduction targets. This is further explained further in the next section.

Part 3 - Evaluation of the proposal

Draft evaluation of objectives

Section 32(1)(a) of the RMA requires that the evaluation report examine the extent to which the objectives of the proposal are the most appropriate way to achieve the purpose of the RMA. Section 32(6) states that 'objectives' are the objectives in the proposal where it contains them (i.e. a NPS) or the purpose of the proposal where it does not include objectives (i.e. NES). This draft section 32 evaluation focuses on assessing the policy objectives of proposal overall (i.e. a combined NPS and NES) rather than the wording of objectives that may be included in a NPS. A more detailed assessment of the wording of the NPS objectives and purpose of the NES provisions will be undertaken as part of the final section 32 evaluation following public consultation.

The policy objectives of the proposal are:

1. ***Achieve national consistency and certainty in the management of industrial greenhouse gas emissions under the RMA; and***

2. ***Reduce industrial greenhouse gas emissions to mitigate the adverse effects of climate change and support New Zealand's transition to a low emissions economy.***

Tables 5 and 6 below provide an assessment of whether the objectives of the proposal are the most appropriate way to achieve the purpose of the RMA against selected criteria.

Table 9: Assessment of Objective 1 of the proposal

Objective 1: Achieve national consistency and certainty in the management of industrial emissions under the RMA	
Relevance	*Is the objective directed to addressing a resource management issue/s?* Objective 1 is focused on addressing the core resource management issue the proposal seeks to address - the policy and regulatory gap under the RMA for the management of industrial GHG emissions with respect to climate change impacts. This planning gap has the potential to result in a number of issues and unintended outcomes for the industrial sector when the statutory barriers to considering the effects of GHG emissions on climate change are repealed on 31 December 2021 – including a high level of inconsistency and uncertainty for local authorities, applicants and consent holders. In the absence of any national direction on industrial GHG emissions, local authorities are likely to take different approaches to regulating industrial GHG emissions through RMA plans and consenting processes. Approaches could range from a slight change in decision-making process with limited consideration given to the GHG emissions from a proposed industrial activity, through to council-initiated plan changes to introduce stringent rules for industrial activities with GHG emissions. This inconsistency has the potential to result in considerable uncertainty for consent authorities, applicants, and consent holders. It also has the potential to result in other unintended consequences, such as emissions leakage between regions as applicants seek to locate in locations with the most permissive rules. It may also result in a continuation of the status quo in some regions with no attempt to reduce industrial GHG emissions or mitigate the

adverse effects of climate change on the environment, people and communities, and the economy.

Ensuring that the adverse effects of industrial GHG emissions on climate change are assessed in a nationally consistent manner is therefore the key resource management issue this objective seeks to address. The objective seeks to address this issue by achieving nationally consistent decision-making on industrial GHG emissions under the RMA. Although multiple sectors emit GHG, discharges of GHG emissions from the industrial sector has been identified as the priority area to address as consenting issues are anticipated to arise almost immediately for any air discharge applications involving GHG emissions. Reducing GHG emissions from the use of fossil fuels for process heat is an area where some of the most significant opportunities for emission reductions has been identified in the first set of emissions reduction budgets under the CCRA.

Is the objective focused on achieving the purpose of the RMA?

Objective 1 is focused on achieving the purpose of the RMA and is directly related to a number of Part 2 matters. In particular, Objective 1 is relevant to:

- Section 5(1) to promote the sustainable management of natural and physical resources
- Section 5(2)(b) to safeguard the life supporting capacity of air (among other things)
- Section 5(2)(c) to avoid, remedy and mitigate the adverse effects of activities (including GHG emitting activities) on the environment (atmosphere)
- Section 7(ba) to have particular regard to the efficiency of the end use of energy
- Section 7(j) to have particular regard to the benefits to be derived from the use and development of renewable energy.

Objective 1 is relevant to these matters as it aims to achieve nationally consistent management of industrial GHG emissions in a manner that promotes efficient use of resources, recognises the benefits of transitioning to renewable energy sources, and mitigates adverse effects of GHG emitting industrial activities on climate change. Nationally consistent and improved management of industrial GHG emissions under the RMA will also help ensure that natural (i.e. fuels) and physical (i.e. infrastructure) resources are used and managed in a way that provides for the well-being of people and communities.

Will the objective assist councils to carry out their RMA statutory functions?

Objective 1 is directly related to the functions of regional councils under sections 30(1)(f) to control the discharge of contaminants into air. The provisions that implement Objective 1 will support councils carry out these functions by providing the full suite of provisions (objectives, policies, rules, standards) to consistently manage the effects of industrial GHG emissions on climate change.

In the absence of any national direction on industrial GHG emissions, regional councils will need to decide on an individual basis how they will carry out their function of managing the discharge of GHG emissions to air from industrial and trade premises. As regional councils have been prevented from considering the effects of GHG emissions on climate change under the RMA since 2004, this is likely to present some challenges. For example, there is likely to be limited (if any) in-house expertise to assess the effects of individual industrial GHG emissions on climate change and effectively manage these impacts through new provisions or consenting processes. The provisions that implement Objective 1 will help to address these capacity and capability issues and assist regional councils carry out their RMA functions in relation to the

Objective 1: Achieve national consistency and certainty in the management of industrial emissions under the RMA	
	discharge of contaminants through nationally consistent rules and decision-making criteria to effectively manage industrial GHG emissions.
Usefulness	*Is the intent of the objective clearly expressed?* The intent of Objective 1 is clearly expressed. It seeks to achieve national consistency and certainty in the management of industrial GHG emissions and is expressed in a manner which is clear to all parties. The objective clarifies the importance of managing industrial GHG emissions under the RMA in a nationally consistent and certain manner to reduce the risk of poor outcomes and decision-making. A nationally consistent approach to managing general GHG emissions under the RMA is widely accepted as necessary to support New Zealand's emission reduction targets and this objective clarifies that intent with respect to the industrial sector through national direction. The objective will be achieved through a combination of provisions in a NES and NPS, which has been identified as the most effective and efficient approach to achieve the desired level of national consistency and certainty. Note that more detail as to why the scope of proposed national direction has been limited to industrial GHG emissions from process heat at this stage can be found in the discussion document. *Does the objective provide sufficient direction for decision making?* The objective is the overall purpose of the proposal (a combined NES and NPS) and is therefore not intended to directly guide decision-making. The NES and objectives of the NPS will be drafted following public consultation in accordance with Government's legislative and NPS drafting protocols. Objective 1 will be achieved through a combination of provisions in a NES and NPS that will provide clear direction to regional councils on how to manage the effects of industrial GHG emissions – this is implicit in the intent of the objective to provide national consistency and certainty. The provisions that implement the objective will limit regional council discretion through consenting processes and avoid the need for plan changes and different planning responses at the regional level. The NES component of the proposal will provide regional councils with nationally consistent rules and standards that can be implemented immediately from 1 January 2022, while the NPS component will provide decision-makers with clear direction on how to assess resource consent applications required under the NES as a relevant matter to consider under section 104 of the RMA (and potentially by providing objectives and policies that regional councils must directly inset into their regional plans without the Schedule 1 process). This approach will help ensure the proposal will provide a high-level of direction for decision-makers as to how applications for industrial GHG discharges should be assessed when the statutory barriers to considering the effects of GHG emissions on climate change in the RMA are removed. Implementation guidance will also be developed to ensure that regional councils and consent authorities have a clear understanding of how to implement the national direction.
Reasonableness	*Will the objective result in unjustifiably high costs on public, specific areas of interest or discrete parts of the community?* The objective seeks to manage industrial GHG emissions in a more nationally consistent, certain and effective manner compared to the status quo under regional air discharge rules, which are not fit-for-purpose to support New Zealand's emissions reduction targets. In practice, this will result in a more stringent regulatory regime for industries using fossil fuels for process heat and will introduce additional consenting requirements. This will result in an increase in consenting costs for industries that use fossil fuels for process heat and may prevent some industries from establishing or being reconsented in certain circumstances. However, the costs to industry from the provisions that implement the proposal are not expected be unjustifiably high as:

