ARUP

Submission on *Developing a Regulatory Framework for Offshore Renewable Energy*

Name	
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Release of information

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Chapter 4: Further detail on feasibility permits	
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?**
	Yes. The open-door policy should include public notification, and a limited timeframe for contesting applications to be notified and then submitted. Government should plan for subsequent permit application rounds (especially once a centrally-coordinated spatial planning approach is implemented), but we agree that after the first round there may not be sufficient interest to trigger a second round for some time.
2	**What size of offshore renewable energy projects do you think are appropriate for a New Zealand context?**
	The scale of the offshore renewable energy projects that will be appropriate, or considered to be viable to the industry, will be subject to several key factors. These factors have been in play within the growth of the neighbouring Australian offshore wind market and include: - **Distance to major supply chains:** The significant distance of projects from the wider global supply chain (for Australia) has driven developers to try to improve the economies of scale, by reducing the proportionally high mobilisation costs. This has increased the project scale towards ~2GW to maximise the efficiency of delivery costs. - **The growth of turbine sizing:** The power (MW) of Original Equipment Manufacturer (OEM) wind turbine sizing continues to increase, driven by the competition from the OEMs to help reduce the industry Levelised Cost of Energy (LCoE). This in turn means that the scale of the major commercial scale projects also increases, with the number of turbines being installed staying at a relative parity. - **Grid capacity and renewable energy zones:** The scale of the renewable energy ambitions and the capacity for the wider grid capacity reinforcement is another key factor that will need consideration. The scale of the projects needs to be compatible with the wider grid reinforcement and long-term planning around renewable demands for other industries Green Hydrogen production, transportation electrification etc. Without undertaking modelling, we do not have a definitive view on how these factors will play out in New Zealand, however observationally projects are likely to be in the 500-1500MW range initially, trending larger in the coming decades. This should not necessarily rule out smaller or larger projects. In aggregate, we believe New Zealand is ripe for ~3GW of offshore renewables development in the North Island over the next ~10 years.
3	**Do you think the maximum area of a project should be put forward by developers and set out in guidance material, rather than prescribed in legislation? If not, why not?**
	Yes, put forward by developers and set out in guidance material that can subsequently be revised as appropriate. Other stakeholders (notably Transpower) should also be consulted once initial developer input has been taken. The guidance material should also emphasise that

these maximums are guidance that can be overruled (within reason) provided there is sufficient justification in terms of e.g. national interest.

We recommend that government also consider other types of maximums which may be pertinent for inclusion in guidance, such as electrical capacity (MW/GW) which will be relevant in terms of a project's impact to the wider electrical system. We note that the relationships between different "size" metrics and their appropriate limits will change due to e.g. developments in OEM technology, deployment of alternative renewable energy technologies, growth in New Zealand's total electrical system, etc.

It should be possible for a developer to demonstrate an efficient use of an area in terms of turbine spacing (to account for internal and external wake effects) while also supporting coexistence with other uses and users such as commercial and recreational fishing. Therefore, a scheme that is more efficient (e.g. uses a smaller area to generate equal output) should be considered of higher merit.

The final issues of size are that a developer needs to be aware of their ability to export power either to the grid or via another offtake. If there is not the capacity or demand, then there should be no need to over-develop offshore.

Note also that there may be merit in allowing feasibility permit applications covering an area slightly larger than the minimum required for the desired wind farm electrical capacity (since the outcomes of the feasibility stage may dictate that some parts of the permit area are more favourable than others).

Chapter 5: Commercial permits

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?**
	Yes, we agree that the approach outlined in Option 2 is sensible. Developers should provide input as to the appropriate conditions for triggering this mechanism, methods of discouraging its use for frivolous or obstructive purposes, and timescales for the competing developer to notify and then lodge their competing application for commercial permit.
5	**Are the proposed criteria appropriate and complete? If not, what are we missing?**
	Broadly yes – the criteria are understandably somewhat high-level in the consultation document, but we presume they will be further detailed by the regulator in the design of the actual permit process with input from appropriate stakeholders. We have strong capability to support this further detailed development, having undertaken extensive work previously for governments in Australia and the UK as well as the World Bank. We would welcome the opportunity to provide similar support in New Zealand. We would like to direct you to the above-mentioned document we prepared for the World Bank, available here, which several governments have referenced globally to replicate the success factors in establishing an offshore wind industry.

