Developing a Regulatory Framework for Offshore Renewable Energy

Second Discussion Document

AUGUST 2023

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

Te Kāwanatanga o Aotearoa
New Zealand Government

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

Ministry of Business, Innovation and Employment (MBIE) Hīkina Whakatutuki – Lifting to make successful

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MORE INFORMATION

Information, examples and answers to your questions about the topics covered here can be found on our website: **www.mbie.govt.nz.**

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Minister's foreword

We need to do things differently if we are to avoid the impacts of climate change. To play our part in limiting global warming to 1.5°C, the Government has committed to reaching net zero for all greenhouse gas emissions (excluding biogenic methane) by 2050.

Reaching this goal will require a substantial and coordinated effort, and a commitment from across government that we are not shy of making. The government is focused on the long-term strategic work of system change to a high performing, low emissions future.

The energy system has a critical role to play. In 2021[i], emissions from energy made up 40 per cent of New Zealand's total gross emissions. Cutting emissions from energy is essential to meeting our international climate commitments and reducing the impacts of climate change.

New Zealand is coming from a strong starting point, with a highly renewable electricity system New Zealanders can be proud of. Compared to many other countries, New Zealand's energy sources are highly reliable, renewable, and affordable. The challenge now is to increase the share of renewable energy, while providing affordability and reliability.

The Government has already made substantial progress in decarbonising the New Zealand energy system, including through the Government Investment in Decarbonising Industry programme, improvements we have underway to speed up consenting for new renewable generation, and the Warmer Kiwi Homes programme to reduce New Zealand's energy use while providing healthier and more efficient homes.

To further this work, I am now releasing a package of consultation papers, each addressing a different challenge in the energy transition.

This paper seeks feedback on the design of a regulatory framework for offshore renewable energy. Offshore renewable energy projects, such as offshore wind, wave and tidal, could be a major part of the transition to a low emission future. The regulatory framework aims to provide an opportunity for government to select the projects that are likely to maximise benefits to New Zealand while also providing potential developers with the certainty they need to invest.

I am committed to working with iwi and hapū to enable meaningful involvement in the policy design and operation of the regulatory regime, and in the benefits of development. I have directed officials to work in close collaboration with iwi and hapū on this.

This paper forms one part of a package of papers to progress New Zealand to the next phase of our energy transition.

Hon Dr Megan Woods
Minister of Energy and Resources

[i] New Zealand's Greenhouse Gas Inventory 1990–2021 snapshot: https://environment.govt.nz/publications/new-zealands-greenhouse-gas-inventory-19902021-snapshot/#new-zealands-gross-and-net-emissions

Executive summary

The Government has committed to reaching net zero for long-lived gases by 2050 and has set a target that 50 per cent of total energy consumption will come from renewable sources by 2035. The Government has also articulated an aspirational target of 100 per cent renewable electricity by 2030, to be reviewed in 2024. Offshore renewable energy generation could play a significant role in this energy transition and become a major part of Aotearoa New Zealand's future energy mix.

In May 2022 the Government's first Emissions Reduction Plan committed to developing regulatory settings by 2024, to enable investment in offshore renewable energy. This work has been progressing at pace beginning with the release, in December 2022, of a first discussion document *Enabling Investment in Offshore Renewable Energy*, which focused on the feasibility stage of offshore renewable energy projects.[1]

Taking on board feedback from that first consultation, the Government has taken in principle decisions to proceed with a feasibility permitting approach. The feasibility permits will have a maximum duration of seven years, will be subject to 'use it or lose it' provisions, and will be granted based on a defined list of assessment criteria. Importantly, feasibility permits will provide an exclusive right for the holder to apply for a commercial permit to construct and operate offshore renewable energy infrastructure.

This document looks beyond feasibility and focuses on the design of regulation for the remaining stages of the project lifecycle: construction, operation and decommissioning. Diagram 1 summarises the different components of the regime and indicates which chapters they are covered in.

Diagram 1: summary of content

Chapter 1: Purpose of this consultation

WHY ARE WE CONSULTING?

The Government's first Emissions Reduction Plan committed to developing regulatory settings by 2024 to enable investment in offshore renewable energy.

Offshore renewable energy refers to any type of infrastructure placed in or on the sea that generates energy from wind, ocean currents, light or heat from the sun, rain and geothermal heat. These sources are abundant, natural and clean.

Offshore renewable energy could contribute to our energy transition but will involve large scale, complex, multi-year infrastructure projects that can be of local and national significance. We think it is appropriate to seek a range of stakeholder views on the development of regulatory proposals.

The scope of this discussion document

There are generally four broad stages to offshore renewable energy infrastructure developments: feasibility, construction, operation and maintenance, and decommissioning.

In December 2022 we published a discussion document focused on options to enable the first, feasibility stage of the pipeline. Following this consultation, the Government has taken some in principle decisions on the design of this part of the regime.

This document:

- sets out some further, detailed considerations relating to feasibility
- introduces regulatory proposals and options for the remaining stages of project lifecycles: construction, operation and maintenance, and decommissioning.

While the proposals in this discussion document apply to all offshore renewable energy generation, we specifically use the example of offshore wind. This is because this technology is the most advanced and experienced developers have expressed interest in establishing offshore wind energy in New Zealand's waters.

This document outlines the government's current policy analysis for the purpose of testing with stakeholders; it does not represent final government policy.

Our engagement with our Treaty of Waitangi partner

To inform this discussion document, the government has conducted engagement with some iwi from the regions that offshore wind energy developers are currently exploring, namely Waikato, Taranaki and Southland. Chapter 7 reflects insights from these conversations and written feedback on our December 2022 consultation.

This engagement will continue through public consultation on this discussion document and be ongoing.

HAVE YOUR SAY

You have an opportunity to tell us what you think of the proposals by providing feedback on the matters raised in this discussion document. You are welcome to make submissions on some or all of the discussion questions set out in this document, and/or to raise any other relevant points.

The Ministry of Business, Innovation and Employment (MBIE) invites written comments on the proposals in this document by 5pm, Thursday 02 November 2023.

You can make a submission by:

- completing the survey on the MBIE website (recommended for shorter submissions only)
- emailing your submission to offshorerenewables@mbie.govt.nz
- mailing your submission to:

  Energy Resources Markets Branch

  Ministry of Business, Innovation and Employment

  15 Stout Street

  PO Box 1473, Wellington 6140

  Attention: Offshore Renewable Energy Submissions

If you are emailing or mailing us your submission, please use the submission template provided on the MBIE website. This will help us to collate submissions and ensure that your views are fully considered. Please include your name and (if applicable) the name of your organisation in your submission. We encourage you to provide relevant facts, figures, data, examples and documents where possible to support your views.

Please direct any questions that you have in relation to the submissions process to: offshorerenewables@mbie.govt.nz.

PRIVACY STATEMENT - USE AND RELEASE OF INFORMATION

The information provided in submissions will be used to inform government policy development process and will inform advice to Ministers. MBIE intends to upload copies of submissions received to MBIE's website at www.mbie.govt.nz. MBIE will consider you to have consented to uploading by making a submission unless you clearly specify otherwise in your submission. If your submission contains any information that is confidential or you otherwise wish us not to publish, please:

- indicate this on the front of the submission, with any confidential information clearly marked within the text
- provide a separate version excluding the relevant information for publication on our website.

Submissions may be the subject of requests for information under the Official Information Act 1982 (OIA). Please set out clearly if you object to the release of any information in the submission, and in particular, which part (or parts) you consider should be withheld (with reference to the relevant section of the OIA). MBIE will take your views into account when responding to requests under the OIA. Any decision to withhold information requested under the OIA can be reviewed by the Ombudsman.

The Privacy Act 2020 applies to submissions and survey responses. Any personal information you supply to MBIE in your submissions will only be used for the purpose of assisting in the development of policy advice in relation to this work programme. If you do not wish for your name, or any other personal information to be included in any summary of submissions that MBIE may publish, please clearly indicate this in the cover letter or email accompanying your submission. We may share this information with other government agencies, in line with the Privacy Act or as otherwise required or permitted by law. This information will be held by MBIE. You have a right to ask for a copy of any personal information we hold about you as a result of this survey, and to ask for it to be corrected if you think it is wrong. If you would like to ask for a copy of your information, or to have it corrected, please contact us at offshorerenewables@mbie.govt.nz.

WHAT HAPPENS NEXT

MBIE will analyse all submissions received and then report back to the Minister of Energy and Resources on the feedback, with recommendations for the Minister's consideration.

This process will be used to inform policy decisions that will form the basis of bespoke offshore renewable energy legislation to be developed in 2024.

Your submission will help inform this process and the development of a responsible offshore renewable energy industry in New Zealand.

Chapter 2: Context

OFFSHORE RENEWABLES COULD CONTRIBUTE TO OUR CLIMATE CHANGE GOALS

New Zealand needs a highly renewable, sustainable, and efficient energy system that is accessible and affordable, secure and reliable, and supports New Zealanders' wellbeing. The Government has committed to reaching net zero emissions for long-lived gases by 2050, set a target that 50 per cent of total final energy consumption will come from renewable sources by 2035, and has an aspirational target of 100 per cent renewable electricity by 2030.

Reducing our reliance on fossil fuels and moving towards greater levels of renewable energy and other low emissions alternatives will increase demand for electricity over the coming decades. The magnitude and timing of the increase is uncertain, but Transpower has forecast a 68 per cent increase in electricity generation is needed to meet demand by 2050.[2] Similarly, MBIE analysis projects that electricity demand could grow between 18 and 78 per cent between 2018 and 2050 across five different scenarios assuming different levels of economic growth, technological progress and policy changes.[3] Offshore renewables can contribute to this increased demand for electricity, providing a more stable source of renewable energy, for more constant and predictable generation.

Offshore renewable energy projects can also generate economic benefits by creating jobs to support the manufacture, construction and operation of infrastructure.

NEW ZEALAND HAS WORLD CLASS OFFSHORE WIND RESOURCES

As set out in Chapter 1, while the proposals in this discussion document apply to all offshore renewable energy generation, we specifically use the example of offshore wind. This is because this technology is the most advanced and experienced developers have expressed interest in establishing offshore wind energy in New Zealand's waters.

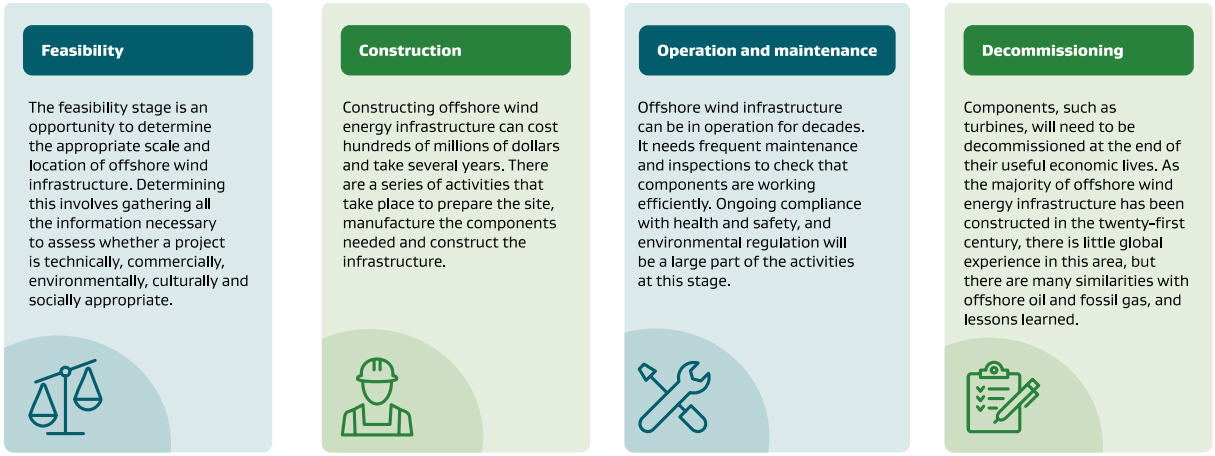
New Zealand is optimally located for offshore wind development in terms of its high quality wind resources and characteristics such as shallow water depth. Analysis by the Global Wind Energy Council and early developer interest indicates that this potential may be focused in a few different locations including Taranaki, Waikato and Southland.[4]

Similarly, we understand other offshore renewable energy technologies could be viable in other regions. In developing any potential regulatory settings, we want to ensure new technologies could enter the New Zealand market and be appropriately managed.

THE LIFECYCLE OF AN OFFSHORE RENEWABLE ENERGY PROJECT

Offshore renewable energy projects are long-term propositions. Using the example of wind, infrastructure takes a decade to establish and can remain in operation for thirty years or longer. As set out in the December 2022 discussion document, the four major stages in the lifecycle of an offshore wind project are feasibility, construction, operation and maintenance, and decommissioning. Diagram 2 on the next page provides an explanation of each stage.

Diagram 2: Stages of an offshore renewable energy project



WE CONSULTED IN DECEMBER 2022 ON OPTIONS FOR ENABLING FEASIBILITY

In December 2022, we published a discussion document on offshore renewable energy *Enabling Investment in Offshore Renewable Energy*. That document:

- Made the case for government intervention to enable offshore renewable energy feasibility activity and to manage early developer interest. The case for change centered around limitations within existing environmental consenting processes. These processes do not enable comparisons between different offshore renewable energy proposals, do not allow for consideration of whether development is in New Zealand's national interest, and do not give prospective developers the certainty they need to invest.
- Considered a spectrum of approaches for enabling feasibility involving varying levels of government involvement. The document ultimately proposed a developer-led approach. This is because the time required for a potential government-led planning exercise could delay and potentially undermine the ability of offshore renewable energy to contribute to important emission reduction goals.
- Evaluated two options to implement a developer-led approach: a permitting model and a collaborative model. The document suggested there could be a strong case for a permitting model as it could improve investor confidence, give government the opportunity to select the developer and the development, provide for Māori participation, and lead to timely and efficient development.
- Emphasised the importance of involving iwi and hapū in feasibility and set out potential requirements for developers during the application and feasibility stages to facilitate this.
- Put forward some potential design features of the feasibility permit, including assessment criteria, duration and reporting obligations.
- Set out our initial understanding of existing uses, interests and values in the Territorial Sea and Exclusive Economic Zone (EEZ) and sought to gather information of these interests and how they might interact with offshore renewable energy projects.

We received 59 responses to this consultation and have published a summary of responses alongside this discussion document on our website.

DECISIONS REGARDING FEASIBILITY

The Government has taken the following in principle decisions to manage the feasibility stage of offshore renewable energy development:

- The creation of feasibility permits, providing an exclusive right for the holder to apply for a commercial permit to construct and operate offshore renewable energy infrastructure.
- A feasibility permit duration of seven years (subject to 'use it or lose it' provisions).
- That feasibility permits to be granted based on the following criteria:
    - financial, technical and commercial capability
    - iwi and hapū involvement prior and during feasibility
    - indicative electricity system impacts
    - indicative economic development opportunities
    - indicative decommissioning capability
    - health and safety capability
    - national interest considerations.
- Where applications for feasibility permits overlap, applicants will be encouraged to resolve the overlap between them. Where necessary, the area of overlap will be granted to the applicant with the stronger application based on the feasibility permit criteria.

KEY CHANGES FOLLOWING CONSULTATION FEEDBACK

In this section we briefly summarise some of the key changes we have made to the feasibility permit design based on consultation feedback from the December 2022 discussion document.

Feasibility permit duration

The December 2022 discussion document proposed a maximum feasibility permit duration of five years. While a minority of submitters supported this duration most feedback suggested that a longer duration might be necessary.

In determining the maximum duration of a permit, we want to encourage timely development so that offshore renewables can start contributing to the energy transition. However, this needs to be balanced against allowing sufficient time for good quality feasibility studies to thoroughly understand environmental and other impacts, and to progress sufficient engagement with iwi and hapū and relevant stakeholders.

In the context of New Zealand being a new market for offshore renewable projects, with relatively low levels of baseline environmental data, the Government has taken the in principle decision to increase the maximum feasibility permit duration to seven years. Nevertheless, we emphasise this is a maximum duration, and the onus will be on the developer to justify the length of permit duration requested in their application. This is also consistent with the maximum feasibility licence duration within the Australian offshore renewable energy regime.

Further, as described in the December 2022 discussion document, to mitigate the risk of any land banking behaviour, feasibility permits would be subject to detailed and enforceable 'use it or lose it' provisions. Permits would need to be exercised within 12 months and if a developer is not actively progressing feasibility work and making progress against key milestones, they will risk losing their permit. To support these provisions, feasibility permit holders would be required to report regularly on their progress.