Objective 1: Achieve national consistency and certainty in the management of industrial emissions under the RMA	
	• The provisions target a particular industrial sector (fossil fuel use for process heat) rather than all industrial discharges and GHG emitting activities • The most stringent provisions in the proposal are targeted at coal with some more flexibility for industry to use, or continue to use, other fossil fuels where there are no alternatives • The provisions will provide existing fossil fuel users a transitional period (until 2037 or whenever their consents expire) to phase out fossil fuels in their operations and also allow some existing sites to be reconsented past this date (except coal) • The provisions will require regional councils to consider the financial implications for industry when imposing best practice requirements to reduce GHG emissions • There is already an expectation among industry that they need to transition away from the use of fossil fuels as part of New Zealand's national and international commitments to climate change. The provisions that implement Objective 1 will also help to reduce implementation costs for regional councils by providing the full range of provisions (objectives, policies, rules, standards) to support decision-making on industrial GHG emissions under the RMA. This avoids the need for regional councils to initiate plan changes (and avoid the associated costs) and will also help to reduce the risk of debate and litigation through consenting processes. As such, the costs to implement the proposal for regional councils are not expected to be unjustifiably high. No material costs to the community are anticipated from Objective 1 and its implementing provisions. Rather the community is expected to benefit through improved management of GHG emissions to support New Zealand's emissions reduction targets. *Is the objective consistent with identified outcomes sought by iwi/Māori and the wider public?* Specific feedback on the proposal and the policy objectives from iwi/Māori and the public will be sought through the public consultation phase. This will confirm whether the objective is consistent with outcomes sought by iwi/Māori and the wider public. However, at a broad level, the objective is consistent with outcomes sought by iwi/Māori and the public in relation to climate change. Climate change is having (or is expected to have) a number of impacts on iwi/Māori, including on their social, cultural, spiritual and economic wellbeing, for example, the loss of marae and heritage sites to due ongoing sea-level rise and increased frequency of extreme weather events. Objective 1 and its implementing provisions will help to mitigate these impacts by reducing GHG emissions from industry and contributing to New Zealand's broader emission reduction targets. Climate change has also been identified as a key issue for the wider public and there is general acceptance among the public and stakeholders on the need to phase out fossil fuels in industry. The objective is therefore consistent with outcomes sought by the public for New Zealand to better respond to climate change and meet its national and international emission reduction targets.
Achievability	*Is the objective able to be achieved with the tools and resources available to those responsible for implementing the proposal?* Managing the discharge of contaminants to air is already a core function of regional councils. All regional plans include rules to manage the discharge of contaminants into air from the combustion of fossil fuels (including the GHG emissions within the overall discharge), although the nature of those rules vary. Regional councils are therefore very familiar with manging air

Objective 1: Achieve national consistency and certainty in the management of industrial emissions under the RMA	
	discharges through consenting processes, including industrial discharges from the burning of fossil fuels. The objective and implementing provisions will effectively result in nationally consistent rules and standards for the discharge of industrial GHG from the burning of fossil fuels. It is anticipated that industrial GHG discharge rules will generally be more stringent than existing fuel combustion rules for industrial and trade premises. Regional councils have the tools and resources to implement these air discharge rules. However, regional councils have been prevented from considering the effects of GHG emissions on climate change since 2004 so this will be a new function for most councils. The capacity and capability of regional councils to consider the effects of industrial GHG emissions on climate change is expected to be variable between regions. Some regional councils may have limited expertise in this area and may struggle to obtain specialist support to process complex applications under the proposed national direction. However, the provisions that implement the objective will provide clear direction to regional councils and limit council discretion through consenting processes – this is implicit in the intent to achieve national consistency and certainty. Implementation guidance will also be developed to assist regional councils to implement the proposal. This will ensure regional councils have the capacity and capability to implement the proposal and achieve the objective of national consistency and certainty.

Table 10: Assessment of Objective 2 of the proposal

Objective 2: Reduce industrial greenhouse gas emissions to mitigate the adverse effects of climate change and support New Zealand's transition to a low emissions economy.	
Relevance	*Is the objective directly related to addressing a resource management issue?* The objective is directly related to arguably the biggest resource management issue nationally and globally – human induced climate change, which is having adverse impacts on the environment, society and the economy. Climate change is a global resource management issue that requires a collective response at the international, national, regional and local level. The objective is directly aimed at addressing this issue through reducing industrial GHG emissions to assist in achieving New Zealand's emission reduction targets. A reduction in GHG emissions from the use of fossil fuels for process heat has been identified as a priority area to support New Zealand's transition to a low emissions economy and achieve net zero carbon target by 2050. This 2050 target has been legislated in the CCRA and requires a broad a range of measures in order to be achieved. This objective will support the achievement of the 2050 target through the introduction of national direction under the RMA to avoid new emission intensive assets and phase out the use of fossil fuels for process heat. This will lead to a reduction in industrial GHG emissions over time and help address climate change and the impact this is having on the environment, society and the economy. *Is the objective focused on achieving the purpose of the RMA?* Objective 2 is focused on achieving the purpose of the RMA and is directly related to a number of Part 2 matters. In particular, Objective 2 is relevant to: • Section 5(2) to manage the use of natural and physical resources in a way that enables people and communities to provide for their social, economic and cultural well-being

Objective 2: Reduce industrial greenhouse gas emissions to mitigate the adverse effects of climate change and support New Zealand's transition to a low emissions economy.	
	• Section 5(2)(b) to safeguard the life supporting capacity of air (among other things) • Section 5(2)(c) to avoid, remedy and mitigate the adverse effects of activities (including GHG emitting activities) on the environment (atmosphere) • Section 6(a) to recognise and provide for the preservation of the natural character of the coastal environment, waterbodies and their margins • Section 6(c) to recognise and provide for the protection of significant areas of indigenous vegetation and significant habitats of indigenous fauna • Section 7(ba) to have particular regard to the efficiency of the end use of energy • Section 7(j) to have particular regard to the benefits to be derived from the use and development of renewable energy. Objective 2 is relevant to these matters as it aims to reduce industrial GHG emissions to mitigate the effects of these emissions on climate change as part of the national and international response to this issue. This will help achieve the purpose of the RMA through reducing the impacts of climate change on the environment and the well-being of people and communities. This objective also seeks to promote the efficient use of resources and recognise the benefits of transitioning away from fossil fuels to renewable energy sources in the industrial sector consistent with the other matters in section 7 of the RMA. *Will the objective assist councils to carry out their statutory functions?* Objective 2 is directly related to the functions of regional councils under section 30(1)(f) to control the discharge of contaminants into air. The provisions that implement the objective will support councils carry out these functions by providing the full suite of provisions (objectives, policies, rules, standards) to consistently manage the effects of industrial emissions on climate change. The objective also provides clear direction to regional councils to reduce industrial GHG emissions through avoiding the discharge of GHG emissions from new coal-fired boilers and phasing out the use of fossil fuels for process heat. This clear policy direction and nationally consistent rules to manage industrial GHG emissions will assist regional councils with their consenting and decision-making functions in relation to the discharge of contaminants into air.
Usefulness	*Is the intent of the objective clearly expressed?* The intent of Objective 2 is clearly expressed – reduce industrial GHG emissions to help mitigate the adverse effects of climate change and support New Zealand's transition to a low emissions economy. New Zealand's emissions reduction targets are legislated through the CCRA and the overall goal of transitioning to a low emissions economy is widely understood and accepted by the public, local authorities and industry. The objective makes it clear that a reduction in GHG emissions from industry is an important part of this transition and the RMA has a role to play in reducing New Zealand's GHG emissions. *Does the objective provide sufficient direction for decision making?* The objective is the overall purpose of the proposal (a combined NES and NPS) and is therefore not intended to directly guide decision-making. The provisions in the NES and objectives of the NPS will be drafted following public consultation in accordance with Governments legislative and NPS drafting protocols.