	Under the heading “readiness of the project”, there should also be consideration of supply chain readiness such as turbine components, construction ports infrastructure etc. Under the heading “national interest” the points outlined are very broad. For avoidance of doubt we would suggest that this assessment include consideration of foreign ownership/control, national energy security, and any matters of national environmental and/or cultural significance (unless these matters are comprehensively assessed under other headings and/or via the RMA / EEZ environmental consenting processes).
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?**
	Yes, however the wide range of possibilities and complex nature of potential deviations would make it impossible to prescriptively detail these mechanisms in advance. A key factor would be the developer's accountability to the project’s Management Plan. This should be updated, and its performance monitored, with independent auditing on a periodic basis. The Management Plan could typically cover (among other matters) the design, infrastructure integrity and maintenance of licence infrastructure, environmental management, work health and safety, emergency management, record keeping, and consultation activities and outcomes. The relevant regulations should therefore be based on broad/general provisions for the lifetime reporting to be agreed as part of the commercial permit with a focus on high-risk commitments, and reasonableness tests for any deviations. In the event that the regulator and developer/operator cannot agree on the acceptability of deviations, it will ultimately fall to the courts to arbitrate.
7	**Is 40 years an appropriate maximum commercial permit duration? If not, what would be an appropriate duration?**
	We believe this is a sufficient maximum for the initial permit. Guidance should be clear that granting the maximum duration is not “near-automatic” and that there is some onus for developers to demonstrate an intent / need / capability to utilise the duration they are applying for. However, including time-extensions to the original permit, we do not see a need for legislation to presume the maximum economic life of projects. Internationally we are seeing cases of offshore wind farms looking to significantly extend their economic operating life via turbine replacement. We also note that other technologies may have different economic lifespans. Similar to geographic extensions, the nature and scale of the extension should dictate the permitting route via a reasonableness test (for example: is it a one-year extension to allow additional time for proper decommissioning, or a 20-year extension involving major asset overhauls).Naturally projects will tend to find it increasingly difficult to justify extended permits beyond a certain point (economically, environmentally, in comparison to alternative uses etc), but there is no need for the permitting regime to prejudice this assessment by prescribing a hard limit.
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?**

There should be a reasonableness test to determine whether an increase in geographical area falls under a modification to the initial permit, or an entirely new permit. For example, an increase of 5% during the design stage would reasonably be a permit modification, with a correspondingly lower bar for approval; meanwhile a tripling in size after operations commence, or repeated small increases, would trigger a completely new permit.Increases to any other permit metrics (e.g. electrical capacity – see our response to Question 3) should be treated similarly.

However this is enacted, care should be taken that this does not compromise the "use it or lose it" principle (i.e. by resetting the clock when it should reasonably continue, or vice versa).

A natural and key issue would be the environmental, social, physical, cultural, and cumulative impact of extending development. If the extension is within a wider 'declared area' that has been subject to Strategic Assessment (as per the UK and Ireland) then the ability to extend should be streamlined. If it is outside of such an area, or if the Government does not progress with a Strategic Assessment mechanism, then the developer will need to assess (and mitigate) the impact as a minimum, noting that the dynamic nature of the marine environment means any cumulative impacts could operate at scale over a large area. A second key factor would be the ability to show that the extension would not unduly conflict with another developer, use or user. A final key factor would be for the developer to show they have the financial and technical resources and capability to adequately mange an increase in operation. That all said, the process of extension should be more streamlined to focus on key issues relative to the change rather than submitting an entirely new permit.

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?**

We believe so, however allowing R&D and demonstration projects to completely bypass the commercial permit process may not be appropriate (since there would then be no mechanism for ensuring matters such as environmental impact, cultural impact, user conflict, health & safety, and decommissioning, are appropriately handled; bear in mind that even "small" demonstration projects will still be significant undertakings).

Rather, the "commercial" permit process should be designed to respond flexibly to non-commercial projects, with some of the tests being waived as not applicable.

This could also allow a more natural pathway for initial demonstration projects to be expanded or adapted to commercial operation where suitable (as described earlier a reasonableness test would dictate whether this entailed a permit extension/modification or a new permit).

Alternatively, if simpler to implement, a "non-commercial" permit type could be established, with the principles being similar to the above. This is the mechanism being promoted in Australia.