Feasibility permit criteria

We have retained the proposed feasibility assessment criteria set out the December 2022 discussion document based on broad support for these in the consultation. However, we have added four additional criteria: indicative electricity system impacts, indicative economic development opportunities, indicative decommissioning capability and health and safety capability. These additions reflect the gaps identified by the balance of consultation feedback, align with broader Government priorities, and mirror the commercial assessment criteria set out in Chapter 5.

Clearly, at the feasibility application stage, factors such as electricity system impacts, decommissioning plans and economic development opportunities will not be fully known, hence the 'indicative' caveats. However, given that feasibility is the primary point in the overall permitting process at which projects will be compared, and most overlaps resolved, we consider it appropriate for the assessment to consider all the outcomes that government has an interest in. This is also an opportunity to incentivise developers to embed key outcomes into projects right from the start. Application guidance could clearly set out expectations in relation to these criteria which would reflect the stage of development of the project.

We remain interested in enabling opportunities for collaboration

While the Government has agreed, in principle, to proceed with a permitting approach, we recognise there are significant benefits to, and opportunities for, collaboration on feasibility studies. Specific examples where submitters on the December 2022 discussion document called for collaboration are environmental monitoring data, understanding cultural impacts, understanding iwi and hapū interests, and planning for transmission infrastructure. Submitters felt that collaboration could enable the sharing of resources and experts to undertake these studies on an area-wide basis. Some submitters preferred a multi-stakeholder approach to ensure studies are conducted in a transparent and inclusive manner.

Outside of this consultation process, which focuses on the development of a regulatory regime, MBIE is working closely with the Department of Conservation, Ministry for the Environment, the Environmental Protection Authority (EPA) and other relevant agencies to consider how collaboration on matters such as environmental data collection could be organised and facilitated.

Relatedly, although our December 2022 discussion document set out a near-term preferred option of a developer-led approach, we also indicated that a government-led, more spatially planned approach could be preferable in the longer term. Consultation feedback supported this view. However, whilst there is an opportunity to consider a move to a more spatially planned approach in the future, our view remains that we should not delay a first wave of development in order to conduct such an exercise, which would be complex and take a significant amount of time. We see the collaborative environmental data collection exercise described above to be one of the first foundational steps to potentially enabling a more planned approach in the longer term.

WE ARE NOW FOCUSING ON THE DEVELOPMENT OF THE FULL REGIME

With some in principle decisions taken on feasibility, we are turning our attention to the development of the rest of the regulatory regime. This will include considerations for the construction, operation and decommissioning stages of the offshore renewable project lifecycle.

We think it is important to look at the regime holistically, therefore the remainder of this document will set out some further detail on feasibility and introduce our early considerations and options for the rest of the regime and seek stakeholder views on this.

POLICY OBJECTIVES

Our policy objectives for the design of the full offshore renewables regulatory regime, which incorporates feedback from our December 2022 discussion document, are:

- enable the selection and management of developments to meet New Zealand's national interests, while recognising existing environmental protections
- enable Māori participation in a regime that recognises the Crown's responsibility to give effect to the principles of Te Tiriti o Waitangi / the Treaty of Waitangi
- enable New Zealand to access offshore renewable energy technology in a timely way by providing developers with greater certainty to support investment.

OUR WORK IS BEING DEVELOPED IN CONJUNCTION WITH A PACKAGE OF WORK TO PROGRESS THE NEXT PHASE OF NEW ZEALAND'S ENERGY TRANSITION

Alongside our work on offshore renewable energy regulation the Government is progressing a range of work to support the energy transition. The overarching workstream is the New Zealand Energy Strategy which is due to be released in late 2024. The Strategy will take a whole of energy system perspective and seek to balance our objectives of decarbonising the energy system at pace, maintaining security and reliability, improving affordability, and supporting growth and productivity.

Alongside this discussion document on offshore renewables, the government has also released the following documents for public consultation:

- *Gas Transition Plan Issues Paper:* seeks views on the key challenges and opportunities for the fossil gas sector to transition to a future of low carbon emissions.
- *Interim Hydrogen Roadmap*: presents the Government's current thinking on the role of hydrogen in New Zealand's clean energy transition. The Interim Roadmap is intended to provide certainty to prospective investors while we finalise the Roadmap alongside the Energy Strategy in 2024.
- *Measures for Transition to an Expanded and Highly Renewable Electricity System*: considers electricity market measures that will support the transition to a renewable electricity system. This paper is accompanied by a separate thermal baseload paper which provides an opportunity for final feedback on design and implementation of the ERP action to ban new fossil fuel baseload electricity generation.

For further detail on the package of energy consultation documents, along with how they link together, please visit the MBIE website.

Chapter 3: The Overall Permitting Process

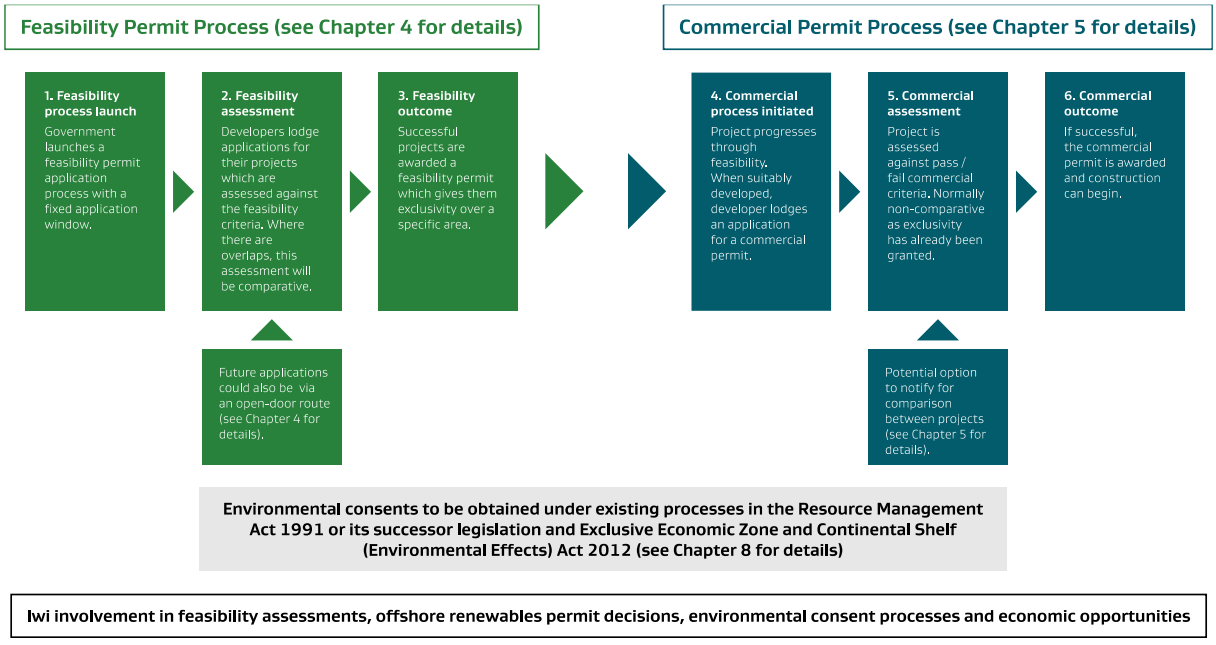
The December 2022 discussion document described a feasibility permit process as a route to enabling feasibility activity for offshore renewable energy projects in New Zealand. As set out in the previous chapter, the Government has confirmed this option in principle.

The feasibility permit will enable feasibility activities by providing a sole right to apply for a subsequent commercial permit. This sole right to apply would be a mechanism to grant the developer a form of exclusivity for a specified period of time over the area specified in the permit.

In this second discussion document we propose to create a regime that would require a commercial permit in order to construct and operate offshore renewable energy infrastructure. The commercial permit would apply to a given location and it would not be possible to obtain such a permit without first obtaining a feasibility permit for the same area.

Diagram 3 below sets out a high-level representation of the overall permitting process including the proposed flow of feasibility to commercial permits. Further detail on the feasibility process, building on the content set out in our December 2022 discussion document, is included in Chapter 4. Further detail on the commercial permit and process is included in Chapter 5.

Diagram 3: The flow of feasibility to commercial permits



Chapter 4: Further Detail on Feasibility Permits

As set out in Chapter 2 the Government has taken in principle decisions on the creation of an offshore renewable energy feasibility permitting scheme. Building on these decisions and the content raised in our December 2022 discussion document, this chapter sets out some further considerations as to the detailed design of the feasibility part of the regime.

THE FEASIBILITY PERMIT ALLOCATION PROCESS

As set out in the December 2022 discussion document, under a permitting approach developers would apply for a feasibility permit. There are different ways to structure the process to award these feasibility permits. Two examples are:

- **Set application rounds** – government would launch a process by putting out a call for applications.
- **Open-door approach** – government would allow applications by developers at any time. These could be publicly notified to give alternative projects an opportunity to submit applications for comparison.

We are aware that there are already developers interested in certain sites within and around New Zealand. Given these overlapping interests we think it would be sensible for government to structure early assessments by launching an application round with a fixed application window. In line with the approach set out December 2022 discussion document it is not intended that initial rounds would be limited to specific locations, but there could be an option to do this in the future.

Beyond the initial round, we think there could be benefit in the legislative regime allowing for both types of application processes set out above. The ability for the regulator to periodically take decisions to launch subsequent rounds could help to structure future developer interest at times when there are multiple developers interested in similar sites. The act of advertising a round may also increase interest and encourage participation and competition.

However, outside of these rounds there may be merit in allowing developers to progress a feasibility application through an open-door process. This would prevent developers having to wait for application rounds and reduce the administrative burden on government, particularly at times when interest might be limited. Such applications could be notified to give other developers the opportunity to contest the application. If contested, this would trigger a comparative process.

Our preferred option is to run an initial feasibility round and then have both an open-door process and the option for the regulator to launch subsequent rounds in the future.

Questions for consultation

1. Following an initial feasibility permit application round, should there be both an open-door policy and the ability for government to run subsequent rounds? If not, why not?

AREA TO BE COVERED BY THE FEASIBILITY PERMIT

In our December 2022 discussion document, we indicated that there would need to be some form of mechanism to limit the area covered by feasibility permits. This is important as the sites with optimum conditions for offshore renewable energy development in New Zealand are finite. We need to be able to ensure that developers do not, either intentionally or inadvertently, lock up this space to prevent it being used by other developers.

Beyond this, New Zealand also has a relatively small electricity market when compared with many other countries that have offshore renewable energy (the current capacity of the electricity system is 10GW)[5]. There could be risks associated with a single large development taking up a material proportion of this capacity compared to the benefits of having multiple smaller developments in progress to drive competitive tension.

However, we are also conscious that this needs to be balanced against the fact that larger projects may benefit from economies of scale and may find it easier to access international supply chains. This could drive down costs and improve delivery timelines – both important outcomes for New Zealand.

We think that there are two potential approaches.

Option 1: set a fixed, maximum limit on the area of a feasibility permit

Government would set a fixed spatial limit for feasibility permit applications. This would be set in square kilometres to reflect the finite space available. Developers would be responsible for translating this into units of generation.

The main advantage of this approach is that it would provide clarity to developers to plan their projects and make their applications.

However, a risk with this approach is that it may be challenging to get the limit exactly right in advance. If the limit is set too high, it would allow scope for land banking behaviour or the under-utilisation of space. If set too low it could risk adversely impacting project economics or access to supply chains. Furthermore, we also perceive a risk that, if there is a fixed limit, there may be a tendency for developers to move towards the upper bound which could have a negative, distortive impact on proposals.

Option 2: developers put forward proposals; regulators assess for reasonableness

Developers would have flexibility to choose the size of a proposed development in their application that indicates a clear application area. The regulator would then assess the ability of the developer to be able to deliver the full project and whether a development of such size would be likely to be in the national interest. Only projects that meet all criteria for the full area of the proposal would be taken forward.

One advantage of this approach is that it would allow the regulator to take a more informed decision on the appropriate scale and size of a development (i.e. once equipped with the benefit of project-specific information). Another advantage is that it would avoid a risk of an arbitrary limit negatively impacting project economics or access to supply chains.

It would, however, offer less clarity to developers than Option 1.

We think Option 2 has the potential to result in better outcomes, but we are interested in stakeholder views. Within this option government could also publish non-binding guidance to support developers to understand the scale of development that government considers likely to be appropriate for New Zealand's energy needs.

Content of guidance

New Zealand's Energy Strategy will be delivered in 2024 and will help inform the development of any future guidance on the preferred scale of offshore renewable energy developments. However, at this early stage, based on the size of the New Zealand electricity system and expected electricity needs we consider that projects of between 500MW and 1GW could be most appropriate.

In terms of translating this guidance into spatial terms we understand from international comparisons that a 1GW development might approximately equate to between 150 to 250 square kilometres, depending on geographical conditions. Any guidance could therefore suggest that permit applications should be within 250 square kilometre contiguous blocks while giving the regulator the flexibility to consider deviations from this where there is a clear case to do so. Government may wish to change this guidance from time to time as New Zealand's electricity needs change.

We do not think it would be appropriate for developers to apply for two permits side-by-side or in the same area at the same time as this would be a clear contravention of the intent of the indicative limits. However, it might be appropriate for the guidance to enable developers to apply for multiple developments in clearly different locations (e.g. one application in Taranaki and one application in Southland). Whether to grant both permits could be at the discretion of the regulator.

Questions for consultation

2. What size of offshore renewable energy projects do you think are appropriate for a New Zealand context?
3. Do you think the maximum size of a project should be put forward by developers and set out in guidance material, rather than prescribed in legislation? If not, why not?

CHAPTER 4 CONSULTATION QUESTIONS

In this chapter, we asked the following questions:

- Question 1: Following an initial feasibility permit application round, should there be both an open-door policy and the ability for government to run subsequent rounds? If not, why not?
- Question 2: What size of offshore renewable energy projects do you think are appropriate for a New Zealand context?
- Question 3: Do you think the maximum size of a project should be put forward by developers and set out in guidance material, rather than prescribed in legislation? If not, why not?

Chapter 5: Commercial Permits

As outlined in Chapter 3, we propose that a commercial permit would be required in order to construct and operate renewable energy infrastructure.

The commercial assessment will be initiated by the developer

As outlined in Chapter 4 a feasibility permit will give the holder an exclusive right to apply for a commercial permit over a specified time and area. In order to facilitate this, government will have already resolved any direct geographic overlaps. As a result, unlike for feasibility permits, we do not think that it makes sense to run application rounds to allocate commercial permits as it will not generally be necessary to compare developments.

Instead, our proposed approach is that the commercial permit assessment should be triggered by the developer when the developer considers that they have reached an appropriate stage of readiness. Further detail on what we mean by readiness is outlined later in this chapter under the criteria section. Allowing the commercial assessment process to be initiated by the developer would minimise the risk of disruption to natural project timelines which in turn will support investment certainty and timely development to contribute to our renewable commitments.

However, while the onus will be on the developer to initiate the commercial process, if the developer does not proceed to do this per their agreed feasibility plan, the developer would risk losing their feasibility permit, therefore allowing the associated space to be released. This is in line with the concept of 'use it or lose it' provisions described in Chapter 2 of this document and in our December 2022 discussion document.

There could be benefit in being able to compare developments in some scenarios

While we do not think it is appropriate at the commercial stage to hold projects up for fixed allocation rounds, we are cognisant of a potential downside created by this approach.

Although spatial overlaps would have been resolved at the feasibility stage, there could potentially be other, non-spatial, reasons that mean two projects cannot progress concurrently. The main example of this is likely to be grid capacity at a particular location, but there may be additional examples such as ports or other infrastructure, or even the duplication of customers or demand.

This has the potential to be problematic if two projects are progressing feasibility side-by-side on similar timeframes. For example, consider an illustrative scenario in which one project (Project A) reaches commercial readiness and lodges a commercial permit application a number of months before the second project (Project B). Project A and Project B do not overlap in space but are planning to utilise the same limited grid connection. If assessed, both projects would meet the threshold needed to obtain a permit, but if compared, Project B would perform better than Project A.

In this situation there would be no mechanism to be able to compare the two projects; provided relevant conditions were met, Project A would be granted the permit and Project B would not, meaning that New Zealand might miss out on the benefit of the 'better' project. We therefore think it is important to consider the trade-offs between two options, which we set out below.

Option 1: developer initiated; non-comparative process

The developer would initiate the commercial assessment by lodging a commercial permit application. The application would be assessed and the project would only be granted a commercial permit if all assessment criteria had been met. Importantly, there would be no mechanism to compare projects against one another.