Objective 2: Reduce industrial greenhouse gas emissions to mitigate the adverse effects of climate change and support New Zealand's transition to a low emissions economy.	
	The objective will be achieved through provisions in a combined NES and NPS that will provide clear direction to regional councils to reduce industrial GHG emissions through consenting processes. The provisions that implement the objective will limit regional council discretion through consenting processes and provide clear direction that the use of fossil fuel for process heat must be phased out. The NES component of the proposal will provide regional councils with rules and standards that can be implemented immediately from 1 January 2022, while the NPS component will provide decision-makers with clear direction to reduce GHG emissions from the burning of fossil fuels for process heat. This approach will ensure the proposal provides sufficient direction for decision-making on industrial GHG emissions when the statutory barriers to considering the effects of GHG emissions on climate change in the RMA are removed. Implementation guidance will also be provided to ensure that regional councils have a clear understanding of how to implement the national direction and reduce industrial GHG emissions though consenting processes.
Reasonableness	*Will the objective not result in unjustifiably high costs being imposed on the public, specific areas of interest or discrete parts of the community?* The requirement to manage discharges of contaminants to air from industrial and trade premiss is already an explicit regional council function under section 30(1)(f) of the RMA. However, regional councils have been prevented from considering the effects of GHG emissions on climate change through regional rules and consenting processes since 2004. An objective to reduce GHG emissions from industry through RMA decision-making therefore has the potential to result in an increase in consenting costs for industry that discharge GHG and increased implementation costs for regional councils. The provisions that implement Objective 2 will require resource consent for the discharge of industrial GHG emissions to driving the phasing out of fossil fuel use over time and will also prohibit the discharge of industrial GHG emissions in certain circumstances (new coal-fired boilers). This will result in an increase in consenting costs for industries that use fossil fuels to generate industrial heat and potentially prevent the establishment of some operations. However, this is not expected to result in unjustifiably high costs as: • The provisions target a particular industrial sector (fossil fuel use for process heat) rather than all GHG emitting activities • In most cases, there are economically and technically feasible alternatives to the use of coal (and other fossil fuels) to generate process heat • The provisions will provide existing fossil fuel users a transitional period (until 2037 or whenever their consents expire) to phase out fossil fuels in their operations and also allow some existing sites to be reconsented past this date (except coal) • The activities that require resource consent under the proposal generally already have an existing air discharge permit authorising their industrial GHG emissions as part of the overall discharge • The provisions will require regional councils to consider the financial implications and technical feasibility when imposing best practice requirements to reduce industrial GHG emissions • There is already an expectation among industry that they need to transition away from the use of fossil fuels as part of New Zealand's commitment to climate change.

Objective 2: Reduce industrial greenhouse gas emissions to mitigate the adverse effects of climate change and support New Zealand's transition to a low emissions economy.	
	The provisions that implement Objective 2 will also help to reduce implementation costs for regional councils by providing the full range of provisions (objectives, policies, rules, standards) to support decision-making on industrial GHG emissions under the RMA, and clear policy direction to reduce GHG emissions from industry. This avoids the need for regional councils to initiate plan changes (and avoid the associated costs) and will also help to reduce the risk of debate and litigation through consenting processes. As such, the costs to implement the proposal for regional councils are not expected to be unjustifiably high. No material costs to the community are anticipated from Objective 2 and its implementing provisions. Rather the community is expected to benefit through improved management of industrial GHG emissions to support New Zealand's emissions reduction targets and help reduce the impacts of climate change on people and communities. *Is the objective consistent with identified outcomes sought by iwi/Māori and the wider public?* Specific feedback from iwi/Maori and the public will be sought on the proposal through the public consultation phase. This will confirm whether Objective 2 is consistent with outcomes sought by iwi/Māori and the wider public in relation to relation to climate change. However, at a broad level, Objective 2 is consistent with outcomes sought by iwi/Māori and the wider public in relation to climate change. Climate change is having (or is expected to have) a number of impacts on iwi/Maori, including on their social, cultural, spiritual and economic wellbeing, for example, the loss of marae and heritage sites to due ongoing sea-level rise and increased frequency of extreme weather events. Objective 2 and its implementing provisions will help to mitigate these impacts by reducing GHG emissions from industry and contributing to New Zealand's broader climate change targets. Climate change has also been identified as a key issue for the wider public and there is general acceptance among the public and stakeholders on the need to phase out fossil fuels in industry. Objective 2 is therefore consistent with outcomes sought by the community for New Zealand to better respond to climate change and meet its national and international emission reduction targets.
Achievability	*Is the objective able to be achieved with tools and resources available to those charged with implementing the proposal?* Managing the discharge of contaminants to air is already a core function of regional councils. All regional plans already include rules to manage the discharge of contaminants into air from the combustion of fossil fuels (including the GHG emissions within the overall discharge) although the nature of those rules vary. Regional councils are therefore very familiar with manging air discharges through consenting processes, including industrial discharges from the burning of fossil fuels. However, regional councils have been prevented from considering the effects of GHG emissions on climate change since 2004 so this will be a new function for most council officers. The capacity and capability of regional councils to consider these effects is expected to be variable between regions. Some larger councils may have in house technical experts that are able to either process applications and/or upskill consent staff to understand the new technical requirements of the national direction. Other regional councils may not have any expertise in this area and may struggle to upskill or obtain specialist support to process applications under the national direction instrument. The provisions that implement Objective 2 will provide clear direction to regional councils and limit council discretion through consenting processes. Implementation support will also be

Objective 2: Reduce industrial greenhouse gas emissions to mitigate the adverse effects of climate change and support New Zealand's transition to a low emissions economy.	
	provided through guidance, best practice standards, and technical assistance from central government. This will assist regional councils implement the proposal and help ensure that they have the capacity and capability to do this effectively and consistently.

Summary

Based on the assessment above, the draft objectives of the proposal are considered to be appropriate to achieve the purpose of the RMA. A more detailed assessment of the objectives of the proposal will be undertaken following public consultation.

Draft evaluation of the provisions

Section 32(1)(b) requires an assessment of whether the 'provisions' in the proposal are the most appropriate way to achieve the objectives by:

(i) identifying other reasonably practicable options for achieving the objectives; and

(ii) assessing the efficiency and effectiveness of the provisions in achieving the objectives; and

(iii) summarising the reasons for deciding on the provisions

"Reasonably practicable" is not defined in the RMA, but can include options that:

- Are both regulatory and non-regulatory
- Are targeted towards achieving the stated objective(s)
- Are within the resources, duties and powers of those responsible for implementing the option
- Represent a reasonable range of possible alternatives.

Case law has confirmed that the requirement to identify reasonably practicable options will always involve at least two options and there is always a choice to be made between doing nothing and doing something[49].

Reasonably practicable options for achieving the objectives

Three reasonably practicable options for achieving the objectives have been identified:

- National environmental standards (NES)
- National policy statement (NPS)

[49] *Whakatane District Council v Bay of Plenty Regional Council*, CIV-2007-463-000606 (HC), para 40(iii).

- NES supported by a targeted NPS.

National Environmental Standards

NES are regulations made under sections 43-44A of the RMA. In relation to the discharge of industrial GHG emissions, a NES could:

- Prohibit the discharge of industrial GHG emissions from the burning of certain fossil fuels
- Set nationally consistent rules for the discharge of industrial GHG emissions
- Set maximum duration of consent to avoid the long-term lock-in of industrial GHG emissions
- Set nationally consistent best practice standards (which can be incorporated by reference)
- Set out requirements for GHG emissions plans (for example, as a schedule in the NES).