Chapter 6: Economics of the regime

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?**

	It is well understood that the development cost of an offshore wind project is typically high, and somewhat prohibitive, with payback only happening during the commercial phase. To overcome this Governments typically offer Contracts for Difference or other financial mechanisms to help attract more developers. "Established offshore wind markets, such as those in northern Europe, typically have wholesale electricity markets. In these countries, the revenue support mechanisms have been designed to give developers a known and guaranteed power purchase price, typically for a period of 15 to 20 years. Developers value the revenue stabilization provided by Governments, as it helps them manage revenue risk and reduce [Levelised Cost of Electricity (LCOE)]" (World Bank, 2021). It would potentially make any project commercially infeasible if the reverse was true and revenue was gathered, with the projects indirectly generating revenue in the local supply chain (anywhere between 10 and 50% during the operational phase). The only charging mechanism would be if the Government built and owned the export infrastructure, where it could charge an export tariff. In summary for the industry to be successful the Government would need to offer revenue support to reduce the LCOE.
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?**
	This needs to be looked at carefully. The onshore renewable opportunity in NZ is much more mature and advanced and has historically had a lot of subsidy. The offshore renewable opportunity is emerging and will need be support as it develops. This will also signal to the international market that NZ government is serious about the offshore wind opportunity in NZ. One characteristic of offshore renewables that may merit (rather than require) support is that the impacts tend to be lower than onshore in many ways (for example land use and visual & noise amenity). As such, a support mechanism would offer a coarse means of quantifying these externalities. The nature and risk profile of offshore renewables and their size, typically being anything between 5 and 20 times an equivalent (single) onshore project, means that in absolute terms greater quantities of capital are at risk and could therefore be harder to reach Final Investment Decision (FID) and financial close.
12	**Should there be a revenue flow back to government? And if yes, do you have views on how this should be structured? For comments on potential flows to iwi and hapū please refer to Questions 14 and 15.**
	As noted under Section 10, the revenue flow back to Government comes from within the supply chain where there is strong evidence that the offshore wind (OSW) industry drives secondary and tertiary economic benefit to the National economy and local community. This benefit is experienced within the economy rather than being a revenue stream to Government. A second element is that OSW offers and opportunity to develop the National Interest, through enabling knowledge sharing, education, training, and development across multiple sectors and industries and creating an economic hub. A good reference here is the Star of the South Jobs Guide[1]. It is also essential that the industry promotes Māori enterprise, partnership, collaboration and development.

	[1] https://www.staroftheSouth.com.au/jobs-guide
13	**Do you agree with the proposed approach to cost recovery? If not, why not?**
	Broadly yes. It may be appropriate for commercial fees to be proportional to the generating capacity rather than geographic area – this could better align the fees with benefit to the participant. Application fees could include a fixed and proportional component. (The administrative burden to assess a feasibility permit for a 10MW demonstration project would be less than the burden to assess a feasibility permit for a 500MW commercial project, but not by a factor of 50!)
Chapter 7: Māori Rights and Interests and Enabling Iwi and Hapū involvement	
14	**Is there anything you would like us to consider as we engage with iwi and hapū on Māori involvement in the permitting regime?**
	Diagram 4 indicates "monitoring and enforcement where necessary" during feasibility assessments and operation stages. Consider how this process should be designed to give appropriate opportunities for Māori to take part in the monitoring and provide input, without unduly burdening iwi & hapū resources or hindering developers' ability to undertake consented activities. Building on Question 11, partnership with mana is key and is a requirement of the Treaty of Waitangi / Te Tiriti o Waitangi. Māori involvement can be from a kaitiakitanga and also a Māori enterprise perspective. This could include co-development of projects, survey methods, and outcomes that respect the environment's sociocultural and spiritual values. Secondly, it should be possible to embed traditional knowledge into design outcomes. Finally, there are emerging and practiced examples of how projects will facilitate knowledge sharing with First Nations people in Australia, while also offering means to sponsor and train First Nations peoples and businesses in the industry and supply chain.
15	**Have we identified the key design opportunities to work collaboratively with iwi and hapū alongside consultation? Is there anything we have missed?**
	Yes, you have. We support the cost-recovery permit fee structure including a component to resource iwi & hapū involvement in the decision-making process. It is critical that iwi and hapū are resourced appropriately so that they can be enabled to actively participate. Funding of iwi & hapū involvement to actively partner and engage in the whole project life cycle including in consultation during developers' feasibility assessments should also be considered (i.e. Māori with existing rights and interests should not be at risk of losing those rights and interests unless they volunteer their time for consultations).