The advantages of this approach are:

- **Timelines –** results in the least disruption to natural project timelines which could result in development occurring sooner, allowing offshore renewables to potentially make an earlier contribution to New Zealand's renewable energy commitments.
- **Improved investor certainty –** avoids disruption to project timelines which may improve attractiveness of the regime to developers by improving developer and investor certainty.
- **Projects would still face a robust assessment –** even if not compared to other projects, all projects would still have to meet a robust assessment against the criteria described later in this chapter.

Option 2: developer-initiated, with an option to compare

The developer would apply for a commercial permit which would be publicly notified and any other developers progressing feasibility in a similar location would have a time limited opportunity to make their own application. The decision maker could then have the option to pause the assessment of the first application to compare both applications side-by-side. If both projects passed the criteria, but cannot both proceed because of a constraint, the project with the best performance against the assessment criteria could be taken forward. Time limits for this process would be included in legislation.

The advantages of this approach are:

- **More opportunity to ensure the best projects are taken forward** – providing an opportunity to compare projects means it is more likely that higher performing projects, against the criteria, would be progressed.
- **Would only be utilised in specific circumstances** – the design of this option means that projects would only be slowed down for comparison in specific circumstances in which there was merit in doing so (where two projects are ready at a similar time but are unlikely to be able to progress concurrently). Depending on how development progresses, it is possible that such a mechanism would not need to be utilised.
- **Mechanism to limit impact on project timelines** – the time limits or pause in the assessment could be kept relatively short so as to minimise disruption to development timelines. In setting these limits government would want to carefully balance disrupting project timeframes against allowing opportunities for comparison.

Another way around this issue would be resolve all these considerations when assessing feasibility permit applications. This would involve resolving both direct geographic overlaps and any other potential reasons why two projects might not be able to go ahead side-by-side at the same time. We do not consider this to be a sensible approach for two reasons. Firstly, there will be a limit to the quality of any comparative assessment at the feasibility stage as projects will, inherently, not be very

developed. As a result, we would not want to narrow down projects any more than is necessary to allow feasibility to continue. Secondly, these broader overlaps will potentially get resolved over the course of feasibility (e.g. through investment in additional infrastructure or developers deciding not to proceed past feasibility).

On balance, our preferred option is Option 2, in which the developer initiates the commercial assessment but with a time limited period for other projects to submit an application for comparison.

Questions for consultation

4. Should there be a mechanism for government to be able to compare projects at the commercial stage in certain circumstances? If yes, would the approach outlined in Option 2 be appropriate or would there be other ways to achieve this same effect?

COMMERCIAL ASSESSMENT CRITERIA

Offshore renewable energy infrastructure would involve large-scale projects, requiring significant investments that could have a material impact on our electricity system. We therefore consider it important that developments face a robust assessment to ensure that the projects progressed maximise the benefit to New Zealand.

While projects will already have been assessed at the feasibility stage, we think that it is important to thoroughly assess projects again at the commercial stage once all feasibility work has been completed. It is only at this stage that we expect the project will be sufficiently mature and developed for government to take a final decision on whether the project should go ahead.

As set out in Chapter 2 the majority of these criteria will build on the criteria considered at the feasibility stage. Internationally, commercial stage assessment processes typically include criteria such as:

- technical and financial capability of the developer
- viability or deliverability of the project
- price-based criteria (e.g. expected per unit cost of the project)
- broader outcome or non-price-based criteria such as environmental impacts, economic development opportunities or innovative technologies.

We propose criteria for the commercial assessment below. Further detail on each of these criteria would be set out in regulations and/or application guidance.

Capability of the developer

Offshore energy generation is technically complex. Government must have confidence that the applicant has the technical capability to install, operate, maintain and decommission offshore renewable infrastructure.

Offshore energy generation is also a high cost and commercially complex operation. Government will need evidence that the applicant has sufficient financial means, commercial sophistication and business planning expertise to progress the development.

Much of this will be a reassessment of the information provided at the feasibility stage, to both confirm that it still applies, and a greater depth of assessment to reflect the greater level of project maturity.

We propose to assess the following factors to determine technical capability:

- relevant experience (e.g. a track record in delivering similar projects)
- a clear management plan for the operational life of the project
- a complete understanding of the complexity of the development, key technical risks and appropriate mitigations
- access to relevant technical expertise.

We propose to assess the following factors to determine financial and commercial capability:

- evidence of a strong financial position
- financing arrangements for the project
- complete risk management strategy with appropriate mitigations
- a clear management plan for the operational life of the project.

Readiness of the project

The commercial permit is intended to be the last step prior to the construction of the infrastructure. Government would therefore expect to see evidence that the project is mature and ready for commercial operation. Considerations we propose to include are:

- financing in place and/or secured conditional on the permit
- well-progressed grid connection plans
- a route to market
- relevant environmental consents in place or in progress (see Chapter 8 for detail)
- the maturity of the project plan.

Iwi and hapū involvement

It will be essential that the developer has engaged iwi and/or hapū throughout the development of their feasibility work and has appropriate plans for involving iwi and/or hapū through the full life of their project. For further detail regarding our considerations on this topic please refer to Chapter 7.

Arrangements for decommissioning

We consider it important that the developer has a plan in place for decommissioning, accompanied by a cost estimate and financial security. For further detail regarding what we suggest might be required please refer to Chapter 10.

Energy system impacts

Offshore renewable energy projects are typically large scale and could be a material addition to the New Zealand energy system. It may therefore be helpful for government to be able to consider the benefits and risks to the electricity system of an application.

We could therefore propose factors such as:

- the volume and location of generation
- transmission plans, costs and where these costs are expected to fall
- any impacts on system resilience
- whether generation is intermittent or comes with a firming solution.

Any criteria will need to ensure that such an assessment does not duplicate existing market functions or processes.

Economic development potential

Offshore renewable energy projects have the potential to create economic benefits both to New Zealand and to the regions in which development occurs. This could be through the creation of high paid, high skilled jobs and/or investment in the local community. We are also conscious of the natural link between some of the potential locations for early offshore renewable energy development and the key Just Transition regions.

We could therefore propose factors such as:

- the jobs the project will create and the wages of these jobs
- community engagement, regeneration and investment
- training and skills development opportunities
- investment in localised supply chains.

There would need to be some mechanism to ensure the commitments made during the permit application materialise. However, this mechanism would also have to balance the fact that not all benefits can be perfectly modelled in advance.

Health and safety credentials

Offshore renewable projects are complex, involving very large components which will, to some extent, be assembled at sea. If not managed correctly, this has the potential to be a very hazardous environment for workers. We consider the health and safety of workers to be of essential importance and therefore suggest that it is appropriate to have a distinct criterion to assess the ability of the developer to deliver the project safely.

This could include factors such as:

- an understanding of New Zealand health and safety legislation and regulation
- the developer's health and safety record (including international record)
- plans to deliver the specific project safely.

We would expect the regulator to work closely with WorkSafe New Zealand and Maritime New Zealand on this criterion.

National interest

Offshore renewable energy infrastructure would be large scale, significant investment in New Zealand. We therefore consider that a commercial permit should only be granted if the development is not contrary to the national interest. As suggested in our December 2022 discussion document, to ease the administrative burden and maintain legislative coherence we propose to align the national interest criterion with the Overseas Investment Act 2005.

This would include considerations like those suggested for the feasibility stage, such as:

- national security, public order and international relations
- competition, market influence and the economy
- alignment with New Zealand's values and interests.

Much of this will be a reassessment of the information provided at the feasibility stage, to both check that it still applies, and a greater depth of assessment to reflect the greater level of project maturity.

It may also be prudent to give the decision maker the flexibility to consider any other matters they consider relevant as part of this criterion.

Permit holders would be expected to continue to meet criteria through the life of their project

We think that it is important that projects continue to meet the standards set by the criteria throughout the life of their project and that developers follow through on the plans that formed the basis of the decision to award the permit. To facilitate this, we propose that developers should have to provide regular reporting on the progress of their development.

This approach should balance:

- Ensuring developers are incentivised to both submit accurate information for assessment and to deliver on the proposals that are set out in their application.
- Recognising that it is not possible to perfectly model all benefits of a project and that some deviation from plans may result in positive change (e.g. the use of the latest innovative technologies or materials). The regime and processes should have the flexibility to accommodate this.
- Avoiding overly onerous reporting requirements that increase the cost of the regime.

We propose to require permit holders to maintain a Management Plan and regularly submit this plan ahead of a regular review meeting with the regulator. These review meetings could, for example, be annual. Failure to meet the Management Plan could lead to changes in the permit conditions and/or enforcement action. We consider the regulator should balance any enforcement action with consideration of the intent, preventability and impact of the deviation.

Questions for consultation

5. Are the proposed criteria appropriate and complete? If not, what are we missing?
6. Should there be mechanisms to ensure developers deliver on the commitments of their application over the life of the project? If yes, what should these mechanisms be?

SIZE OF THE COMMERCIAL PERMIT AREA

We propose that the size of the commercial permit area would be no larger than the size of the feasibility permit area as this is the area that the developer would have gained rights over during the feasibility process. It is also important that the size of the commercial permit should be no larger than is necessary to execute the planned scale of development.

Therefore, we consider that a developer should be able to apply for a commercial permit that is smaller than the feasibility permit area, but still within the same spatial boundaries of their feasibility permit. This would enable space to be released so that it could be available to another developer. The regulator could scale down or reject any commercial permit application with a size that is larger than that necessary to execute the proposed scale of development.

DURATION OF THE COMMERCIAL PERMIT

We consider the maximum duration of a permit should comfortably accommodate the expected life of the infrastructure without being excessively long. The maximum duration should allow for time for refurbishment of the infrastructure and sufficient time for decommissioning to take place once the assets have reached the end of their useful lives.

From international examples we understand that the typical economic life of an offshore wind farm is typically 20-25 years. However, this duration is increasing over time with some wind farms being planned to be operational for up to 35 years, with the potential for this to continue to increase. We would want to avoid a scenario in which our maximum permit duration limited the economic potential of a development.

We propose that 40 years is an appropriate maximum duration for the commercial permit. This would be consistent with other comparable regimes including the duration of a mining permit under the Crown Minerals Act 1991 and the Australian offshore renewables commercial licence under Australia's Offshore Electricity Infrastructure Act 2021.

For the avoidance of doubt, when considering an application and its requested duration, the decision maker would consider the proposals on a case-by-case basis and may consider it appropriate to grant a permit for a shorter period of time. Further, a development would also require relevant environmental consents for this full period (this is covered in more detail in Chapter 8).

Questions for consultation

7. Is 40 years an appropriate maximum commercial permit duration? If not, what would be an appropriate duration?

APPROACH FOR DEALING WITH PHASED PROJECTS

We recognise that developers are likely to plan their projects such that they are constructed in phases spanning multiple years. This might reflect constraints such as supply chain access, limits on the period of acceptable weather conditions for build and/or the capacity of infrastructure such as ports.

We think it could be most appropriate for such developments to be progressed as a single permit application with the phasing clearly outlined within the Management Plan. All phases of work included within the permit would have to meet the assessment criteria. This would avoid a scenario in which developers submit multiple applications which would be administratively burdensome, and therefore costly, for both government and developers.

However, in a scenario in which the development does not progress in full, it will be necessary to have a mechanism to release space that is not used. We think it would be reasonable to expect that developers proactively notify us if the Management Plan changes in this way. Similarly, any change in the phasing timings, within the scope of the overall proposal, would need to be communicated to, and agreed with, the regulator. A failure to notify could result in enforcement action.

APPROACH TO REQUESTS FOR PERMIT EXTENSIONS

Once offshore renewable developments are in operation, developers may want an opportunity to extend their permit in geographic reach and/or duration.

Extensions to permit area

In a scenario in which a developer with an existing operation wishes to expand that operation beyond the geographic reach of the original permit, we need to take a decision whether to treat this as an extension of the original permit or a new permit application.

Where a developer wishes to extend, we consider it important that:

- the regulator has an opportunity to consider these proposals against the same criteria as it would for a new development
- the developer has the same obligation to engage with relevant iwi and/or hapū throughout the feasibility and commercial stages of development as they would for a new permit
- there is an opportunity, where competition exists, for the regulator to compare projects and choose the project that is the best project for New Zealand.

We consider that the best way to achieve the above is to require extensions to the geographic limits of existing developments to be progressed via a new permit application. For the avoidance of doubt this would involve both a feasibility permit application to secure the space (which could either be through an open-door or application round) and a commercial permit application.

If the new, second permit is granted by the regulator (thereby authorising the extension) we think it could be appropriate for there to be a process to consolidate the two permits into a single permit. This would better reflect the substance of the development and be operationally more efficient (e.g. by avoiding duplicative reporting). This process could be triggered through agreement between the regulator and the relevant developer.

Questions for consultation

8. Should a developer that wishes to geographically extend their development be required to lodge new feasibility permit and commercial permit applications? Why or why not?

Extensions to permit duration

Similarly, there may be scenarios in which a developer may want to extend their permit duration. Unlike geographic extensions we do not consider it necessary for such requests to trigger a full feasibility and commercial assessment process. We consider that the regulator should seek comfort that the criteria could still be met but that this could be achieved through a simpler, extension request.

SCOPE OF THE COMMERCIAL PERMIT

Looking at international examples we recognise that there is sometimes a separate permit (or equivalent) for transmission infrastructure and/or research and development projects. We do not currently propose that this is appropriate or necessary in a New Zealand context.

Transmission infrastructure

We propose that transmission infrastructure should be part of the main commercial permit such that the commercial permit allows the holder to construct both the turbines and also the associated transmission infrastructure. We consider this approach to be appropriate given our understanding that transmission infrastructure would not be progressed without generation installation and vice versa. For further detail on transmission-related issues please refer to Chapter 9.

Research and development

Research and development activity is an important part of the development of the offshore renewables sector. It is essential for technological advancements in existing commercial technology (such as fixed bottom offshore wind) as well as the development of new, alternative technologies such as floating wind and solar, wave and tidal. We want to ensure that our regime does not act as a barrier to such activity.

As outlined in our December 2022 discussion document the feasibility permit process has been designed so that all activities to determine feasibility of a project can continue without a permit (although environmental consents may still be required: see Chapter 8). In relation to commercial permits, we think it could be sensible to exempt certain projects (demonstration projects and research and development projects) from requiring a commercial permit. One way to achieve this could be to explicitly state that developments that are not commercial do not require a commercial permit. This definition of 'not commercial' would need to be clearly defined in regulation and/or guidance. We are interested in exploring the extent to which such projects (such as demonstration wave and tidal) can co-exist with larger scale commercial projects such as fixed bottom wind.

Once technologies that are currently at small-scale demonstration stage reach commercial maturity, we think it would be appropriate for them to be subject to the feasibility and commercial permitting process outlined in this document. We intend to design the process, criteria and nature of the

permits to enable different technologies to be compared like for like on their merits. We are interested in feedback on what further adaptations may be required.

We are also interested in hearing more about the importance of research and development in a New Zealand context and what more the Government could be doing to enable this.

Questions for consultation

9. Would the structure of the feasibility and commercial permit process as described enable research and development and demonstration projects to go ahead? If not, why not?

CHAPTER 5 CONSULTATION QUESTIONS

In this chapter, we asked the following questions:

- Question 4: Should there be a mechanism for government to be able to compare projects at the commercial stage in certain circumstances? If yes, would the approach outlined in Option 2 be appropriate or would there be other ways to achieve this same effect?
- Question 5: Are the proposed criteria appropriate and complete? If not, what are we missing?
- Question 6: Should there be mechanisms to ensure developers deliver on the commitments of their application over the life of the project? If yes, what should these mechanisms be?
- Question 7: Is 40 years an appropriate maximum commercial permit duration? If not, what would be an appropriate duration?
- Question 8: Should a developer that wishes to geographically extend their development be required to lodge new feasibility permit and commercial permit applications? Why or why not?
- Question 9: Would the structure of the feasibility and commercial permit process as described enable research and development and demonstration projects to go ahead? If not, why not?

Chapter 6: Economics of the Regime

Internationally there are a range of economic models associated with offshore renewable energy. Many overseas regimes have one or both of the following features:

- **A support mechanism** – a payment flow from government to the offshore renewable energy project. This can lower costs compared to alternative forms of energy, or provide revenue certainty to enable the project to access cheaper financing.
- **A revenue gathering mechanism** – a payment flow from the project to government. This usually enables the taxpayer to benefit from the development of the offshore renewable energy sector.

The benefits and risks of both types of mechanism in a New Zealand context are considered in turn in more detail below. However, we note that there is a complex interdependency between any mechanism to gather revenue from developments and any decision to provide support mechanisms. For example, government might gather revenue from a project, but, as this will increase project costs, it may also increase the likelihood that government would need to use this revenue to provide a revenue support mechanism. There will likely be some circularity to the flow of these funds, and the extent of which will depend on the quantum and structure of each measure.