A NES therefore has the potential to be an effective and efficient option to achieve the policy objectives. It can provide a high level of national consistency and certainty in the regulation of industrial emissions. Rules and standards within a NES also have the potential to be effective to reduce industrial emissions through best practice requirements and avoiding/phasing out emission intensive fuels in the industrial sector.

The key limitation of a NES is that it cannot include objectives and policies to guide decision-making on GHG emissions, although matters of control and discretion can assist (where applicable) for controlled and restricted discretionary activities. The absence of supporting policy direction within a NES limits the effectiveness of discretionary and non-complying status to regulate GHG emissions and may require a blunter, inflexible instrument to deliver the policy content (e.g. greater reliance on prohibited activity status to achieve certain outcomes).

National Policy Statements

National Policy Statements (NPS) state objectives and policies for matters of national significance that are relevant to achieving the purpose of the RMA. In relation to the discharge of industrial emissions, a NPS could:

- Provide strong policy direction to 'avoid' GHG emissions from the use of certain fossil fuels for process heat
- Set out matters/criteria to consider when assessing resource consent applications to discharge industrial GHG emissions
- Provide policy direction to phase out use of fossil fuels for process heat
- Set limits or constraints on content of regional plans (for example, the regulation of GHG emissions from certain sectors).

A recognised benefit of a NPS is that it can allow for a degree of flexibility to councils to provide for local context. However, the rationale for providing regional flexibility is limited in relation to GHG emissions as these discharges do not have localised effects and the effects of a GHG emission

discharge are the same regardless of where that discharge occurs. Allowing different regional approaches also creates the potential risk of regional emissions leakage and other outcomes that are contrary to New Zealand's broader climate change goals (e.g. undermining obligations under the NZ ETS).

Another key limitation of a standalone NPS is the time-lag for councils to give effect to the provisions. A NPS can require objectives and policies to be directly inserted into plans and consent authorities would be required to have regard to the relevant provisions under section 104(b)(iii) of the RMA as soon as they come into effect. However, it would still take some time for regional councils to introduce specific rules into their regional plans to regulate GHG emissions[50]. In the interim, GHG emissions would be regulated through existing air discharge rules and the NPS will have no impact on permitted activities and limited/no impact on controlled and restricted discretionary activities (as the scope of matters to consider will not include climate change). This is a particular issue given some of the permitted activity thresholds for industrial emissions are relatively high. The overall implementation costs of each regional council developing their own provisions to give effect to the NPS are also likely to be substantially greater than a set of nationally consistent provisions introduced at the central government level.

Overview of preferred option – NES and targeted NPS

The proposed national direction on industrial GHG emissions is a NES supported by a targeted NPS to support decision-making when consent is required under the NES. A combination of NES and NPS provisions have been identified as the most efficient and effective option to achieve the policy objectives on the basis it:

- Provides the most the efficient and effective way to address the current planning gap in the RMA in relation to industrial GHG emissions by providing the full range of plan provisions (objectives, policies, rules, standards) to manage industrial GHG emissions under the RMA
- Reduces the need for councils to prepare plan changes to give effect to the proposal[51] and regulate industrial GHG emissions, which is particularly important in the context of climate change mitigation and resource management reform
- Will immediately support consistent decision-making on applications for industrial discharges of GHG emissions once the statutory barriers in the RMA to considering the effects of GHG emissions on climate change are removed
- Can ensure a high-level of national consistency and certainty in the regulation and management of industrial GHG emissions under the RMA.

[50] There is a general requirement to give effect to a NPS "as soon as practicable" or within the time specified in the NPS. However, past practice has found that councils are variable in meeting the specified timeframes to give effect to a NPS. Refer: 4Sight (2017), '*Compatibility of national direction instruments with national planning template',* prepared for the Ministry for the Environment.

[51] Councils would still be required to give effect to the NPS to the extent relevant when notifying and making decisions on proposed policy statements and plans. However, the NPS would not set any requirements for councils to amend their plans to give effect to the NPS. There is also expected to be limited plan changes/plan reviews initiated that would need to give effect to a NPS on industrial GHG emissions in the context of the wider reform of the resource management system.

A key outcome sought from the combination of NES and NPS provisions is to avoid complex case-by-case assessments where applicants can argue the effects of their individual industrial GHG emissions on the 'environment' and the climate change are negligible. The intent is that this will be achieved through clear policy direction that recognises that industrial GHG emissions from individual discharges have a cumulative effect on climate change regardless of the volume of the emissions. The NES would also limit the discretion of consent authorities so that resource consent can only be granted on certain terms and conditions helping to avoid complex assessments of the effects of industrial GHG emissions of individual discharges on climate change.

In summary, the proposal is as follows:

NES:

- Nationally consistent rules that target the discharge of GHG emissions from the burning of fossil fuels to generate process heat in industry
- Avoiding **new emission intensive assets**[52] through:
    - Prohibiting the discharge of industrial GHG emissions from new coal-fired assets
    - Avoiding the discharge of industrial GHG emissions from other new fossil fuel assets (i.e. natural gas, diesel) unless there are no alternatives and the applicant meets specified criteria (preparation of a GHG emissions plan, compliance with best practice standards[53] to reduce emissions)
- Phasing out the use of fossil fuels for process heat in **existing industrial assets** through:
    - Rules to phase out the use of coal for process heat in existing industrial sites by 2037 (although exact timeframes will depend on when existing discharge permits expire)
    - Rules and standards that seek to phase out the use of other fossil fuels for process heat by only allowing consent to be granted in specified circumstances (no practicable alternative fuel sources with lower emissions, preparation of a GHG emission plan, compliance with best practice standards to reduce emissions)
    - Setting a maximum consent duration (5-10 years) through reconsenting processes to avoid the further long-term lock in of fossil fuel assets
- Requirements to prepare GHG emission plans that are targeted to the size of the industrial operation and with specific requirements to demonstrate how industrial GHG emissions will be reduced over time and how the plant will transition away from fossil fuels.
- Rules and standards that require industry to adopt best practices (technology and process) to reduce GHG emissions.

[52] 'Assets' in this document refers to the fuel burning equipment used to generate process heat. These assets are generally boilers for most low and medium termperature requirements but these fuel burning assets also inlcude ovens, furnaces and kilns depending on the heat requirements.

[53] Best practices include Best Available Technology (BAT) documents, New Zealand Publicly Available Specifications (PAS) and other standards of reference or guidance that will be developed by EECA.

NPS:

- Overarching objective(s) to reduce industrial GHG emissions to mitigate climate change and support New Zealand's emissions reduction targets
- Policies to:
    - Recognise that industrial GHG emissions from individual discharges have a cumulative effect on climate change regardless of volume of emissions
    - Ensure industry adopts best practices to reduce industrial GHG emissions and support the transition to a low emission economy
    - Set out the matters to consider when assessing discharge permit applications for industrial GHG emissions (e.g. content and targets in GHG management plan, alignment with relevant emissions budgets and reduction plans, proposed measures to reduce emissions).

The actual 'provisions' of the proposal have not yet been drafted as this is to occur following Cabinet policy decisions in accordance with standard legislative protocols. Therefore, this draft section 32 evaluation focuses on assessing the appropriateness of the policy objectives to achieve the purpose of the RMA, and providing an assessment of the effectiveness and efficiency of the options to achieve the objectives. This initial assessment of the benefits and costs of policy options is indicative only and a more detailed assessment of benefits and costs of policy options will be undertaken post-consultation to inform Cabinet policy decisions and the drafting of specific NPS and NES provisions.