New Zealand's current electricity system relies on a market where electricity is traded to achieve the most efficient outcome. The operation of this market, and the interplay of any revenue gathering or support measures, is also complex. We note that other forms of electricity generation in New Zealand are not currently subject to either revenue support or revenue gathering but that oil and gas currently operates with royalties and has received support in the past.

Questions for consultation

10. Is there an interdependency between the case for revenue support mechanisms and the decision as to whether to gather revenue from the regime? What is the nature of this interdependency?

INTRODUCING REVENUE SUPPORT AND STABILISATION MECHANISMS

Internationally, offshore renewable energy projects, primarily offshore wind, have typically been supported by some form of revenue support or stabilisation mechanism. These mechanisms typically have one, or both, of two purposes:

- Offshore wind projects are sometimes more expensive than other accepted and available generation types within a country and revenue support can help bridge this gap.
- Offshore wind projects have high upfront capital costs, low operational costs and long operational lives (typically 20 to 30 years) and, as a result, developers, investors and lenders desire long-term revenue certainty. Revenue stabilisation mechanisms are designed to provide prospective lenders with confidence that regular payments will be met which can provide an opportunity for developers to access cheaper financing. This can help to lower the

capital costs of the project and therefore, in turn, can reduce overall project costs and the cost of electricity to the consumer.

Support mechanisms are used internationally

The choice and design of these mechanisms has changed over time and varies by country. We have summarised some non-exhaustive examples in the table below:

Table 1: International examples of support mechanisms

Mechanism	Description	Regime used within
Feed in Tariffs	Government sets a fixed power price and pays for electricity produced over the project life. Usually, a government progressively lowers the tariff offered to new projects as the market matures.	Such structures were used to support early German and United Kingdom offshore renewable energy projects.
Feed in Premium	A government pays an agreed premium above the wholesale price to the developer.	This approach has been used in Denmark and Germany.
Contracts for Difference (CfDs)	This is an auction-based mechanism where developers bid for the price which they will be guaranteed as revenue over a contract period (e.g. 15 years). There are different types of CfDs, but in a two-way CfD, when the bid price is above the market price, the developer receives a top-up payment from the government. Whereas when the bid price is below the market price, the developer pays the difference back to government.	This mechanism was introduced in the United Kingdom and is being replicated and/or considered in a range of other countries.
Fiscal support incentives	Some countries use fiscal measures such as tax credits to support development. Such measures work by lowering the amount of tax paid by companies within the scheme.	This approach has been used in the United States of America.

Looking at international examples it is evident that the design of these mechanisms has evolved over time, reflecting increasing technological maturity and falling project costs. More specifically:

- where a subsidy is offered, the level of subsidy has typically fallen
- there is an increasing trend toward revenue stabilisation mechanisms rather than subsidy mechanisms (i.e. mechanisms that provide revenue certainty, but do not necessarily result in a subsidy (e.g. a two-way CfD))
- the first projects without any government support are starting to come online in Europe.

Considering the case for offshore renewables support mechanisms in a New Zealand context

As can be seen internationally, and as outlined above, the need for support mechanisms for offshore wind has reduced over time. In progressing offshore renewable energy later than some countries, there may be an opportunity for New Zealand to benefit from the risk reduction, learning and technological maturity already achieved internationally. We are interested in the extent to which this, combined with high quality geographical conditions such as wind speeds, might provide New Zealand with an opportunity to offer lower levels or different types of support than in some countries that already have offshore renewables.

Furthermore, in New Zealand we are fortunate that a very high percentage of the electricity system is already renewable (82 per cent)[6] and that this has so far largely been delivered without the types of support mechanisms described above. Overseas, where the proportion of use of fossil fuels in the energy system is much higher, there may be significantly more imperative for consumers or taxpayers to financially support a transition to a renewable option like offshore wind in order to meet climate change commitments.

There is clearly a lot of work to be done for New Zealand to meet the renewable commitments set out in Chapter 2 and help support the net zero transition of other sectors. However, we are conscious that if support is offered for offshore renewables and not onshore equivalents, this could have a chilling effect on the onshore renewable pipeline and reduce investment in these technologies. We think there is good reason to avoid such an outcome given that, while falling, the costs of offshore renewable projects are currently higher than onshore equivalents. We also note that onshore renewable projects, particularly solar, are currently likely to be built more quickly than offshore generation projects.

Work has commenced to consider the case for support mechanisms for the wider energy system

As set out in Chapter 2 this discussion document has been published as part of a package of work to progress New Zealand's energy transition. Another part of this package is the discussion document *Measures for Transition to an Expanded and Highly Renewable Electricity System* which considers the transition to a highly renewable electricity system for New Zealand. It considers the challenges we face in progressing this transition in a way that also ensures the system is reliable, secure, resilient and affordable and seeks views on the mechanisms that might be needed to address these challenges.

One specific topic discussed in that paper is whether there is a need for additional policies to support the development of new, large-scale renewable generation and, if so, what types of measures could be considered. Some potential measures outlined include CfDs and power purchase agreements. This is a complex issue and no decisions have been taken at this stage. We are interested in gathering information to be able to inform our options analysis.

If you have views that you would like to put forward in relation to this topic, we encourage you to respond to the *Measures for Transition to an Expanded and Highly Renewable Electricity System* discussion document. That consultation period will end on 02 November 2023.

We are, however, also interested to hear any feedback on rationales for supporting offshore renewables specifically.

Questions for consultation

11. Is there a risk in offering support mechanisms for offshore renewables without offering equivalent support to onshore renewables? Are there any characteristics of offshore renewables which mean they require support that onshore renewables do not?

INTRODUCING REVENUE GATHERING MECHANISMS

Internationally, some offshore renewable regimes include a revenue flow to government. The purpose of such a flow is to enable the taxpayer or wider population to share in the benefits of the development of the offshore renewable energy infrastructure. This is similar to the Crown Minerals Act 1991 which includes such a flow in the form of a royalty payment to the government.

In New Zealand, there is also a related question as to whether there should be revenue sharing with iwi and hapū. This is discussed further in Chapter 7.

When looking across domestic and international examples, if including such a charging mechanism, some of the key design choices that would have to be taken include:

- What **metric** to base the charge on. This could be a space-based metric (such as squared kilometres), a production-based metric (such as MWh) or an accounting-based metric (such as revenue, gross revenue or profit).
- What **quantum** the mechanism should be seeking to gather. In practice this is typically determined by a percentage applied to the base metric.
- What **time period** the charge covers. For example, this could be during feasibility (to secure the site), an ongoing payment during commercial operation, or a combination of both.
- Whether the **amount** should be fixed or determined through a competitive allocation process. In some international examples, such as the United States of America and United Kingdom, a competitive bidding system is used that generates material revenue for the taxpayer. However, we are conscious that these are very mature markets, with high levels of competition which may not be possible to replicate in New Zealand at this stage.

Table 2: International examples of revenue gathering

Example	Description
Royalties within the New Zealand Crown Minerals Act 1991	A fixed percentage of permit holder revenue or profits (e.g. for petroleum this is 5% of revenue and for gold 2% of revenue).
Option and lease fee for offshore renewables in the United Kingdom (note this excludes Scotland which has a different process)	There are two components of revenue gathering in the United Kingdom: • **Option fee** – This is an amount paid at the feasibility stage for the developer to secure the site. The amount is a competitive allocation process that developers bid into. These amounts can be very material with recent option values being between the equivalent of $230m and $460m per 1.5GW project.

	• **Lease fee** – This is an ongoing payment through the commercial life of the project. This is based on a fixed percentage applied to a base figure (e.g. 2% of gross revenue).
Reservation and lease fees for offshore renewables in the Netherlands	Similar to the United Kingdom system there is a payment during feasibility (termed a reservation fee) and then an ongoing payment during operation. However, unlike the United Kingdom system the amounts are based on a fixed rate applied to production volumes and result in more modest revenue flows back to government.

On the other hand, there are a range of international offshore renewable regimes that do not include any revenue gathering back to government and instead operate on a cost recovery model. Examples include Australia and a number of other European countries.

Evaluation of options

The clear, potential benefit of a revenue gathering mechanism is revenue flow back to government and resulting benefits to the taxpayer.

However, there are also several risks with taking such an approach:

- The inclusion of a material revenue flow back to government, especially when offshore renewable projects are already expensive, could deter investment. This could undermine the ability of offshore renewable projects to contribute to New Zealand's climate change goals.
- Similarly, and as noted above, we expect that such a revenue flow would result in additional costs for the project. This could, in turn, flow through to higher electricity prices experienced by the consumer.
- Other international regimes that involve a revenue flow back to government typically also involve a revenue support mechanism (e.g. a CfD). While no decision has been taken on revenue support, and as outlined earlier within the chapter, there is an interplay between these two decisions. It could be problematic to commit to a revenue gathering mechanism for government in advance of commitment to any revenue support mechanism.

At this stage, we do not have a preferred option as to whether there should be a revenue flow back to government but are interested in stakeholder views on this issue and the interdependence with the case for any revenue support mechanism.

Nevertheless, while there is an open question as to whether the government should gather revenue, government would consider sharing any revenue received with iwi and hapū. This is discussed further in Chapter 7.

Questions for consultation

12. Should there be a revenue flow back to government? And, if yes, do you have views on how this should optimally be structured? For comments on potential flows to iwi and hapū please refer to Chapter 7.

GOVERNMENT INTENDS TO RECOVER THE COST OF THE REGIME

Irrespective of any decisions regarding revenue support or revenue gathering, it is appropriate for government to recover the cost of administering the regime from participants. This is in line with Treasury guidance that public organisations generally charge fees or levies when the goods or services they provide deliver a specific group (and not the population as a whole) with a direct benefit. Any fee would be structured in a way that closely reflects the costs needed to provide the services.

We propose to structure cost recovery into an application fee and an annual fee as follows:

- **The application fee** – this would be charged irrespective of the success of the application. This could be helpful in deterring non-serious applicants.
- **The annual fee** – this would be charged only to applicants who have been granted and hold a permit. This may be necessary as it would be operationally challenging to ensure all costs could be recovered through an application fee structure alone, particularly given the long duration of permits.

It is important that the fees charged reflect the benefit each participant attains from the regime. Therefore:

- We propose that the commercial fees are set higher than feasibility fees for both the application and annual fee.
- It may be appropriate for the fee to be proportionate to the geographical size of the application so that applications for larger sites would be charged more than applications for smaller sites.

Questions for consultation

13. Do you agree with the proposed approach to cost recovery? If not, why not?

CHAPTER 6 CONSULTATION QUESTIONS

In this chapter, we asked the following questions:

- Question 10: Is there an interdependency between the case for revenue support mechanisms and the decision as to whether to gather revenue from the regime? What is the nature of this interdependency?
- Question 11: Is there a risk in offering support mechanisms for offshore renewables without offering equivalent support to onshore renewables? Are there any characteristics of offshore renewables which mean they require support that onshore renewables do not?
- Question 12: Should there be a revenue flow back to government? And, if yes, do you have views on how this should optimally be structured? For comments on potential flows to iwi and hapū please refer to Questions 14 and 15.
- Question 13: Do you agree with the proposed approach to cost recovery? If not, why not?

Chapter 7: Māori Rights and Interests and Enabling Iwi and Hapū Involvement

Māori have strong cultural, spiritual, traditional and historical connections to the moana surrounding New Zealand. The December 2022 discussion document asked questions relating to Māori involvement in the assessment of feasibility for offshore renewable energy development. The key themes expressed in submissions from iwi and hapū were:

- General support for the transition towards a low-emissions future, including offshore renewable energy, so long as it does not adversely impact Māori.
- Existing rights and interests of Māori should not be unduly impacted by the feasibility and the commercial stages of development.
- Iwi and hapū should be partners in the design of the offshore renewable energy regime.
- The regime should enable affected iwi and hapū to participate in decision making and throughout the life of the development, and the government should provide appropriate resourcing.
- Economic benefits from developments should be shared with Māori, including any revenue flows (such as royalties) and in some cases direct commercial participation.

PROCESS TO DEVELOP OPTIONS FOR MĀORI INVOLVEMENT

In deciding to release this document, the Government has directed us to work in close collaboration with iwi and hapū through a dedicated process. We intend to engage directly with iwi and hapū over the course of 2023. This will inform the options we will develop for consideration by the Government.

The discussion below has been kept at a high level, so as not to pre-empt those discussions. It sets out our initial thinking of the key issues.

We will identify appropriate check-in points to engage with developers and other interested stakeholders on the options developed through this process.

Questions for consultation

14. Is there anything you would like us to consider as we engage with iwi and hapū on Māori involvement in the permitting regime?

EXISTING RIGHTS AND INTERESTS

In the development of the regime we are not proposing to remove any legally-recognised rights and interests that might be held by iwi or hapū, e.g. those provided for under te Takutai Moana Act 2011, Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019 and the Māori Fisheries Act 2004. We acknowledge that there may be claims to other rights and interests that have not yet been determined that may be relevant to offshore renewable energy development, and we will work with iwi and hapū to understand what this means for the design of our regime. Offshore renewable energy development may require limiting access to and use of areas, e.g. through safety zones. We intend to work with iwi and hapū to minimise undue impact of offshore renewable energy development on their rights and interests.

Based on feedback on the December 2022 discussion document, we have identified two key design opportunities to work collaboratively with iwi and hapū alongside consultation on this discussion document. These are enabling iwi and hapū involvement in decision making and ensuring the creation of genuine economic opportunities for Māori.

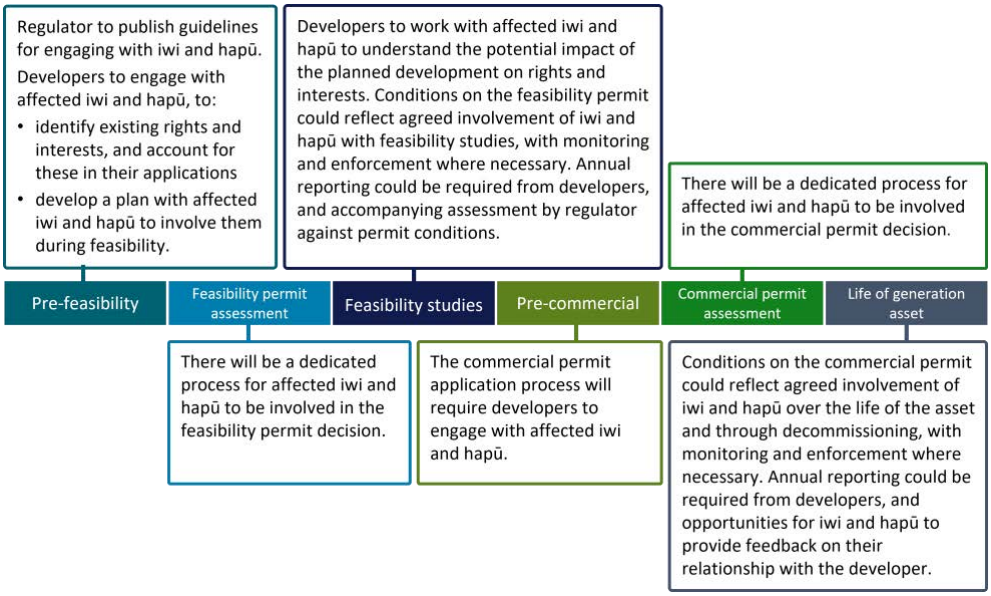
ENABLING IWI AND HAPŪ INVOLVEMENT IN DECISION MAKING

One of the policy objectives for the design of the full offshore renewables regulatory regime is to enable Māori participation in a regime that recognises the Crown's responsibility to give effect to the principles of Te Tiriti o Waitangi / Treaty of Waitangi.

The regime will need to provide for iwi and hapū to be actively and holistically involved in decision making for the offshore renewable energy regime. Consideration could also be given to incorporating resourcing costs for this involvement into the permit fee structure.

Based on feedback in iwi submissions on the December 2022 discussion document, we have developed a high-level representation of how affected iwi and hapū could be included as part of the decision-making process, as outlined in Diagram 4 below. Details of this process are to be developed further through engagement with iwi and hapū.

Diagram 4: Potential iwi and hapū participation in decision making



Participation in the environmental consent regime

As explained in Chapter 8, activities undertaken in the waters of New Zealand are subject to various environmental regimes that require environmental consents. We aim for the permitting regime to complement these environmental consents, rather than replacing them.

As part of these environmental consent processes, iwi and hapū will have opportunities to provide written or oral submissions that describe the potential impact of the proposed activity. This includes information on the potential impact on the natural environment, as well as on social, economic, aesthetic and cultural conditions.

We are conscious that the environmental consent processes create a significant amount of work for iwi and hapū. This is one of the reasons we aim to minimise duplication between our permitting regime and the existing environmental consent process. Involvement in permit application decision making would focus on matters relevant to the permit application criteria discussed in Chapter 5.

ECONOMIC OPPORTUNITIES FOR MĀORI

One of the key themes from iwi submissions on the December 2022 discussion document was the need to ensure that genuine economic opportunities are created for Māori as part of offshore renewable energy development. We have identified three main ways economic benefits could potentially flow to Māori in Table 3 below.

Table 3: Economic opportunities with Māori

Type of involvement	Description
Direct economic involvement	Māori may wish to partner commercially with developers or the wider supporting industries to come to arrangements to support investment and employment opportunities.
Indirect economic involvement	Offshore developments are likely to have general economic benefits for the surrounding region, including new jobs and increased commercial spending.
Revenue flows	As discussed in Chapter 6, the Government is considering the merits and risks of collecting a revenue flow from developers throughout the life of a development. Any revenue flow could potentially be shared with iwi and hapū.

Māori economic involvement

Our initial thoughts are that defining direct economic involvement requirements in legislation would be difficult to implement in practice and may unduly constrain parties' flexibility to make their own commercial decisions over time. We are interested to discuss with iwi and hapū plans for direct economic involvement with developers, and whether there is a role for government.

As discussed in Chapter 6, we are considering including potential economic benefits of the development in the permit application criteria. This would provide one way in which decisions on permits could incorporate an assessment of economic benefit to iwi and hapū. We will engage iwi and hapū to seek their views on including the benefits for iwi and hapū in this criteria.

Potential for revenue flows

Chapter 6 discusses various international examples of revenue gathering mechanisms as part of offshore renewable energy regimes. The Government is currently considering the merits and risks of including a revenue flow to government as part of New Zealand's regime. We do not have a preferred option at this stage.

We are interested in working with iwi and hapū to understand their interest in revenue flows from developments, including if the government does not earn revenue from the regime. In the case the government collects a revenue flow as part of the regime, we consider it could be appropriate for this to be shared with iwi and hapū, in line with strong feedback we received from some iwi on the December 2022 discussion document. The mechanism for this would need to be developed in collaboration with iwi and hapū.

Questions for consultation

15. Have we identified the key design opportunities to work collaboratively with iwi and hapū alongside consultation? Is there anything we have missed?

IDENTIFYING WHICH IWI AND HAPŪ HAVE INTERESTS IN AREAS OF DEVELOPMENT

A key part of delivering a regime that recognises the Crown's responsibility to give effect to the principles of Te Tiriti o Waitangi will be ensuring that iwi and hapū that have an interest in areas of development are correctly identified from an early stage. We intend to work with iwi and hapū on how interests can be appropriately identified to:

- ensure the appropriate iwi and hapū are involved in the decision-making process
- determine the distribution of any potential revenue flow to iwi and hapū.

We think identifying interests will likely be easier within the Territorial Sea, where interests are clearly defined, than further out in the EEZ.

Questions for consultation

16. Are there any Māori groups we should engage with (who may not have already engaged)?

CHAPTER 7 CONSULTATION QUESTIONS

In this chapter, we asked the following questions:

- Question 14: Is there anything you would like us to consider as we engage with iwi and hapū on Māori involvement in the permitting regime?
- Question 15: Have we identified the key design opportunities to work collaboratively with iwi and hapū alongside consultation? Is there anything we have missed?
- Question 16: Are there any Māori groups we should engage with (who may not have already engaged)?

Chapter 8: Interaction with Environmental Consenting Processes

Activities in the Territorial Sea and EEZ are subject to various legislative regimes, including, but not limited to the Resource Management Act 1991 (RMA), the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ Act), the Marine and Coastal Area (Takutai Moana) Act 2011, and the Marine Mammals Protection Act 1978. This chapter provides some general guidance about what consents may or may not be required under the RMA and the EEZ Act but should not be relied upon as legal advice or a statement of law. Nor does this chapter seek to comprehensively set out the legislative regimes operating in the Territorial Sea and the EEZ that developers will need to consider.

This term 'environmental consents' collectively refers to resource consents under the RMA and marine consents under the EEZ Act.

As described in previous chapters developers will need permits to construct and operate offshore renewable energy projects. We propose that these permits should not replace or remove the need for developers to obtain the relevant environmental consents, but will sit alongside them. These processes each serve a different purpose:

- **The permitting regime** – intended to ensure that developments being taken forward are in the national interest, including that developers are financially and technically capable to deliver their projects and carry out decommissioning obligations. The proposed regime will also create a mechanism to compare offshore renewable energy development proposals in similar locations.
- **Environmental consenting processes** – intended to promote sustainable management of natural and physical resources and consider environmental effects. This will include, among other things, consideration of the impacts of activities related to offshore renewable development on biological diversity such as ecosystems, habitats and ecological corridors.

The requirement for developers to obtain both types of approvals is consistent with the operation of the New Zealand regulatory regime for petroleum and minerals as governed by the Crown Minerals Act 1991 and its interaction with the RMA and the EEZ Act. Currently we see no reasons for departing from this status quo, particularly given the differing purposes of these regimes.

ENVIRONMENTAL CONSENTS FOR OFFSHORE RENEWABLE ENERGY PROJECTS

There will be environmental consenting requirements for different stages of an offshore renewable project, from feasibility studies to construction, operation and decommissioning. Developers are likely to require different environmental consents at different stages of the project. Whether, when and what environmental consent(s) are required will depend on the proposed activities and where they will take place (e.g. a land use consent for activities on land above the high water mark).

Environmental consent regime applying in the Territorial Sea

Activities in the Territorial Sea will need to comply with the RMA, its associated instruments (such as National Policy Statements), and rules in regional coastal plans. The likely environmental impact of these activities will determine how and what rules apply.

The construction of infrastructure in the Territorial Sea will require a specific resource consent called a coastal permit. Other activities, such as conducting feasibility studies may or may not require a coastal permit depending on the environmental impact of the activity and how this is classified in relevant regional coastal plans.

The consent authority for a coastal permit is usually the regional council. However, an applicant may lodge an application directly with the EPA instead or request its application be determined by the Environment Court. An application that is nationally significant may also be "called in" by the Minister who may refer it to a Board of Inquiry or the Environment Court for decision.[ii] Applications may be publicly notified to provide the public with the opportunity to submit, depending on the level of environmental impact and the rules that apply.

Current resource management reforms propose to repeal the RMA and enact a new Natural and Built Environments Act and a Spatial Planning Act. The Government intends to pass the legislation by October 2023. This legislation seeks to enable development within limits and targets and will be underpinned by a National Planning Framework that provides national direction to consent authorities. The transition to the new resource management system is anticipated to take up to 10 years to complete. We acknowledge that some developers will need to seek a coastal permit within the transition period and the Government is working on clear transitional provisions so developers know what rules will apply at different times.

Environmental consent regime applying in the exclusive economic zone

Activities in the EEZ will need to comply with the EEZ Act and its associated regulations.

Some activities associated with the construction, operation, and decommissioning of infrastructure such as wind turbines in the EEZ will require a marine consent. Some activities involved in the feasibility stage of development may be permitted without a marine consent provided certain conditions are complied with.

Applications for marine consents are lodged with the EPA. Marine consent applications may be publicly notified. Certain activities including the construction of installations on the seabed will be considered by a Board of Inquiry. A Board of Inquiry is established by the Minister for the Environment.

DECISION MAKING FOR ENVIRONMENTAL CONSENTS RELATING TO OFFSHORE RENEWABLES

Offshore renewable energy projects that are located in the EEZ will be subject to the environmental consent regimes in both the EEZ Act and the RMA (for infrastructure/cables to connect generation assets to the national grid). We are considering whether it would be desirable for one body to be

[ii] If the proposal of national significance relates wholly to the coastal marine area, the Minister is the Minister of Conservation. If it relates partly to the coastal marine area, it is a joint decision between the Minister for the Environment and the Minister of Conservation.

responsible for assessing environmental consents under both Acts for a single development. We note the EEZ Act allows for joint consent applications for cross-boundary activities for a coastal permit under the RMA and a marine consent under the EEZ Act with the joint process administered by the EPA. For nationally significant matters, the responsible Ministers may set up a Board of Inquiry to determine the joint application. [iii]

Having a single consent authority administering all environmental consents for a development could provide better management and oversight of the environmental consenting process across the life of a project. It could enable a coherent consideration of the environmental impacts of a project across the EEZ and the Territorial Sea, with the consent authority assessing cross-boundary impacts.

We consider that the ability for Responsible Ministers to appoint a Board of Inquiry to consider joint applications is useful to ensure experts with the specialist knowledge, expertise and skill assess such applications. The novel nature of such projects in New Zealand makes the need for specialist expertise and the development of baseline environmental data (e.g. seabird populations and migratory patterns) particularly critical.

Questions for consultation

17. For each individual development, should a single consent authority be responsible for environmental consents under the RMA and the EEZ Act? Why or why not?

INTERACTION BETWEEN PERMITS AND ENVIRONMENTAL CONSENTS

In designing the permitting process (described in Chapters 3), we consider it important that it interacts smoothly with environmental consenting requirements (outlined in this chapter).

Avoiding duplication

We consider it important that the permitting process does not unnecessarily duplicate assessments or processes that will take place through the environmental consenting process. Environmental consenting processes already include a thorough assessment of the environmental effects of activities related to development. We do not propose to replicate this through the permit assessment process and will instead rely on the approvals granted through environmental consenting processes. This is because:

- Environmental assessments are firmly within the remit of consenting authorities such as relevant local authorities and the EPA, rather than with MBIE.
- Environmental considerations and impacts are best considered within the specific legislative framework established for this. We think it is important to minimise duplication so as to avoid unnecessary process costs, time and hurdles for developers, iwi, hapū and the public who wish to provide input into offshore renewables projects going ahead.

However, while we do not plan to include an assessment of environmental effects in the offshore renewable energy regime, it may be necessary for the permitting process to consider the capability of the developer to obtain relevant environmental consents. This would be to reduce the likelihood

[iii] The responsible Ministers are those with responsibilities for administering the EEZ Act and the RMA.

of a scenario in which a feasibility permit, or even a commercial permit (depending on the order of approvals: see below) be awarded to an applicant that is not likely to be able to get a consent. Such a scenario could result in a waste of potentially high quality, scarce development space.

Any assessment of capability to get an environmental consent could include things like an understanding of the environmental consenting process(es), early engagement with consent authorities and clear plans to work through environmental data collection. As set out in Chapter 2 we think it could be appropriate for developers to seek to progress this collaboratively, working with other developers, iwi, hapū and relevant government agencies.

The relevant authorities will need to be able to work closely together. To help facilitate this, it may be appropriate for these bodies to be given the ability to share information with one another, while respecting commercial sensitivities, in order to avoid duplication.

Questions for consultation

18. Do environmental consenting processes adequately consider environmental effects such that it is not necessary to duplicate an assessment of environmental effects in the offshore renewables permitting regime?

19. Should the offshore permitting regime assess the capability of a developer to obtain the necessary environmental consents? If not, why not?

OPTIMAL SEQUENCING OF PERMITS AND ENVIRONMENTAL CONSENTS

For the avoidance of doubt, offshore renewable energy projects will be required to have all the relevant authorisations (environmental consents, feasibility and commercial permits) before construction can begin. However, there are different options for the order in which developers may or should be required to get these authorisations.

In the discussion below 'relevant environmental consent(s)' refers to the relevant environmental consents under the RMA and EEZ Act to **construct** the generation assets and associated infrastructure. There may be other environmental consents required for feasibility studies and decommissioning.

We think that it is appropriate for the feasibility permit to be the first step. However, beyond that, there could be three options:

- **Option 1**: feasibility permit – relevant environmental consent(s) – commercial permit
- **Option 2**: feasibility permit – commercial permit – relevant environmental consent(s)
- **Option 3**: feasibility permit first. Then relevant environmental consent(s) and commercial permit in any order, including concurrently.

Our preferred approach is Option 1. This is because:

- at the commercial permit stage, the regulator would not need to assess the developer's capability to get relevant environmental consents (as these would already be in place)

- this order would enable financial and technical capability assessment to take place as close as possible to final investment decision
- given the potential national significance of projects, the regulator would have final say on whether development goes ahead, with the benefit of knowing that consent authorities have already consented the project.

However, we are aware that prescribing a particular order could potentially impede project timelines. This could negatively impact the pace of delivery and investor certainty. At a minimum we would want the process structure to enable developers to be progressing work on the commercial permit and consent application(s) concurrently and for developers to be engaging with the relevant regulators throughout these processes. For the sake of clarity, the preferred option above means that the regulator could only **grant** a commercial permit once all other approvals were received, but this would not prevent preparatory work being progressed (or applications to be submitted) on both types of approvals at the same time.

This ordering also relates to the structure of the commercial permit process described in Chapter 5. If we proceed with including an ability for the decision maker to compare developments in some locations side-by-side (our proposed option 2 in Chapter 5) there is a risk that a developer may have incurred the cost of the consent process and then will not be able to get their commercial permit (though this risk would apply in reverse if the commercial permit was granted first).

Questions for consultation

20. What is the optimum sequencing between obtaining feasibility permits, commercial permits and relevant environmental consent(s)?

THE CONSENT ENVIRONMENT FOR OFFSHORE RENEWABLE ENERGY

The previous section describes the environmental consenting pathways for offshore renewable energy and considers how our permitting process can best interact with it. We are aware that the environmental consent regimes and our proposed permitting regime needs to work together if we are to enable offshore renewable energy development. In the next section we discuss some of the potential issues with these processes. However, at this stage, we are not proposing any policy changes due to them being considered through other processes set out below.

There are potential challenges to offshore renewable energy projects obtaining the relevant environmental consents. The challenges differ according to the location of the development.

Coastal marine area / Territorial Sea

The New Zealand Coastal Policy Statement contains directive policy language with ‘avoid’ policies in relation to specific indigenous biodiversity, outstanding natural character and outstanding features and landscapes in the coastal environment (which includes the Territorial Sea). As interpreted by the courts, this strong directive language overrides weaker less specific language in other instruments, such as the National Policy Statement for Renewable Electricity Generation, making it harder for renewable electricity projects to obtain consent.

The Ministry for the Environment and MBIE recently concluded consultation on new National Policy Statements for Renewable Energy Generation and Electricity Transmission. The proposals seek to strengthen the national policy direction for Renewable Energy Generation and Electricity Transmission to enable New Zealand to significantly increase our renewable electricity generation capability. Views were also sought on the extent to which the New Zealand Coastal Policy Statement poses challenges for consenting onshore renewable energy projects. MBIE and the Ministry for the Environment will assess these submissions to consider what amendments, if any, are desirable to the two National Policy Statements.

The Government is also developing the first National Policy Framework that will provide all national direction under the new resource management legislation. This will include a new infrastructure chapter that will seek to better enable the provision of infrastructure to address the current infrastructure deficit and support New Zealand's population. It will also contribute to reducing climate emissions and improve natural environmental impacts.

Exclusive Economic Zone

There is less policy direction on how consent authorities should assess applications for marine consents under the EEZ Act compared to under the RMA. For instance, there have been no EEZ Policy Statements (the equivalent of National Policy Statements under the RMA) that might provide a marine consent authority with guidance on how to assess the importance of renewable energy generation within the context of the regime, particularly where there may be conflicts with other environmental interests and values.

We recognise there may be a need for a future workstream to further consider these challenges and potential solutions to them and we may begin work on this once design work for the core regulatory regime has been completed.

Questions for consultation

21. Are there are any other matters about the environmental consent regimes that you think need to be considered in the context of the offshore renewable energy permitting regime?

OPTIMAL LOCATION OF OFFSHORE RENEWABLE ENERGY DEVELOPMENTS

We would like to better understand the factors that determine the optimal location of offshore renewable energy developments between the Territorial Sea and the EEZ. We have included the factors we expect to be relevant below:

- **Project economics** – our expectation is that projects further out into the EEZ may have higher costs than projects closer to shore in the Territorial Sea. This might be because, for example, longer, more complex transmission cables are required to support infrastructure further from land.
- **Landscape, character, and amenity value** – our expectation is that developments further from shore would be less visible and therefore less of a disturbance to the natural coastline. The impact on a location will depend on the specific context of the existing environment.

- **Environmental impacts** – prior to feasibility work taking place we have limited understanding of the environmental impacts of offshore renewable energy development in New Zealand. However, we know there are potential adverse impacts to marine mammals and seabirds. It is unclear what the extent of these impacts might be, and whether they will be more adverse in the Territorial Sea or the EEZ. The actual impacts will depend on site specific context.
- **Existing and future uses and interests** – there are different potential uses and interests in the Territorial Sea and the EEZ. We are interested in views as to whether developments in the Territorial Sea or the EEZ are more likely to disrupt or conflict with existing and future uses of marine space.