Assessment of the efficiency and effectiveness of the provisions

When assessing the efficiency and effectiveness of the provisions in achieving the objectives of the proposal, section 32(2) of the RMA requires that the assessment:

(a) *"identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for—*

iii. economic growth that are anticipated to be provided or reduced; and

iv. employment that are anticipated to be provided or reduced; and

(b) *if practicable, quantify the benefits and costs referred to in paragraph (a); and*

(c) *assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions."*

In light of these requirement, a range of reasonable options to achieve the objectives have been identified. These options have been grouped as follows:

- Avoiding new emission-intensive assets
- Phasing out the use of fossil fuels and fuel switching (existing industrial assets)
- GHG management plans and best practice requirements to reduce emissions

The sections below focus on the preferred options in each of these areas and provide a high-level overview of other options considered. The tables for the preferred policy options in each of the three areas provides an assessment of the benefits, costs, effectiveness and efficiency of each option, along with an assessment of the risks of not acting or acting when there is uncertain or insufficient information. For the purposes of this assessment:

- ***Effectiveness*** *assesses how successful the provisions are likely to be to achieve the objectives and addressing the identified issues*

- ***Efficiency*** *measures whether the provisions will be likely to achieve the objectives at the least cost or highest net benefit to society.*

Note that the assessment of policy options in the tables below is preliminary only. It provides an indicative assessment of the potential benefits and costs associated with each policy option and the efficiency and effectiveness of each policy to help inform public consultation. However, there are a number of uncertainties about the actual environmental, economic, social and cultural costs and benefits of the proposed policy options, the impacts on industry and the potential distributional impacts of the policy options across workers, sectors, regions and communities. The consultation document *Phasing out fossil fuels in process heat: national direction on industrial greenhouse gas emissions* outlines the potential impacts of the policy options and seeks feedback on these impacts which will help refine the overall proposal and policy options. This will then enable a more detailed, quantitative cost-benefit analysis of the provisions to be undertaken, including the abatement costs of each policy option. This will then inform Cabinet policy decisions and the drafting of specific NES and NPS provisions (i.e. objectives, policies, rules, standards),

Table 11: Assessment of preferred options – Avoiding new emission intensive assets[54]

	Costs	Benefits	Risk of Acting / Not Acting if there is uncertain or insufficient information
Option 1: Prohibiting the discharge of GHG emissions from new coal-fired assets	***Environmental*** • Encouraging industry to use alternative fuels such as biomass may have other unintended consequences, such as air quality impacts through increased particulate discharge ***Economic*** • The economic costs to industry from forcing a fuel-switching decision away from coal which will vary based on a range of factors (emission price at time, size of operation etc.) • Some industries may not be able to establish in certain locations if coal is the only viable fuel source (from either a supply or a financial perspective), resulting in lost economic opportunities • There may be distributional issues/impacts – some regions and industries will be economically disadvantaged due to limited fuel alternatives to coal in their area (e.g. dependence on coal in some parts of the South Island)	***Environmental*** • High likelihood that new emissions from intensive coal assets will be avoided, resulting in fewer GHG entering the atmosphere and contributing to climate change • Will help New Zealand meet its international climate change obligations and achieve a zero-carbon economy by 2050 as one of the most emission-intensive fossil fuels will not be able to be used for industrial process heat, leading to the lock-in of significant GHG emissions ***Economic*** • Increased investment in the electricity and biomass markets as these markets mature in response to increased demand. ***Social*** • Positive response from sectors of society concerned about the impacts of climate change as the prohibition of new coal boilers represents tangible change • Potential increased employment opportunities in the biomass and renewable electricity markets	• The risk of not acting is that New Zealand will fail to meet international climate change obligations and domestic emission reduction targets and that the adverse impacts of climate change on the environment and communities increases • The need to phase out coal in process heat to achieve New Zealand's emissions reduction targets is widely accepted and a ban on new coal has been signalled for some time • Failing to act will mean that alternative fuel markets and technologies will not have the impetus to develop quickly unless there is a guarantee that industry is going to be required to move away from using fossil fuels, thereby increasing demand. Waiting until alternative fuel markets mature is not a viable option as the demand has to exist initially to justify

[54] 'Assets' in this document refers to the fuel burning equipment used to generate process heat. These assets are generally boilers for most low and medium termperature requirements but these fuel burning assets also inlcude ovens, furnaces and kilns depending on the heat requirements.

	Costs	Benefits	Risk of Acting / Not Acting if there is uncertain or insufficient information
	Social • Lost opportunities for employment for communities if new industries do not establish because it not economically feasible to use alternatives to coal ***Cultural*** • There are not expected to be any significant cultural costs from this option • Feedback from the public consultation process will help identify any cultural impacts, and the nature and scale of these	• Will help to reduce effects of industrial GHG on climate change and the impacts of climate change on communities over time ***Cultural*** • There are not expected to be any significant cultural benefits from this option • Feedback from the public consultation process will help identify any cultural impacts, and the nature and scale of these	investment in, and development of, these markets • Some of the economic, social and cultural implications of these policies are currently unknown – consultation and the preparation of a CBA will provide further information to reduce the risks of acting without sufficient information or certainty • There is some level of uncertainty on how many industries will be able to meet the tests in Option 2 and therefore obtain consent for new fossil-fuel assets (other than coal)
Option 2: Avoiding the discharge of industrial GHG emissions from other new fossil fuel (i.e. natural gas, diesel) through consenting process by only allow consent to be granted when specified criteria are meet (no technically and economically feasible alternative, preparation of a GHG emissions plan,	***Environmental*** • Allowing for exemptions for new fossil fuel assets to be established in certain situations will lead to new industrial GHG emissions, which has the potential to result in poorer climate change outcomes, both in New Zealand and globally • Risk that industry make fuel switching from coal to gas rather than focusing on using alternative renewable fuels ***Economic*** • Economic costs to industry to meet the tests through consent process or fuel switch • Forcing a fuel-switching decision away from fossil fuels will vary based on a	***Environmental*** • The majority of new fossil-fuel asset applications should be declined (or will not be applied for in the first place because alternative fuels and technologies are available), resulting in fewer industrial GHG emissions entering the atmosphere and contributing to climate change • Conditions placed on consents for new fossil-fuel assets should result in industrial GHG emissions reducing over time in accordance with the required GHG emissions plan and compliance with best practice standards ***Economic***	

	Costs	Benefits	Risk of Acting / Not Acting if there is uncertain or insufficient information
compliance with best practices to reduce emissions) Setting a maximum consent duration (10 years) to inform investment decisions away from fossil fuels and avoid the further long-term lock in of fossil fuel assets.	range of factors (emission price at time, size of operation etc.) • Lost economic opportunities if new industries are unable to establish because they can't meet the relevant tests • Councils will be required to assess applications for new fossil-fuel assets which will require additional resources and technical input to assess best practice requirements etc. ***Social*** • May be opposed by those sectors of society that are seeking more tangible actions to address the climate crisis • Lost opportunities for employment for communities if new industries do not establish because they cannot meet the relevant tests ***Cultural*** • There are not expected to be any significant cultural costs from this option. • Feedback from the public consultation process will help identify any cultural impacts, and the nature and scale of these.	• Provides some flexibility for industries that are technically dependent on fossil-fuels to be able to set up a new plant while still aiming to reduce emissions over time • Potential for increased investment in the renewable electricity and biomass markets as these markets mature in response to increased demand • Less regional economic disparity as the NES will allow for a consent pathway for new fossil fuel assets in regions where there are few/no viable alternatives ***Social*** • Positive response from sectors of society concerned about the impacts of climate change as the strong avoidance focus on new fossil-fuel assets represents tangible change • Potential for increased employment opportunities in the biomass and renewable electricity markets ***Cultural*** • There are not expected to be any significant cultural benefits from this option. • Feedback from the public consultation process will help identify any cultural impacts, and the nature and scale of these.	