We are interested in obtaining stakeholder feedback on these factors to inform any future work.

Questions for consultation

22. How should the factors outlined influence decisions to pursue offshore renewable energy developments in the EEZ or the Territorial Sea? Are there other factors that may drive development in the EEZ versus the Territorial Sea?

CHAPTER 8 CONSULTATION QUESTIONS

In this chapter, we asked the following questions:

- Question 17: For each individual development, should a single consent authority be responsible for environmental consents under the RMA and the EEZ Act? Why or why not?
- Questions 18: Do environmental consenting processes adequately consider environmental effects such that it is not necessary to duplicate an assessment of environmental effects in the offshore renewables permitting regime?
- Question 19: Should the offshore permitting regime assess the capability of a developer to obtain the necessary environmental consents? If not, why not?
- Question 20: What is the optimum sequencing between obtaining feasibility permits, commercial permits and relevant environmental consent(s)?
- Question 21: Are there are any other matters about the environmental consent regimes that you think need to be considered in the context of the offshore renewable energy permitting regime?
- Question 22: How should the factors outlined influence decisions to pursue offshore renewable energy developments in the EEZ or the Territorial Sea? Are there other factors that may drive development in the EEZ versus the Territorial Sea?

Chapter 9: Enabling Transmission and other Infrastructure

Offshore renewable energy projects could either be directly connected to load (e.g. a single industrial user) or they could be connected to the national grid. If connecting to the national grid, new transmission infrastructure will be required to transport the electricity generated to the grid onshore. This infrastructure is typically split into four main parts:

- **inter-array cables** – low voltage cables running between an offshore substation and individual installations (e.g., turbines)
- **offshore substation** – connecting the smaller inter-array cables to the large, high voltage export cable
- **export cables** – transporting the electricity from the substation to shore
- **onshore connection** – onshore connection assets transporting the electricity from the shore to the onshore grid.

Onshore interconnection assets (the core grid 'backbone') may also require reinforcements to handle the additional electricity being generated in a particular location.

INTERNATIONAL APPROACHES TO ENABLING TRANSMISSION

Internationally different approaches have been taken regarding the parties that fund, build, own and operate offshore transmission infrastructure and onshore connections. Some countries have taken a more developer-led approach, whereas in other countries the Transmission System Operator (TSO) has taken a more leading role. In New Zealand, the TSO is Transpower.

Some examples include:

- **Denmark (developer-led)** - In the Denmark open-door model the developer funds, builds, owns and operates the offshore transmission assets. The rationale for this approach is that developers have this capability, can progress at a faster pace, and can better optimise the cost of their own projects.
- **Netherlands (TSO-led)** - The TSO builds, owns, and operates the offshore transmission infrastructure, with this being publicly funded. The rationale for this approach is that this can drive economies of scale, remove investment barriers, and help government to plan infrastructure more efficiently.
- **United Kingdom (hybrid)** - The developer typically builds the offshore transmission infrastructure. The energy regulator then runs a competitive process to award an Offshore Transmission Licence to a third party (referred to as an Offshore Transmission Operator). The infrastructure is then transferred to the Offshore Transmission Operator who owns and operates the infrastructure to earn a regulated return.

There are many different iterations of possible approaches on this developer – TSO-led spectrum. In summary, we consider that a developer-led approach is likely to be preferred by developers as it gives them more control over delivery timelines and costs. This may encourage development and

may potentially result in quicker delivery times. On the other hand, a more TSO or government-led approach could be more planned and coordinated which may reduce the cost of development in the long-term.

Questions for consultation

23. Are the trade-offs between a developer-led and a TSO-led approach, set out above, correct? Is there anything missing? What could we learn from international models?

TRANSMISSION APPROACHES IN NEW ZEALAND

We are interested in the learnings that can be taken from the international models set out above. However, we also think that it is important, to the extent that it is possible, to maintain consistency between the approach taken to transmission for offshore renewable energy and the approach taken for transmission for other types of renewables. This is to reduce the risk of a distortive impact on the renewable pipeline onshore.

In New Zealand, the funding and delivery approach to new transmission infrastructure is split between connection and interconnection assets. Taking the current approach and adapting it for offshore renewables could work as follows:

- **Interconnection** – Any new or upgrades to existing interconnection infrastructure (the core national grid 'backbone') to support offshore renewable energy would be built, owned, and operated by Transpower. The upgrades would be recovered via the Transmission Pricing Methodology, which is a beneficiary-based charge that would fall on developers and consumers. As upgrades would be in excess of $20 million, they would require Commerce Commission approval.
- **Connection –** Offshore renewable energy projects would also require new connections (one-way flow between the generation asset and the national grid). The developer would apply to Transpower through the connections process and the new connection would be delivered through a Transpower Works Agreement. This is funded by the developer but is typically built, owned and operated by Transpower.

While these are the standard processes that we would expect to be followed for offshore renewables transmission infrastructure in New Zealand, we are aware of several important issues which we discuss below. We are interested in exploring how we might be able to address these issues without a material deviation from the normal New Zealand transmission processes set out above.

CAPABILITY TO BUILD

We understand that the technical skills and knowledge needed to successfully deliver offshore transmission infrastructure are different to that for onshore transmission infrastructure. Transpower owns and operates offshore assets (namely, the HVDC interisland cable), therefore already holds some of the capability required to connect offshore generation plants. However, it is not currently set up to deliver the full range of offshore transmission infrastructure needed for the types of projects currently being envisioned by developers.

While it would be possible for Transpower to expand their capability over time, some developers may already, based on their experience overseas, have this technical expertise more readily available. It could, therefore, be more efficient for developers to fund and build the offshore transmission infrastructure. Under such an approach, it would still be possible for the infrastructure to be owned and operated by Transpower once operational.

We think that such an approach could be facilitated by the existing system. While, as outlined above, it is normally Transpower that builds connection infrastructure, there are mechanisms within the existing system to allow the developer to carry out this work themselves, as long as all technical standards and specifications are met. We are interested in testing this approach with stakeholders.

Questions for consultation

24. Which party do you think should build offshore connection assets? Can existing processes already provide the flexibility for this to be carried out by the developer?

OPPORTUNITIES FOR JOINT CONNECTION INFRASTRUCTURE

We are aware that initial developer interest in offshore renewable energy projects in New Zealand is currently concentrated in a few locations and developers could seek to progress projects on similar timelines. Irrespective of the party that funds, builds and owns the connection infrastructure, there could be benefit in this infrastructure being coordinated and/or shared. This could reduce costs and reduce environmental impacts (fewer cables may mean reduced environmental impacts both onshore and offshore).

Whilst, notionally, there is nothing within the existing system preventing developers proactively coordinating in this way, we expect that several barriers and risks may mean that this is unlikely to happen in practice. These might include:

- commercial sensitivities
- timelines not aligning perfectly
- an unwillingness or inability to take on the delivery risk of another project (e.g. if two developers plan joint infrastructure and one project, for whatever reason, does not go ahead, the other project will be left to bear the full cost of the infrastructure).

We are interested in stakeholder views on the opportunities and risks associated with joint offshore infrastructure and ways in which this could be coordinated within the existing New Zealand system.

Questions for consultation

25. What are the potential benefits and opportunities for joint connection infrastructure? Do you agree with the barriers set out and how could these be addressed?

LEAD TIMES FOR INTERCONNECTION INFRASTRUCTURE

As well as offshore infrastructure and onshore connection assets, offshore renewable energy projects may require upgrades to onshore interconnection infrastructure. The lead times for such upgrades, particularly where a new line is needed, can be very long (e.g. 8 to 10 years). Further, we understand that because of the complexity of some of the issues involved (primarily land access rights) there is very limited scope to accelerate these timelines.

This creates a challenge as current processes mean this interconnection timeline cannot progress until there is commitment from the project. For example, to secure the first major capital approval step of property rights (typically two to three years into the interconnection timeline) offshore renewable energy projects would likely have been expected to have obtained a commercial permit and taken final investment decisions. Given that the construction of an offshore wind farm might be expected to take around three years, this has the potential to materially delay the commercial operation date of offshore renewable energy projects.

However, importantly, interconnection approval processes are designed to protect the electricity consumer from having to pay for the build of infrastructure that does not subsequently go ahead, and we consider this to be an important objective that needs to be carefully balanced.

We are interested in exploring ways in which the early stages of transmission approval processes could progress prior to offshore renewable energy project final investment decisions and how this could be achieved without exposing the electricity consumer to risk. One approach could be for developers to fund some preparatory work, for example in the period between the grant of the feasibility permit and commercial permit. We would welcome stakeholder views on this approach and any alternatives.

Questions for consultation

26. Do you agree with the representation of the timeline challenge for onshore interconnection assets? What opportunities might there be to front load planning work for interconnection upgrades? What role do you see for the developer in this?

As set out in Chapter 2 this discussion document has been released as part of a package of documents to progress the next phase of New Zealand's energy transition. Another part of this package is the discussion document *Measures for Transition to an Expanded and Highly Renewable Electricity System* which considers the transition to a highly renewable electricity system for New Zealand. Chapter 7 of that document considers in more detail whether current transmission regulation and processes are fit for purpose in the context of our renewable energy commitments. While not focused on offshore renewable energy specifically many of the issues covered in that chapter are relevant to transmission infrastructure for offshore renewables and have links to the points set out above. If you have an interest in such issues, we could encourage you to read and respond to that consultation which closes on 02 November 2023.

PORT INFRASTRUCTURE

Offshore renewable energy projects, particularly offshore wind, require access to suitable port infrastructure. The size of component parts combined with the importance, from a health and safety and cost perspective, of carrying out as much work onshore as possible means that this port infrastructure needs to be meet certain specifications, including being of a sufficient size.

We understand that, for offshore wind projects to go ahead in New Zealand, material upgrades to port infrastructure would be required. We are interested in hearing from stakeholders on the scale, type and cost of upgrades that might be needed; what role port owners and operators might play; and in any changes that might be needed to improve the delivery of port infrastructure upgrades.

Questions for consultation

27. What changes might be needed in order to deliver the types of port infrastructure upgrades needed to support offshore renewables?

CHAPTER 9 CONSULTATION QUESTIONS

In this chapter, we asked the following questions:

- Question 23: Are the trade-offs between a developer-led and a TSO-led approach, set out above, correct? Is there anything missing? What could we learn from international models?
- Question 24: Which party do you think should build offshore connection assets? Can existing processes already provide the flexibility for this to be carried out by the developer?
- Question 25: What are the potential benefits and opportunities for joint connection infrastructure? Do you agree with the barriers set out and how could these be addressed?
- Question 26: Do you agree with the representation of the timeline challenge for onshore interconnection assets? What opportunities might there be to front load planning work for interconnection upgrades? What role do you see for the developer in this?
- Question 27: What changes might be needed in order to deliver the types of port infrastructure upgrades needed to support offshore renewables?

Chapter 10: Decommissioning

Offshore renewable energy projects such as offshore wind farms will go through various stages of maintenance and may also have repowering (replacing blades or turbines) within their useful economic lives. However, it is expected that eventually all offshore renewable energy projects will reach the point at which such maintenance or repowering is not commercially viable. At this point, decommissioning takes place, which would involve dismantling the turbines and removing the structures and supporting infrastructure. Decommissioning may also need to take place in other circumstances, beyond end of life, such as certain insolvency or abandonment situations.

We consider it appropriate that the party who constructs and operates an offshore renewable energy infrastructure should be responsible for ensuring this infrastructure is decommissioned at the end of its useful economic life and should be responsible for meeting the costs of decommissioning activity.

In turn we also consider that plans for, and the associated costs of, decommissioning offshore renewable infrastructure should be considered at the earliest stage possible in the development cycle of a project. The intention of such an approach is to reduce the risk of companies defaulting on their decommissioning obligations and to ensure the taxpayer is protected from having to fund decommissioning in the event of a default by the permit holder. This builds on the lessons taken from the abandonment of the of the Tui oil field which has left the Government with an expected bill of $400 million to step in and fund the decommissioning. While the Government has made changes to prevent this happening again with fossil fuel exploration, is important that such a scenario does not occur with offshore renewable energy.

At a headline level, we therefore propose to:

- Place a legal obligation on the permit holder to decommission infrastructure and to create associated criminal offences for failing to do so (see Chapter 11 for further discussion of compliance matters).
- Make it a requirement to submit a decommissioning plan and cost estimate to get a permit. There could be an assessment criterion around the decommissioning plan and permit conditions that the decommission plan is kept up to date.
- Require permit holders to undergo regular financial capability assessments to test their capability to carry out and meet the costs of decommissioning.
- Require permit holders to put in place a financial security covering their decommissioning plan.

These are common features of international offshore renewable regimes such as the United Kingdom and Australia, and New Zealand's Crown Minerals Act 1991 (which was amended in 2021). We would therefore expect potential developers to be familiar with this overall approach. Nevertheless, there are several design choices to be taken within these broad proposals which are discussed below.

We think it is important at an early stage to provide interested parties with clear and consistent information on the likely operation of the decommissioning scheme to make it easier to incorporate into early project planning. We also recognise that iwi and hapū are likely to have a close and active

interest in any decommissioning regime for offshore renewable energy. We are interested to hear Māori views on this topic and to work with iwi and hapū on the planning and design of proposals.

Questions for consultation

28. Should developers be required to submit a decommissioning plan, cost estimate and provide a financial security for the cost estimate? If not, why not?

THE ASSUMPTION OF FULL REMOVAL

The regulatory regime will need to set the standard upon which developers should base decommissioning plans and accompanying cost estimates as this affects the amount of financial security needed. This could be based on full removal of disused infrastructure or some other standard.

International obligations to decommission disused infrastructure have their origins in the United Nations Convention on the Law of the Sea 1982, which requires abandoned or disused structures to be removed to ensure safety of navigation. The International Maritime Organisation also sets standards in relation to offshore structures placed in the marine environment. It recommends that structure should be designed with full removal in mind, and that full removal should be the default position for offshore renewable energy infrastructure unless there are strong reasons for any exception.

However, we are conscious that there is limited international knowledge and experience about the decommissioning of offshore renewable energy infrastructure as, given the relative infancy of the sector combined with long economic lives, very few offshore renewable energy projects have so far been decommissioned. We also recognise that there is evidence to suggest that, in some circumstances, leaving structures in place could be beneficial from an environmental or health and safety perspective. For example, offshore structures can sometimes become homes for marine life that could not otherwise survive in the area, such that removing the structure could also result in the loss of these habitats.

Ultimately, whether anything other than full removal will be accepted should be considered by relevant environmental consent authorities at the end of life of the asset. However, there is still a question, balancing these things, as to the assumption upon which the decommissioning plan, cost estimate and financial security should be based. We consider two options below.

Option 1: full removal

Under this approach, the developer would submit a decommissioning plan and cost estimate based only on one scenario of full removal.

The potential advantages of this approach are:

- As full removal is almost certain to be the costliest option, this approach would offer the greatest protection to government and the taxpayer by requiring a permit holder to obtain and maintain a financial security for a greater amount.
- Planning based on full removal right at the start of a project may lead to better financial planning on the part of developers.

- This approach would be simpler for developers to prepare and for the regulator to assess when compared to Option 2 and therefore may result in lower delivery costs.

Option 2: full removal with the option to present alternatives

Under this approach, the developer would submit a decommissioning plan and cost estimate based on full removal with the option to show alternatives if they expect there to be environmental or health and safety benefits to keeping some of the structures in place. The decision maker would then have discretion as to the amount of financial security required, which would also have to reflect any costs relating to post decommissioning arrangements.

The potential advantages of this approach are:

- As full removal is likely to be the costliest option, such an approach is likely to be preferred by developers as it may mean that financial securities for lower amounts are required. This may be preferable from an investment perspective.
- This approach, arguably, may result in a cost estimate that more accurately reflects what is likely to happen at the time of decommissioning. However, this is very uncertain.

We consider that it is important and appropriate to protect the taxpayer from having to fund decommissioning and therefore, at this stage, our preferred option is Option 1 (a permit decommissioning plan based on full removal).

Questions for consultation

29. Should the decommissioning plan, cost estimate and financial security be based on the assumption of full removal? If not, why not?

TIMING OF FINANCIAL SECURITY LODGEMENT

The regulatory regime will need to specify when government would require the permit holder to lodge the financial security.

One option is to require the full financial security based on the cost estimate at the point of commercial permit grant. This would be the most cautious approach and would therefore offer the greatest protection to government and the taxpayer. However, this is likely to be a very material cost for developers and such a requirement may deter investment.

An alternative approach is for the financial security to reflect key risk periods for the project and in turn government's exposure. We consider that these two periods are during construction and as the project approaches the end of its economic life. To reflect this, one approach would be to have the financial security build up during construction, be released at the point of commercial operation and then build up again over the life of the economic life of the asset.

COST ESTIMATE AND FINANCIAL SECURITY VALUE

We would expect the decommissioning plan and accompanying cost estimate to set out a comprehensive breakdown of cost by category and how the accuracy of figures has been assessed. It may also be helpful to require an independent audit of the cost estimate, but we acknowledge it may be challenging to access this capability in New Zealand.

The cost estimate will need to include a range of assumptions which could be stipulated in regulations and/or accompanying guidance. These assumptions might include that cost should:

- Be calculated according to present day methods and technologies at the time the decommissioning plan is being created and should not include any learning rate assumptions.
- Include a contingency amount to account for increased costs that arise from unforeseen circumstances. This could, for example, be based on engineering class uncertainty levels.
- Be adjusted for inflation.
- Not be offset by any value estimated to be obtained through scrappage of material, as such a value can materially change over time.

One key assumption that government will need to take a position on is whether the estimate should be based on the expected cost based on the developer or the government carrying out the decommissioning. For the avoidance of doubt our intention would always be that it is the developer who should be the party to decommission and the financial capability assessment is intended to ensure this is the case. However, part of the purpose of a financial security is to ensure funds are available to decommission in the event of circumstances such as an insolvency of the permit holder. In this instance, it would be the government and not the company carrying out the decommissioning.

Existing decommissioning regimes take varying approaches to this question. For example:

- **petroleum in New Zealand (through the Crown Minerals Act 1991)** – the cost estimate and therefore financial security value is based on the expected cost for the developer to decommission.
- **the Scottish offshore renewables regime** – the cost estimate and therefore financial security value is based on the expected cost for government to decommission.

The rationale for the Scottish approach is that the cost that government would incur to decommission may not necessarily be the same cost that the permit holder would pay. For example, the permit holder may be planning on reducing costs through use of their own vessel or via preferential rates from an existing commercial relationship, but those options would not be available to government.

However, it is uncertain how much of an impact these differences would make to costs and there may be practical challenges to a developer assessing what the cost to government would likely be. A potential compromise could be for the developer to model their own costs, but to have an obligation to highlight any costs that they think might change if government was responsible for executing the decommissioning plan.

DETERMINING ACCEPTABLE FINANCIAL SECURITY VEHICLES

Another decision to be taken is as to what kind of financial security government will accept and how prescriptive legislation should be about what will be accepted. We propose that funds should be appropriately ringfenced such that they would be available to government if needed. We also do not think it is appropriate to accept any security without confirmation that it would remain protected in the event of an insolvency.

The types of financial security that we consider probably could meet the principle set out above include:

- cash
- New Zealand government debt securities
- bank securities (e.g. letters of credit, performance bonds or bank guarantees)
- managed investment schemes (which could be at the risk of the permit holder and potentially only for a portion of the security).

Cash and Government Debt Securities could be held in trust via an Escrow Account.

Some types of financial security that we probably think would not meet the principle set out above include:

- parent company guarantees
- insurance products.

We think that it could be appropriate for government to provide guidance on the types of financial security it would or would not accept. However, there are many ways for a company to make sure that the money is made available at the appropriate time and therefore it might be appropriate for the decision maker to have flexibility to consider this on a case-by-case basis.

Questions for consultation

30. What are your views on the considerations set out in relation to the calculation of the cost estimate and financial security value or suggested approach for financial security vehicle?

WHEN SHOULD DECOMMISSIONING PLANS BE ASSESSED

As outlined above, we propose that developers be required to submit a decommissioning plan and cost estimate at the commercial permit stage.

We also think there could be benefit in some consideration being given to decommissioning as part of the feasibility assessment. This is because we think it is important to reduce the risk that a party is granted a feasibility permit if they are not subsequently capable of getting a commercial permit. This scenario could occur if a party became unable or unwilling to meet decommissioning obligations.

However, we also think this should be balanced against the fact that, inherently, projects will not be very well defined prior to feasibility activities taking place and therefore there will be a limit to what detail could be provided regarding the decommissioning plan.

One way to approach this could be to require developers to demonstrate as part of their feasibility application:

- an understanding of the decommissioning requirements
- relevant knowledge, capability and experience to execute them when the time comes
- an outline of their plans to work towards a full decommissioning plan during feasibility.

Relatedly, based on our understanding of the range of activities likely to take place during feasibility we would not expect infrastructure to be put in place. However, for the avoidance of any doubt any structures or installations put in place should be fully removed.

Questions for consultation

31. What should the developer be required to provide in relation to decommissioning at the feasibility application stage?

MONITORING REQUIREMENTS FOR DECOMMISSIONING

It is our understanding that the expected cost of decommissioning a project will change over time. This could be for technical reasons such as a change in industry methods or financial reasons such as inflation. To ensure that the financial security is sufficient to cover the full cost of decommissioning we propose that the decommissioning plan and cost estimate be kept up to date by the developer with the financial security adjusted accordingly.

Within this we will need to decide how frequently to require and to check these updates. This will require a balance between, on the one hand, regular enough checks to have an acceptable level of confidence that the security is sufficient; and on the other hand, avoiding a regime that is overly onerous for the developer and costly to the administrator.

One way to approach this could be to have regular assessments that change depending on the level of risk typical in the stage of the development cycle, such as:

- during construction and in the period leading up to the decommissioning date, for example five years out, there could be an annual review
- during periods of normal operation there could be a longer review period of, for example, three to five years.

There may also be benefit in government having the ability to carry out ad hoc reviews, for example, if it becomes aware of a potentially material change in the decommissioning obligation.

Questions for consultation

32. What ongoing monitoring approach do you think is appropriate for the decommissioning plan, cost estimate and financial security?

TRANSFERS AND TRAILING LIABILITY

In a transfer or change of control scenario, as discussed further in Chapter 12, we think it is appropriate that the decommissioning liability remain with the transferor until the transfer is approved by government.

Different companies will have different risk profiles and therefore we think it is appropriate that government should be able to:

- require the new holder to decommission the installation in line with the decommissioning plan already approved
- require the new holder to provide security equivalent to that already in place or a higher security if the risk profile differs from that of the original permit holder.

Furthermore, should a scenario arise in which the transferee cannot decommission, it could be appropriate to have provisions in place for the liability to revert to the previous permit holder.

Finally, if an alternative to full removal is progressed and approved by the relevant authority, then we consider it appropriate for the liability to sit with the permit holder for any ongoing maintenance works and/or monitoring.

DECOMMISSIONING OF TRANSMISSION INFRASTRUCTURE

As with generation infrastructure we consider it appropriate for there to be provisions in place to facilitate the decommissioning of transmission infrastructure. We think that it is probably appropriate for this obligation to sit with the developer and for the decommission plan, cost estimate and financial security to reflect this. Similarly, if any cables were to be left in place, we think the obligation for any ongoing maintenance works and/or monitoring should also sit with the developer.

OPPORTUNITIES FOR RE-USE AND REPOWERING

While it is important, for the reasons outlined above, for this to be an obligation on developers to decommission and a financial security to be in place, we would not want such obligations to obstruct potential opportunities to prolong the economic life of the project for example, through refurbishment or repowering.

We think it could be appropriate to allow the decommissioning plan to be adjusted over time in discussion with government to facilitate such extensions to economic life.

We are also interested in other ways the regulatory regime could encourage the refurbishment of infrastructure or the recycling of materials.

Questions for consultation

33. Are there any other ways in which the regulatory regime could encourage the refurbishment of infrastructure or the recycling of materials?

The proposals set out above relate primarily to the decommissioning requirements that we intend to include within the MBIE permitting regime. However, it may also be appropriate to require a more detailed decommissioning plan to support an application for a marine consent to decommission when the time comes.

This detailed decommissioning plan could be focused on selecting the best approach to decommissioning after comprehensive consultation and consideration of alternative options. It could be submitted and considered by the relevant consenting authority in the years immediately preceding decommissioning taking place. Regulations could, for example, function in a similar way to

the Exclusive Economic Zone (Environmental Effects – Decommissioning Plans) Regulations 2021, which currently just apply to oil and gas.

Regarding the relationship between the two, the MBIE permitting regime would relate to decommissioning obligations and the financial security to support these, whereas decommissioning plans under environmental consent legislation would focus on the environmental effects from the decommissioning process.

Questions for consultation

34. Should offshore renewable energy projects applying for a consent to decommission be required to provide a detailed decommissioning plan related to environmental effects for approval by consent authorities?

CHAPTER 10 CONSULTATION QUESTIONS

In this chapter, we asked the following questions:

- Question 28: Should developers be required to submit a decommissioning plan, cost estimate and provide a financial security for the cost estimate? If not, why not?
- Question 29: Should the decommissioning plan, cost estimate and financial security be based on the assumption of full removal?
- Question 30: What are your views on the considerations set out in relation to the calculation of the cost estimate and financial security value or suggested approach for financial security vehicle?
- Question 31: What should the developer be required to provide in relation to decommissioning at the feasibility application stage?
- Question 32: What ongoing monitoring approach do you think is appropriate for the decommissioning plan, cost estimate and financial security?
- Question 33: Are there any other ways in which the regulatory regime could encourage the refurbishment of infrastructure or the recycling of materials?
- Question 34: Should offshore renewable energy projects applying for a consent to decommission be required to provide a detailed decommissioning plan related to environmental effects for approval by consent authorities?

Chapter 11: Compliance

An important part of ensuring that any new regulatory regime works and has integrity is ensuring that the regulator has a range of tools to both encourage compliance and to respond to non-compliance. This will be relevant for both feasibility and commercial permit holders (though not all compliance tools will be relevant for both types of permits).

Our aims in the design of this component of the regime are:

- **transparency** – that participants within the regime have a clear understanding of what is required of them and what will happen if they do not comply
- **proportionality** – that enforcement options are appropriately matched to the relevant breach or behaviour.

TAKING A BALANCED APPROACH TO COMPLIANCE: THE VADE MODEL

We think our compliance approach should be consistent with other regulatory regimes in New Zealand and in particular with the Crown Minerals Act. We think it is important for the regulator to have a range of tools which can be utilised, adapting to the characteristics of a particular situation. We think this should include a mix of both:

- **proactive tools** – to help participants understand what is required of them
- **reactive tools** – to deal with non-compliance with rules of the regime once it has occurred.

We propose to follow the VADE (Voluntary, Assisted, Directed, Enforced) model to help decide what the best tool is to use on the regulated party (i.e. a permit holder) to achieve behavioural change and compliance with the Act.

TYPES OF BREACHES WITHIN THE REGIME

We have included a list of the types of breaches that we propose to include within the regime below. For the avoidance of doubt, this is not intended as an exhaustive list.

- Operating without a commercial permit.
- Interfering with offshore renewable energy infrastructure or entering a safety zone (for further detail on safety zones, please refer to Chapter 12).
- Decommissioning related breaches which might include: a failure to maintain an appropriate decommissioning plan, cost estimate or financial security; a failure to decommission in accordance with the decommissioning plan and proceeding to decommission without authorisation (for content on decommissioning please refer to Chapter 10).
- Breaches relating to iwi and hapū engagement and involvement (for content on involvement of iwi and hapū please refer to Chapter 7).
- Providing false or misleading information.
- Failure to submit reporting requirements on time. This would include failure to respond to any directions or information gathering notices. It would also include any failure to notify the regulator as to a change of control.

- Failure to pay relevant fees on time. This would include application fees and any annual fee payments.

THE COMPLIANCE TOOLBOX

We consider that it would be appropriate for the regulator to be equipped with a range of tools such that it can encourage compliance and proportionately respond to instances of non-compliance within the regime. As outlined above we propose to follow the VADE model to do this and set out below the types of options we may want to create within each of these categories.

Voluntary

A regime that is easy to comply with can encourage participation, keep compliance costs low and reduce disruption that comes with enforcement action. We think a key part of this is making compliance requirements that are simple and easy to understand.

We also think it could also be helpful for government to provide information and guidance to participants to help them understand what is expected of them and to be available and actively engaging with participants to support compliance.

Assisted

We think that there are benefits, where mistakes have been made, of these mistakes being identified early. To facilitate this, we intend to structure and operate the regime such that participants are encouraged and incentivised to tell us at any early stage of any non-compliance that has occurred or is expected to occur.

To facilitate this, it may also be appropriate for the regulator to have the ability to:

- request information from participants
- carry out inspections to check for compliance with the act and that any permit conditions are being adhered to
- carry out investigations to investigate alleged breaches or serious cases of non-compliance.

Directed

When non-compliance has taken place, we would want to deter further non-compliance through detection and directive action. One way the regulator could achieve this would be by having the ability to give out formal written warnings. This would signal that the issue has not gone unnoticed while giving participants an opportunity to correct behaviour.

Another way to achieve this could be for the regulator to impose new or altered conditions on the permit or make changes to the Management Plan. An example of such a change might include closer monitoring.

We also think that it could be appropriate to include provisions for infringement notices within the regime. Infringement notices are a way of issuing instant fines for non-compliance and would only be used for less serious breaches where there is a specific action a permit holder has failed to do.

Enforced

In serious cases of non-compliance, it will be important for the full force of the law to be used. We propose the regime should include the following enforcement tools:

- **Compliance notices** – this is a direction to fix a previous breach within a specified period. It is a criminal offence not to comply and there would be a penalty for non-compliance. We think this tool could be well suited to urgent, single issues.
- **Enforceable undertakings** – a legally binding agreement between the regulator and a non-compliant party that the regulator will not prosecute if the non-compliant party agrees to certain actions. As with compliance notices it would be a criminal offence not to comply and there would be a financial penalty for non-compliance. This tool is an alternative to prosecution with the benefit of an opportunity to 'put things right'. We think that this could be useful for recurring or systemic issues.
- **Pecuniary penalties** – non-criminal monetary penalties imposed by the courts. We think these could be appropriate for serious breaches where financial penalties could deter non-compliance.
- **Permit revocation** – the ability to cancel permits. This would only be used for very serious or persistent breaches. Caution would need to be taken with such a compliance action as it may remove the ability of the party to take corrective action.
- **Prosecution and imprisonment** – criminal offences and penalties to effectively deter and deal with the most serious and persistent breaches.

Questions for consultation

35. How can the design of the regulatory regime encourage compliance so as to reduce instances of non-compliance?
36. Is the compliance approach and toolbox, described above, appropriate for dealing with non-compliance within the regulatory regime?

MATCHING BREACHES TO COMPLIANCE OPTIONS

It is important that enforcement options and penalties are applied in a proportionate way to breaches. We also think it is important for there to be consistency with the compliance approaches taken in other regulatory regimes in New Zealand and, where appropriate, other regulatory regimes for offshore renewables internationally.

In the table below we indicate how we might approach matching breaches to relevant compliance options and associated penalties, with breaches that carry higher degrees of harm are dealt with by harsher compliance tools. For the avoidance of doubt, this is intended to be indicative rather than a complete or binding list of breaches or compliance options.

Table 4: Matching breaches to compliance options		
Degree of harm	**Example breach**	**Type of compliance option**
Minor	Late payment of fees Incomplete reporting	Infringement Change in permit conditions Written warning
Moderate	Multiple breaches relating to late payment of fees Failure to provide reporting	Compliance notice Infringement Change in permit conditions Warning
Serious	Unauthorised entry into a safety zone Failure to notify the regulator of a change in control Not holding an appropriate decommissioning financial security Minor submission of false or misleading information Failure to comply with a request for information	Pecuniary penalty Imprisonment and/or fine Enforceable undertakings Compliance notice
Critical	Obstructing an inspection or investigation Not holding a decommissioning financial security or failing to decommission Operating without a permit Submitting materially false or misleading information Damage to or interference with infrastructure	Imprisonment and/or fine Revocation of permit Pecuniary penalty

We consider that it should be possible to combine penalties within the regime; for example, a revocation of a permit could be combined with a pecuniary penalty.

It will sometimes be appropriate for a penalty to be applied to an individual whereas at other times it will be appropriate for the penalty to be applied against a corporation and it will be important for the regime to have the ability to accommodate this.

The legislation could set out statutory defences to each offence, where appropriate, which would include factors such as, but not necessarily limited to, the contravention being necessary to preserve life or prevent damage to property or being beyond a person's control.

CHAPTER 11 CONSULTATION QUESTIONS

In this chapter, we asked the following questions:

- Question 35: How can the design of the regulatory regime encourage compliance so as to reduce instances of non-compliance?
- Question 36: Is the compliance approach and toolbox, described above, appropriate for dealing with non-compliance within the regulatory regime?

Chapter 12: Other Regulatory Matters

This chapter sets out several other matters not covered by previous chapters.