	Costs	Benefits	Risk of Acting / Not Acting if there is uncertain or insufficient information
Effectiveness and efficiency	***Effectiveness*** ▪ High level of certainty that a prohibited activity status for new coal-fired boilers will prevent the lock-in of these long-term emissions-intensive assets. ▪ Increased likelihood (but less certain than coal) that the lock-in of other fossil fuel emission-intensive assets will be prevented. ▪ Provide strong direction that the discharge of GHG emissions from the burning of fossil fuels (except coal which would be prohibited) and new industrial assets (or from new equipment) shall be avoided unless it can be demonstrated that there are no other feasible fuel options that result in less emissions (i.e. the onus would be on the applicant to demonstrate this). This will be effective as the exceptions should be tightly defined and limited. ▪ Addresses technical, economic and geographical limitations for fossil-fuel dependent industries that need to set up new plants in the short term while still providing a pathway to reduce GHG emissions over time. As technology evolves and markets mature, there should be fewer reasons in the future that new fossil-fuel assets would be required over less emission-intensive alternatives.	***Efficiency*** ▪ Provides an administratively and resource efficient approach for new coal assets as no new applications will be processed. This reduces the risk of debate and litigation through consenting processes. ▪ More complicated decision pathway for new fossil fuel assets (other than coal) as an element of decision maker discretion is required. However strong policy direction that 'avoiding' new fossil fuel assets should be the default position will assist decision makers when processing applications for new assets. ▪ Assessments of applications for new fossil-fuel assets (except coal) against criteria increase the likelihood that decisions will be challenged and/or permits will be granted for plants where alternative options should have been used. ▪ Allowing exemptions for new fossil fuel assets other than coal is less resource efficient than a prohibited activity approach. It will require upskilling of consent staff at councils, economic and technical assessments of options required from all applicants, technical and economic peer reviews required by councils or third parties for all consents. ▪ Does not pick winners between fuels that emit GHG (except coal), as all applications for new plants or equipment will be treated the same, regardless of the fuel source. ▪ Using national direction to clarify how industrial GHG emissions from new assets will either be avoided or reduced over time avoids the need for councils to undertake plan changes to introduce their own provisions. This is an efficient approach from a time, cost and consistency perspective.	

	Costs	Benefits	Risk of Acting / Not Acting if there is uncertain or insufficient information
Overall evaluation	On balance these two policy options are considered to be the most appropriate to achieve the policy objectives as: • They achieve a balance between complete prohibition of new coal-fired industrial assets (as the most emission intensive fossil fuel used by industry), while still allowing a consent pathway for other new fossil-fuel assets to establish, provided they can meet a strict set of criteria. This allows for a continued reduction in industrial GHG emissions over time as technology evolves and alternative fuel markets develop, making it increasingly unlikely that applications will be able to prove that there are no viable alternatives to fossil fuels in the future. • The use of prohibited activity status for new coal-fired assets will provide a greatly needed stimulus for alternative fuel markets to develop as it creates guaranteed demand for alternative fuels and technology to fill the gap. • The risks of not acting are greater than the risks of acting as urgent action is required to reduce the impact of climate change on the environment, communities and the economy and meet national and international GHG reduction targets.		

Table 12: Assessment of preferred options – Phasing out fossil fuels for process heat

	Costs	Benefits	Risk of Acting / Not Acting if there is uncertain or insufficient information
Option 1: Rules to phase out the use of coal for process heat in existing industrial assets by 2037 through consenting processes	***Environmental*** • Allowing existing coal boilers to continue to emit GHG for the next decade (and beyond in cases where an existing discharge permit expires after 2037) will contribute to the accumulation of industrial GHG in the atmosphere and continue to accelerate climate change impacts over this period. • Reduced access to cheaper products (due to coal being a cost-effective fuel) may cause some customers to source products offshore, resulting in increased industrial GHG emissions internationally. • Encouraging fuel switching to biomass may have other unintended consequences, such as air quality impacts due to increased particulate discharges ***Economic*** • Economic costs to industry from forcing a fuel-switching decision away from coal, which will vary based on a range of factors (emission price at time, size of operation etc.) • Potential for business closures in cases where business models are unable to support a transition away from coal to an economically viable alternative fuel	***Environmental*** • A firm date for phasing out the use of coal in process heat will allow operators to plan for their zero-carbon future and incentivise reductions of industrial GHG over this period as they move towards full equipment and/or fuel replacement. This has significant environmental benefits compared to a 'do nothing' option, particularly in the long term once coal use for process heat has been phased out. ***Economic*** • Long lead in time (at least 8 years) will minimise economic impacts as it gives industry the flexibility to decide when to invest in fuel switching and what technology they will choose. • A clear phase out date gives industry a clear milestone around which to develop transition plans. This provides clarity and certainty for industry when they are considering future investment options in assets and plant development, improving the quality of economic decision making. • Providing a reconsenting pathway for existing coal-fired assets prior to the 2037 phase out date gives industry operational certainty during transition – industry will have certainty that they will be able to operate up until the phase out date using	• The risk of not acting is that New Zealand will fail to meet international climate change obligations and domestic emission reduction targets and that the adverse impacts of climate change on the environment and communities increases • The need to phase out coal in process heat to achieve New Zealand's emissions reduction targets is widely accepted and a ban on new coal has been signalled for some time • Failing to act will mean that alternative fuel markets and technologies will not have the impetus to develop quickly unless there is a guarantee that industry is going to be required to move away from using fossil fuels, thereby increasing demand. Waiting until alternative fuel markets mature is not a viable option as the demand has to exist initially to justify investment in, and development of, these markets • Some of the economic, social and cultural implications of these policies are currently unknown – consultation and the

	Costs	Benefits	Risk of Acting / Not Acting if there is uncertain or insufficient information
	• There will be costs associated with consent applications to enable existing coal assets to continue to 2037. ***Social*** • There may be job losses associated with business closures as a result of the coal phase out. ***Cultural*** • There are not expected to be any significant cultural costs from this option. • Feedback from the public consultation process will help identify any cultural impacts, and the nature and scale of these.	coal (provided they implement best practice requirements) as any expiring consents prior to 2037 will be renewed. This ensures a level playing field for industry and does not unduly penalise consent holders with short term expiry dates prior to 2037 • Potential for increased investment in the renewable electricity and biomass markets as these markets mature in response to increased demand. • Positive response from sectors of society concerned about the impacts of climate change as the phase out of coal boilers represents tangible change • Potential for increased employment opportunities in the biomass and electricity markets. ***Cultural*** • There are not expected to be any significant cultural benefits from this option • Feedback from the public consultation process will help identify any cultural impacts, and the nature and scale of these	preparation of a CBA will provide further information to reduce the risks of acting without sufficient information or certainty • It is unknown how many industries will be able to meet the exemption tests in Option 2 and therefore renew their consents for fossil-fuel assets (other than coal). • The risk of acting with respect to consent reviews is that, in some circumstances, the material reductions in industrial GHG may be minimal and outweighed by the compliance costs of conducting the review. • There is a risk that consent review thresholds will be set at levels that are either overly onerous or ineffective

Option 2: Phasing out fossil fuels in existing industrial assets through consenting processes and only allowing consent to be granted in specified circumstances (no practicable alternative fuel sources with lower emissions, preparation of a GHG emissions plan, compliance with best practice standards to reduce emissions). Setting a maximum consent duration (5-10 years) through reconsenting processes to inform investment decisions away from fossil fuels and avoid the further long-term lock in of fossil fuel assets.	***Environmental*** • Allowing existing fossil fuel plants to renew their consents and continue to emit industrial GHG if they can meet the specified circumstances will contribute to the accumulation of GHG in the atmosphere and continue to accelerate climate change impacts. • Encouraging fuel switching to biomass may have other unintended consequences e.g. air quality impacts due to increased particulate discharges ***Economic*** • Economic costs to industry to meet the tests through resource consent process or fuel switch • Forcing a fuel-switching decision away from fossil fuels will vary based on a range of factors (emission price at time, size of operation etc.) • There will be costs to both industry and councils to assess applications for renewing fossil fuel assets to ensure the specified criteria are met, including processing costs, upskilling of staff, engagement of experts to assist with preparing/assessing GHG emissions plans etc. • The potential closure or temporary shut-down of businesses as they transition their plant to alternative fuels may cause short-term interruptions to supply chains. • Short-term consents and frequent consent applications are costly from	***Environmental*** • A strong avoidance policy gives decision makers direction that applications for industrial fossil fuel consent renewals should be declined unless specific criteria can be met. This should reduce the number of fossil fuel plants and industrial GHG emissions entering the atmosphere over time. • For operations that do qualify for a consent renewal, the requirement to prepare a GHG emissions plan will allow operators to plan for their zero-carbon future and incentivise reductions of industrial GHG as they transition. This has significant environmental benefits compared to a 'do nothing' option, particularly in the long term once there are fewer grounds on which to justify consent renewals for fossil fuel process heat. • Short consent durations limit the long term 'locking in' of fossil fuel assets, incentivising a move away from fossil fuels to enable a longer consent timeframe to be granted. This should accelerate the reduction of industrial GHG over time. ***Economic*** • Sending a strong avoidance signal while still allowing industries time to transition will minimise economic impacts as it gives industry the flexibility to decide when to invest in fuel switching and what technology they will choose. This	