DECISION MAKING WITHIN THE REGIME

There are several relevant considerations regarding how decisions on applications for feasibility and commercial permits might be made.

The first relates to the body that makes the permitting decision. MBIE sought feedback on who should make decisions on feasibility permits in the December 2022 discussion document. Overall, submitters were primarily concerned with maintaining transparent and objective decision making processes whilst partnering with Māori and taking into account wider system impacts. Feedback was balanced with some submitters showing support of ministerial decision making, providing decisions are made in accordance with transparent criteria; other submitters felt decisions should be made by officials to ensure the decisions are as objective as possible.

Taking this feedback into account, we think that it could be important for the body to be equipped with relevant technical and subject matter knowledge; be of a level of seniority that appropriately reflects the significance of the decision; and be protected against short-term or political influence.

We have considered three potential options relating to the decision maker.

Option 1: Ministerial decision

Under this option an appropriately staffed and skilled regulator would provide advice to the Minister to enable the Minister to take a final decision as to whether to grant a permit.

The advantages of this option are:

- it acts as a guarantee that the decision will be taken by an individual with an appropriate degree of seniority to reflect the significance of the decision
- where decisions involve balancing difficult trade-offs, or matters of the national interest, it could be appropriate to have a degree of political accountability.

Option 2: decision by a regulator

Under this option an appropriately staffed and skilled regulator would make permitting decisions.

The advantages of this option are:

- the decision sits more directly with those that have the relevant skills, expertise and capability
- permitting decisions would be entirely within the remit of an independent regulator which may help facilitate consistency of decision making across governments
- limits demands on scarce ministerial time.

Option 3: hybrid model

Under this option the regulator would, as standard, be the decision maker (as in Option 2). However, there would be an option for the Minister to become the decision maker in a specific set of

circumstances. These circumstances could be set out in legislation and could include scenarios in which there are significant national interest considerations and/or where there is a difficult choice between two overlapping applications that both meet the relevant criteria.

The advantages of this option are:

- protects permitting decisions from political influence apart from in a specific set of circumstances.
- allows particularly challenging or higher risk decisions to be taken by someone with political accountability
- limits demands on scarce ministerial time.

We think that, on balance, Option 3 (the hybrid option) could be the most appropriate. Note that while the above discussion relates to the decision making around the granting of permits, there will be many other decisions that need to be taken within the regime which we think should usually sit with the regulator.

Questions for consultation

37. Should the decision maker within the regime be the regulator but with an option for the Minister to become the decision maker in a specific set of circumstances? If not, why not?

Irrespective of which decision making structure is progressed there will need to be an appropriately staffed and skilled regulator to deliver the regime. We canvassed some early considerations in relation to this in our December 2022 discussion document and, while we are not seeking further views on this through this consultation, work will be progressed on this matter alongside the development of the regulatory regime

NOTIFICATION AND CONSULTATION

As set out in Chapter 7 there will be thorough engagement requirements between developers and relevant iwi and hapū, both at the feasibility and commercial stages. The considerations in this chapter will not impact these requirements.

However, there is also a question as to whether decisions on both feasibility and commercial permits should include public notification and consultation requirements, beyond iwi and hapū.

We propose that, at a minimum, applications for and decisions on both feasibility and commercial permits should be made public so that interested stakeholders can be aware that development is taking place. It could also be appropriate for the regulator to hold and keep up to date a public database of all permits and applications.

The commercial permit decision has the potential to be a nationally significant decision. We therefore think it is important that interested parties have an opportunity to express views and have any concerns taken into account. However, we are equally conscious that environmental consenting processes (both under the RMA and EEZ Acts) already include processes for public submissions. We consider it important to try to avoid any unnecessary duplication or repetition of these processes.

Option 1: notification only

Under this approach there would be notification of application and award of both feasibility and commercial permits. Stakeholders would have an opportunity to submit their views on a development through the environmental consenting process(es), but there would be no additional opportunity to input through the permitting process itself.

The advantages of this approach are:

- it avoids administrative costs associated with resourcing the review of submissions which may overlap with the environmental consenting process(es)
- it would likely make for a more streamlined decision making process with faster decisions
- there may still be an opportunity for public submissions on development through the consenting process.

Option 2: public consultation

Under this approach the notification would be the same as in Option 1. However, as well as being notified, stakeholders would have an opportunity to submit on the commercial permit decision by making a submission to the regulator between application and award. This would not impact the ability for stakeholders to submit through the relevant environmental consenting process(es).

The advantages of this approach are:

- it would maximise the opportunity for interested stakeholders to have their views heard and considered
- it would give the regulator responsible for permitting decisions an opportunity to hear a wider spectrum of views.

Overall, we consider that it is important for local stakeholders and the public to have an opportunity to have their views considered. However, if this can be achieved sufficiently through the consenting process, we would not want to duplicate this.

We do not have a preferred option at this stage and would like to hear views through this consultation process.

Questions for consultation

38. Should there be an opportunity for public submissions on the commercial permitting decision? What would this capture that the environmental consent decision does not? If not, why not?

APPEALS

We propose that there should be a route to appeal some key permitting decisions. This could include key decisions such as a decline of a permit application or the revocation of a permit. Such appeals could be considered by a court of appropriate jurisdiction or an independent authority with suitable expertise/jurisdiction to determine such an appeal.

Questions for consultation

39. Should permitting decisions be able to be appealed and if so which ones? Which body should determine such appeals?

TRANSFERS AND CHANGE OF CONTROL SCENARIOS

Ownership structures of permit holders may change over time (e.g. through acquisitions or mergers) or, perhaps less commonly, permit holders may want to sell their interests. This is potentially more likely for a commercial permit than a feasibility permit given the longer permit duration.

These changes can make a material difference to the suitability of the permit holder to progress the development. Therefore, for both feasibility and commercial permits, we consider it important that the criteria and permit conditions continue to be met irrespective of who holds the permit.

We therefore think it would be appropriate for any transfer of the permit to have to be approved by the regulator. We think it could be appropriate that this be the same standard of assessment as the original commercial permit application and, if this standard is not met or adhered to, the regulator would have the right to refuse the transfer.

We also think that it could be appropriate for a change of control scenario (i.e. a material change in ownership) to trigger these same transfer approval requirements. The thresholds for this would be clearly defined in legislation or as a condition of the permit.

Finally, we consider the onus should be on the permit holder to seek approval for the transfer or change of control and that it would be appropriate for any failure to do so to be subject to compliance action. This could be a joint application between relevant parties, the transferor and transferee.

HEALTH AND SAFETY CONSIDERATIONS

Offshore renewable projects are complex, involving very large components which will, to some extent, be assembled at sea. If not managed correctly, this has the potential to be a very hazardous environment.

While the Government supports the development of offshore renewable energy, the health and safety of workers involved in the construction, ongoing operation, and eventual decommissioning of infrastructure is of essential importance. To reflect this, we have added a specific health and safety criterion at both the feasibility and commercial assessment stages (refer to Chapter 5 for further details).

Offshore renewable energy projects will be covered by New Zealand's health and safety legislation. It may be that they also need to be governed by their own, bespoke health and safety regulations, if the existing requirements are not suitable for the nature of operations.

In some high-risk sectors, such as petroleum and minerals, adherence to high health and safety standards is a significant component of a project, including informing the way the operation is designed, constructed and operated. This includes preparing and submitting a safety case or hazard management plan to a health and safety regulator prior to commencing development or starting operations. The purpose of such a plan is to set out how the prospective permit holder intends to manage the hazards of its environment and to ensure the health and safety of its workers and others affected by the operation.

At this early stage, we are interested in understanding what information about their health and safety obligations (including the potential for specific obligations) potential developers would need in order to inform decisions about whether to enter the market.

Questions for consultation

40. What early information would potential participants of the regime need to know about health and safety regulations to inform decisions about whether to enter the market?

THE CASE FOR SAFETY ZONES

The scale and complexity of offshore renewable energy activity may require the creation of restrictions such as safety zones around the infrastructure.

This could be to protect:

- public and navigational safety, for example, to prevent collisions between different vessels or vessels and infrastructure
- protect the environment from any pollution resulting from such collisions
- protect infrastructure from intentional or accidental harm.

However, it is important that this is balanced against freedom of navigation, the interests of other users and the economic interests that flow from this. These other uses might include commercial fishing, aquaculture, tourism and recreational activities.

Other comparable regimes include such zones, but the approach varies from regime to regime. Some examples include:

- **Australia offshore renewables** – in Australia a regulator can impose a safety or protection zone around offshore renewable energy infrastructure of up to 500 metres. The safety zone prevents entry, and the protection zone limits the types of activity that can be carried out within the zone.
- **United Kingdom offshore renewables** – in the United Kingdom the regulator can declare a safety zone of up to 500 metres that prohibits entry and/or limits activity within the zone. Government also publishes guidance which suggests that an appropriate safety zone for key risk periods is 500 metres and for normal operations is 50 metres.

Options analysis for safety zones

If we include safety zones within the regime there will be various design choices:

- ***Size of the zone*** – the United Nations Convention on the Law of the Sea sets a limit of 500 metres around infrastructure which effectively creates a maximum size of safety zone. The CMA uses this full limit as does the United Kingdom for offshore renewables for key risk periods (discussed further below).
- ***Pre-set or discretionary*** – one approach would be to determine an appropriate safety zone size and then provide for an automatic safety zone of this size for all infrastructure. An alternative approach would be to allow developers to apply for zones of different sizes and have the regulator consider these applications on a case-by-case basis.
- ***Temporary or permanent*** – as set out earlier in the document offshore renewables go through various stages of development. At stages such as construction, major maintenance and decommissioning, the case for a large safety zone seems quite clear. The presence of manned vessels, equipment and the moving of very large infrastructure provides a strong case to restrict access to reduce the risk of harm. On the other hand, at times of normal operation, unlike oil and gas, infrastructure is unmanned and does not contain dangerous substances which may reduce the case for a large safety zone.
- ***Enforcement*** – the enforcement options and accompanying penalties need to be sufficient to deter violations.

Considering the above, we set out the below four options for the purposes of extracting stakeholder views.

Table 5: Safety zone options

Option	Description	Benefits	Disadvantages
1	No safety zone	Maximises freedom of navigation Minimises cost to administer	Lack of protection to health and safety of individuals Lack of protection to infrastructure
2	Automatic 500 metres safety zone around all infrastructure, with associated offences for contravention	Maximum protection of health and safety Maximum protection to infrastructure Relatively low cost to administer (when compared to Options 3 and 4)	Maximum impact to other users of the sea and navigation rights

3	Regulator will consider on a case-by-case basis, with associated offences for contravention	Good protection to health and safety Some protection to infrastructure Reduces impact on navigation rights when compared to Option 2.	Some impact on other users of the sea and to navigation rights. Higher admin costs when compared to Options 2 and 4
4	Regulator provides guidance on appropriate safety zone sizes for each development stage but has the flexibility to consider applications for other amounts. For example, this could be something like 500 metres for key risk periods and 50 metres for normal operation. There would be offences for contravention.	Good protection to health and safety Some protection to infrastructure Reduces impact on navigation rights when compared to Option 2 Lower admin costs when compared with Option 3 Clearer for participants than Option 3	Some impact on other users of the sea and to navigation rights. Higher admin costs when compared to Option 2

We do not have a preferred option at this stage, but consider that Option 1 is unlikely to provide sufficient health and safety protections. Option 4 could be a good balance between different interests, but we are interested in views from stakeholders.

The above is focused on offshore wind as the most mature technology. The same principles would be expected to apply to other offshore technologies such as wave and tidal, but the appropriate geographical reach of zones is likely to change.

Finally, there would need to be clear processes in place to raise awareness of safety zones once created. This could include requirements such as Gazette publication, notification to harbour masters of ports and publication in major fishing journals.

Questions for consultation

41. What are your views on the approach to safety zones including the trade-offs between the different options presented?

TECHNOLOGIES BEYOND WIND

As set out in Chapter 2 offshore renewable energy refers to any type of infrastructure placed in or on the sea, and that generates energy from wind, ocean currents, light or heat from the sun, rain, and geothermal heat. Offshore wind is the most mature technology which we understand to be commercially viable at a large scale but other forms of offshore renewables such as solar, wave and tidal energy are also in development.

Our aim is to create a regulatory framework that can be applied to all offshore renewable energy technologies equally without impeding development of new technologies or their entry into the market. We consider this is important to meet our objectives set out in Chapter 2 and to ensure there are no regulatory gaps that could adversely impact New Zealand's national interests or obligations under Te Tiriti o Waitangi / Treaty of Waitangi.

Many of the proposals discussed in this paper have been developed with a focus on offshore wind, reflecting the maturity of that technology. However, we consider it important that:

- our legislation is agnostic to technologies and sources of renewable energy
- any technology-specific detail is elaborated on through secondary legislation and/or accompanying guidance
- our legislation is future-proof and flexible enough to enable new technologies to be developed and permitted
- we avoid any chilling effect or advantage on one renewable technology over another.

Given other technologies are still in early stages of development it is difficult to understand how these proposals would impact their development and operation in New Zealand. Our initial view is that the proposals in this paper would create a foundation from which to consider other technologies and secondary legislation and/or accompanying guidance could be developed to elaborate on detail such as the criteria applicable to different technologies.

Questions for consultation

42. Do you have any views or concerns with the application of these proposals to other offshore renewable energy technologies?

CHAPTER 12 CONSULTATION QUESTIONS

In this chapter, we asked the following questions:

- Question 37: Should the decision maker within the regime be the regulator but with an option for the Minister to become the decision maker in a specific set of circumstances? If not, why not?
- Question 38: Should there be an opportunity for public submissions on the commercial permitting decision? What would this capture that the environmental consent decision does not?

- Question 39: Should permitting decisions be able to be appealed, and if so, which ones? Which body should determine such appeals?
- Question 40: What early information would potential participants of the regime need to know about health and safety regulations to inform decisions about whether to enter the market?
- Question 41: What are your views on the approach to safety zones including the trade-offs between the different options presented?
- Question 42: Do you have any views or concerns with the application of these proposals to other offshore renewable energy technologies?

List of abbreviations

CfD	Contract for differences
CMA	Crown Minerals Act
December 2022 discussion document	*Enabling Investment in Offshore Renewable Energy*, MBIE's first discussion document on offshore renewable energy regulations[2]
EEZ	Exclusive Economic Zone
EEZ Act	Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012
EPA	Environmental Protection Authority
ERP	The Government's first *Emissions Reduction Plan*, published in 2022
GW	Gigawatt
MBIE	Ministry of Business, Innovation and Employment
MW	Megawatt
MWh	Megawatt hour
OIA	Official Information Act 1982
RMA	Resource Management Act 1991
the Minister	The Minister of Energy and Resources unless stated otherwise or referred to in relation to other regulatory regimes
TSO	Transmission System Operator, in New Zealand this is Transpower
VADE model	Voluntary, Assisted, Directed and Enforced methods of compliance

Glossary

Environmental consents	A collective term to refers to resource consents under the Resource Management Act 1991and marine consents under the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012.
Exclusive Economic Zone	The area of sea beyond and adjacent to the territorial sea and up to 200 nautical miles.
Coastal Marine Area	The area of sea from the line of Mean High Water Springs to 12 nautical miles off the coast.
Territorial Sea	The area of sea between the low water mark and 12 nautical miles around the coast of New Zealand.
Just Transition regions	A 'Just Transition' in New Zealand is a strategy to move a region toward a low carbon future. It is about a region leading their own transition to ensure that the impacts and opportunities that may arise from the transition are more evenly distributed. You can find more information on Just Transitions on the MBIE website.
Levelised costs of electricity	A measure of the average net present cost of electricity generation for a generator over its lifetime. It is generally used for investment planning and to compare different methods of electricity generation on a consistent basis.
Management Plan	A management plan details activities, how they will be carried out and over what timeline this will be executed.
Offshore renewable energy	Any type of infrastructure or technology placed in or on the sea, and that generates energy from wind, ocean currents, light or heat from the sun, rain, and geothermal heat.
Developer-led approach	Developers of offshore renewable energy lead the identification of areas for developments by conducting feasibility assessments and gathering the necessary information, as proposed in the December 2022 discussion document.
Use it or lose it provisions	As described in the December 2022 discussion document, this refers to the principle that if a permit holder is not using their permit to make progress against their key milestones their permit may be revoked.
Kaitiaki	A trustee, minder, guard, custodian, guardian, caregiver, keeper, steward.
Iwi	Māori tribe, a whakapapa based kinship groupings that is generally made up of several hapū that are all descended from a common ancestor.
Hapū	Clusters of whānau (families) where the whānau is usually an extended family grouping consisting of children, parents, grandparents, and other closely related kin.

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