	both a time and money perspective for industry and councils. ***Social*** • May be opposed by those sectors of society that are seeking more tangible actions to address the climate crisis ***Cultural*** • There are not expected to be any significant cultural costs from this option • Feedback from the public consultation process will help identify any cultural impacts, and the nature and scale of these	approach avoids a steeper reduction in the future and the associated economic impacts of a sudden transition. • Providing a consent pathway for renewing permits for fossil fuel boilers gives industry operational certainty up until the time they are able to transition to alternative fuels, which is critical for the economic viability of businesses. This ensures a level playing field for industry and does not unduly penalise consent holders that may struggle to transition easily due to availability of fuels, their location or technological barriers. • Potential for increased investment in the renewable electricity and biomass markets as these markets mature in response to increased demand. ***Social*** • Positive response from sectors of society concerned about the impacts of climate change. • Potential for increased employment opportunities in the biomass and electricity markets. ***Cultural*** • There are not expected to be any significant cultural benefits from this option • Feedback from the public consultation process will help identify any cultural impacts, and the nature and scale of these	

	Costs	Benefits	Risk of Acting / Not Acting if there is uncertain or insufficient information
Option 3: Requiring regional councils to review consent conditions for significant industrial GHG emitters with long-term permits to introduce requirements for GHG emission plans and best practice requirements	***Environmental*** • Only reviewing the consents held by significant industrial emitters with longer-term consents means that all consent holders that do not meet the review thresholds will be able to continue to emit industrial GHG unchanged up until their existing permits expire. This will contribute to the accumulation of GHG in the atmosphere and continue to accelerate climate change impacts. ***Economic*** • Consent reviews impose economic costs on both councils and consent holders, both in terms of additional administration and processing work but also in terms of GHG emissions plan preparation and adoption of any best practice requirements suggested by councils as being reasonable • Creates operational uncertainty for industries and could undermine some investment decisions that were made on the basis that a plant would be able to operate under the original conditions of an air permit up until that permit expires. • Additional cost of upskilling consent staff to understand GHG emissions plans and best practice requirements	***Environmental*** • Directing councils to review certain consents provides the opportunity for significant industrial GHG reductions from operations that would otherwise be unaffected by national direction in the short to medium term. It is the only option that focuses on reducing industrial GHG emissions from otherwise legally 'locked-in' assets • Encouraging industry to better account for, manage and reduce their emissions will help meet New Zealand's 2050 target of creating a carbon-zero economy. ***Economic*** • Limiting consent review requirements to significant industrial emitters (e.g. over 20 MW) with longer-term consents (e.g. consents that expire after 2035) means consents will only require review in situations where there is the potential to materially reduce emissions through energy efficiency improvements or fuel switching. These clear thresholds give certainty to smaller operators or those with shorter duration consents that they will not be subject to the consent review process and can continue with business as usual until their consents expire. • Only reviewing the consents of significant industrial GHG emitters helps to reduce workload and costs for regional councils.	

	Costs	Benefits	Risk of Acting / Not Acting if there is uncertain or insufficient information
	and/or engaging additional technical expertise. ***Social*** • N/A ***Cultural*** • There are not expected to be any significant cultural costs from this option • Feedback from the public consultation process will help identify any cultural impacts, and the nature and scale of these	• Some operating costs for businesses may be offset by the introduction of new, more efficient technology. ***Social*** • Businesses engaging positively with the industrial GHG emissions and best practice requirements can reflect positively on businesses and can be used as marketing • Will support New Zealand's industrial sector to become a world leader in energy and GHG emissions efficiency. This increases New Zealand's social capital and standing on an international scale. ***Cultural*** • There are not expected to be any significant cultural benefits from this option • Feedback from the public consultation process will help identify any cultural impacts, and the nature and scale of these	
<u>Effectiveness and efficiency</u>	***Effectiveness*** • The combination of Options 1-3 provides a clear pathway for industry to transition while managing short-term economic and social impacts, particularly in the case of coal-assets with a firm phase out date. • Short consent durations and a hard phase out date for coal-fired assets will be effective in preventing the long term 'locking in' of	***Efficiency*** • A firm phase out date for coal assets is an efficient approach as it sets a clear and easily understood target for industry. Both councils and businesses will have sufficient time to plan for this date and will be able to make informed investment decisions over the transition period, which will result in an efficient use of resources.	

	Costs	Benefits	Risk of Acting / Not Acting if there is uncertain or insufficient information
	industrial fossil fuel assets and providing a strong incentive for industries to bring forward plans to transition to alternative fuels. • Policy options 2 and 3 allow for some council discretion when making decisions on whether consents should be renewed and for how long they should be granted for. This will be an effective approach for businesses facing significant barriers to transition (particularly in cases where technological solutions are not yet available) as it will allow for continued operation while regularly reviewing options for emissions reductions. • Unable to impact existing consents for industrial coal-fired assets with long consent durations past 2037 – consent holders with long term consent durations will essentially be unaffected by new provisions (unless they are subject to section 128 reviews) until their consents expire, making the national direction less effective. • There is a risk that industry can easily argue that there are no practical alternatives to fossil fuels (other than coal), which will limit the effectiveness of Option 2 to reduce emissions. <u>Consent reviews</u> • Consent reviews for significant emitters with long duration consents is the only way to reduce industrial GHG emissions from these sources prior to their consents expiring. Consent reviews are an effective way to ensure larger emitters take practical steps to reduce their industrial GHG emissions (e.g. through process improvements to increase energy efficiency) while ensuring the operation remains viable.	• Granting consents with short durations during the transition period are inefficient from a resource perspective – more resources will be required to grant interim consent applications for permitted activities and expiring activities prior to 2037, plus additional consents for upgraded, fuel-switched plants post 2037. • Options 2 and 3 have the potential to create regulatory uncertainty for industry through consenting (and reconsenting) processes, particularly for industries that are seeking to renew consents for fossil fuel plants (other than coal) by relying on the specified exemptions. This may result in inefficient decisions made about fuel and technology investment decisions. However, this risk is likely to reduce over time as the strong avoidance policy, combined with improving fuel and technology options, better supports industry transitioning to alternative fuels. • Using national direction to clarify how industrial GHG emissions from existing assets will either be avoided or reduced over time, which avoids the need for councils to undertake plan changes to introduce their own provisions. This is an efficient approach from a time, cost and consistency perspective. <u>Consent reviews</u> • Consent reviews could be viewed as inefficient as they are revisiting a consent decision ahead of the timeframe when it was next set to be reviewed. However, section 128 of the RMA anticipates consent reviews as a legitimate way to address the introduction of new national environmental standards and it is the only mechanism available to alter the content of existing consents prior to their expiration date. • Increased potential for litigation if operators disagree with suggested GHG emissions plan content or best practice requirements conditions, particularly if these requirements are

	Costs	Benefits	Risk of Acting / Not Acting if there is uncertain or insufficient information
			imposed as part of a consent condition review as opposed to through a new or renewed consenting process. • The imposition of thresholds that trigger the need for a consent review (e.g. plants over a certain emissions threshold or recently granted consents with long durations) ensures that not all existing consent holders will be subject to a review. This is efficient as councils are not required to review all industrial air discharge consents, only those that have potential for large efficiency gains or significant reductions in GHG.
Overall evaluation	On balance these options are considered to be the most appropriate to achieve the objectives because: • The three policy options combined focus the most stringent requirements on the most emission-intensive fuel (coal), while still providing a pathway for all other existing industrial plants that use fossil fuels to transition towards alternatives • The policy options strike a balance between achieving significant industrial GHG emissions reductions in the process heat sector from the businesses that are in the best position to make the transition to alternative fuels, while allowing flexibility for those businesses that face serious barriers to transitioning (e.g. tightly integrated, high heat plants that have few or no technological alternatives to fossil fuels) • The risks of not acting are greater than the risks of acting as urgent action is required to reduce the impact of climate change on the environment, communities and the economy and to meet national and international GHG reduction targets.		

Table 13: Assessment of preferred options – GHG emissions plans and best practice requirements

	Costs	Benefits	Risk of Acting / Not Acting if there is uncertain or insufficient information
Option 1: Apply requirements for GHG emissions plan and best practices through consenting processes	***Environmental*** • Best practice requirements or GHG emissions plans that encourage fuel switching of industrial activities to biomass may have other unintended consequences, e.g. air quality impacts due to increased particulate discharges • Applying thresholds for the	***Environmental*** • There are significant environmental benefits that could be achieved by implementing GHG emissions plan and best practice requirements compared to the 'do nothing' option • Encouraging industry to better account for, manage and reduce their emissions	• The risk of not acting is that New Zealand will fail to meet international climate change obligations and domestic emission reduction targets and that the adverse impacts of climate change on the environment and communities increases • There may be uncertain information with

	implementation of best practice requirements and/or GHG emissions plans means that certain industrial operations will be exempt from the requirements. While these exemptions are small-scale, they are cumulatively contributing to climate change effects. ***Economic*** • Costs for industry to prepare GHG emissions plan and comply with best practice standards (potentially offset to some degree by energy efficiency improvements). • Assessing GHG emissions plans and/or best practice requirements through consenting process imposes administrative costs on regional councils. • Additional cost of upskilling consent staff to understand GHG emissions plans and best practice requirements and/or engaging additional technical expertise. • Cost for central government to develop best practice standards/BAT. ***Social*** • There are not expected to be any significant social costs from this option • Feedback from the public consultation process will help identify any cultural impacts, and the nature and scale of these	will help meet New Zealand's 2050 target of creating a carbon-zero economy • Will ensure all existing and new industrial sites/equipment prepare GHG emissions plans to transition to best practice over time, which will provide a more level playing field based on industry best practice • Incentivises industry to transition ***Economic*** • GHG emissions plans are tailored to the size of the site and whether it is new or existing, which helps to ensure requirements are fit-for-purpose and assist with managing compliance costs • The development of NZ-specific best practices will provide a level of certainty for both applicants and councils as to the standards that need to be met through consenting processes • The flexibility to consider what are technically and economically feasible best practice requirements at the site/equipment level will help to avoid onerous requirements and potential plant closures • Some operating costs for businesses may be offset by the introduction of new, more efficient technology. ***Social*** • Businesses engaging positively with the GHG emissions and best practice requirements can reflect positively on businesses and can be used as part of	respect to the most suitable technological solutions to help some industries transition away from using fossil fuels. In some cases, there are often no technological solutions that enable the use of any other fuel aside from natural gas. However, the risks of not acting on the basis of technological solutions for some businesses not being available are outweighed by the need to transition as many businesses as possible away from fossil fuel use in the shortest period of time.

	Cultural • There are not expected to be any significant cultural costs from this option • Feedback from the public consultation process will help identify any cultural impacts, and the nature and scale of these	marketing approach • Will support New Zealand's industrial sector to become a world leader in energy and industrial GHG emissions efficiency. This increases New Zealand's social capital and standing on an international scale. ***Cultural*** • There are not expected to be any significant cultural benefits from this option • Feedback from the public consultation process will help identify any cultural impacts, and the nature and scale of these	
<u>Effectiveness and efficiency</u>	***Effectiveness*** • Both the GHG emissions plan and applicable best practice standards adopted by businesses can be tailored to the needs of each specific operation. This increases the likelihood that the applied best practice requirements and GHG emissions plan will be effective and result in material reductions in industrial GHG emissions • The GHG emissions plan and best practice requirements provides some flexibility to consider site-specific factors and constraints and to allow for a transition that ensures the operation remains viable. The contents of GHG emission plans can be adapted to	***Efficiency*** • The creation of NZ best practice requirements is efficient as it will provide the process heat sector with a single source of truth for the best approach to reducing their industrial GHG emissions specific for their current technology/industry. It will also be efficient to produce as it will build on existing best practice requirements produced internationally and adapted for the NZ context. • Applying best practice requirements to all stages of the consenting process ensures all existing and new industrial assets transition to best practice requirements over time to provide a	

	reflect the individual circumstances of the business, which makes it an effective and tailored approach to driving change. • Creating New Zealand best practice requirements will be an effective way to achieve material industrial GHG emission reductions in the process heat sector. Best practice requirements such as Best Available Technologies or BAT is a concept used internationally and has been defined as the most effective techniques for preventing or reducing emissions that are technically feasible and economically viable within a particular sector. EECA guidance will support the requirements within national direction and to help both regulators (regional councils) and applicants (industry) understand and assess feasible measures to reduce emissions for different industrial sectors • It may be easy for existing consent holders to argue that best practice requirements are not economically or technically feasible to avoid making any changes. This may undermine the effectiveness of any of the policy options • The flexibility to consider what are technically and economically feasible best practice requirements at the site/equipment level will help to avoid onerous requirements and costs for industry	more level playing field based on industry best practice. • Preparation of support materials such as templates would help to streamline the process to prepare GHG emissions plans, reduce compliance costs for industry, and deliver the desired outcomes in terms of emission reductions. • Management plans, like the proposed GHG emissions plan, are a familiar and well understood tool in the resource management space. The requirement to prepare one (provided sufficient guidance is provided at central government level as to the form and content) should make them relatively easy and efficient to prepare and assess.
Overall evaluation	On balance this is considered to be the most appropriate option because: • GHG emissions plans and best practice requirements are tailored to the size of the site and whether it is new or existing, which helps to ensure requirements are fit-for-purpose to reduce industrial GHG emissions and assist with managing compliance costs • It introduces tools that can be used by both businesses and regulatory authorities to drive material reductions in emissions. These tools will be applied nationwide and supported by central government guidance material such as implementation guides and templates to ensure consistent application. • The risks of not acting are greater than the risks of acting as urgent action is required to reduce the impact of climate change on the environment, communities and the economy and meet national and international GHG reduction targets.	

Conclusion

This draft evaluation has been undertaken in accordance with section 32 of the RMA in order to identify the appropriateness of the proposal to achieve the purpose of the RMA having regard to the effectiveness and efficiency of the policy options to achieve the objectives. This draft section 32 evaluation has been prepared to inform public and stakeholder feedback on the proposal through public consultation.

This draft section 32 concludes that the proposed objectives of the proposal are an appropriate way to achieve the purpose of the RMA and the policy options are an appropriate way to achieve the proposed objectives. However, there are a number of uncertainties about the actual environmental, economic, social and cultural costs and benefits of the proposed policy options, the impacts on industry and the potential distributional impacts of the policy options across workers, sectors, regions and communities. Feedback on these impacts, benefits and costs is being sought through public consultation which will help to refine the overall proposal and policy options. A more detailed assessment of the proposal will then be undertaken following supported by a more detailed cost-benefit analysis. This will then inform Cabinet policy decisions on the proposal and enable the drafting the proposed NPS and NES provisions.