	It will also be critical that information about Tiriti / Treaty obligations for partnership are made clear to developers, many of whom will be foreign entities with little or no prior experience with any similar model.
16	**Are there any Māori groups we should engage with (who may not have already engaged)?**
	Offshore wind provides an opportunity for all mana whenua to get involved as kaitiakitanga and also from a Māori enterprise perspective. There needs to be a way for hapū and all Māori to be involved.
Chapter 8: Interaction with the environmental consenting processes	
17	**For each individual development, should a single consent authority be responsible for environmental consents under the Resource Management Act 1991 and the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012? Why or why not?**
	Yes, this would ensure consistency in approach and provide much-needed certainty to developers / investors. For the same reasons, the timelines should be aligned between environmental consents and feasibility / commercial permits as far as reasonably practicable, and the respective regulatory consent authorities should be empowered and encouraged to work together in assessing applications.
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?**
	There will need to be careful consideration of the way the permitting regime integrates into the wider RMA / EEZ process and approvals to make sure there are no gaps or duplications. Developers require certainty as to how projects will be assessed for compliance with consent and permit criteria. Lessons should be learned from Australia and the UK with the permitting and consenting interface. Arup has been part of the permitting and consenting process in Australia and UK and would be happy to share lessons learned with MBIE on this.
19	**Should the offshore permitting regime assess the capability of a developer to obtain the necessary environmental consents? If not, why not?**
	Yes – if a developer has no capability (and cannot build capability in time) to obtain environmental permits then they would be wasting everyone's time applying for an offshore permit and potentially tying up geographical permit area. This need not be an overly onerous or detailed assessment, and can be a simplistic preliminary hurdle or gateway to rule out further assessment of any low-quality proposals that fail the environmental "sniff test".
20	**What is the optimum sequencing between obtaining feasibility permits, commercial permits and relevant environmental consent(s)?**
	Developers will likely want to obtain environmental consents at the same time (or as close as possible) as the associated feasibility or commercial permit. As such, authority assessments will in practice almost certainly proceed in parallel regardless of any imposed rules on the timing of

when approval is ultimately **granted**. For this reason there is little benefit in prescribing a particular order, and instead the approval authorities should simply aim to align assessment timescales and work closely together during their respective assessments.

Allowing flexibility in the sequence will also allow for the possibility that developers may need to apply for more than one "set" of environmental consents for different activities throughout the project life. The complex nature of offshore projects means these activities may resist clear-cut categorisation between different stages such as "construction", "operation", "maintenance" etc.

We note also that the commercial permit and Final Investment Decision (FID) should ideally be as close as possible, and recognise that there is a "chicken-and-egg" situation with each ideally wanting the other to be in place first. Consideration should be given to how this can be resolved.

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?**

There may be merit in adopting a national consent framework for major infrastructure projects of potential national significance. This would see a national government body as the ultimate approval authority and relevant local/regional councils (among others) as stakeholder parties to the consultation process. Such a framework could potentially encompass major offshore renewable energy projects directly, as well as enabling projects in enabling areas (such as e.g. electricity generation and transmission). This would reduce the approvals burden for local/regional councils to have specialist expertise in assessing these projects, while also allowing benefits of broader national importance to be appropriately weighted against local considerations such environmental impacts, amenity, cultural heritage, safety, employment etc.

Where projects cross boundaries and require multiple environmental consents, the corresponding environmental impact assessments should include an appraisal of the trans-boundary impact at the interface between zones (e.g. Territorial Sea vs EEZ).

The second challenge is about data gathering and ownership. The experience and recommendations in the UK adopted in Round 2 of their licencing process involve the Government preparing a Strategic Environmental Assessment over the effective declared area, backed by centrally gathered data. This prevents excessive data gathering (as happened in the UK in Round 1 and its likely to happen in Australia). It also allows the Government to credibly appraise the total impact of developing the offshore area, as multiple offshore wind farms have credible cumulative and interactive impacts that operate at scale over the marine environment, again something that was not appreciated in the UK under Round 1. A similar approach may prove valuable if/when the permitting regime transitions to a centrally-planned spatial zoning system.

The most effective forms of marine impact assessment are developers needing to 'prove absence' of key mega and migrating fauna. This approach is again typical in other parts of the world and respects mobility and transient nature of the marine environment. That said, there are now a series of effective passive methods to assess the quality of the marine environment including remote sensing techniques, use of block-chain analysis, and environmental DNA,

	which have helped overcome some of the challenges of identifying the resource in the marine environment. A final note would be to have iwi and hapū help inform and guide elements of the marine assessment as the kaitiaki of the oceans and foreshore. This is also a requirement of the Treaty of Waitangi / Te Tiriti o Waitangi.
22	**How should the factors outlined influence decisions to pursue offshore renewable energy developments in the Exclusive Economic Zone or the Territorial Sea? Are there other factors that may drive development in the Exclusive Economic Zone versus the Territorial Sea?**
	With the initial developer-led approach, developers are best placed to determine optimal locations for the first tranche of projects. To enable a centrally-planned approach in future, a dedicated workstream will be required for government to build capability in determining appropriate locations for projects and/or declared zones. We recommend this internal capability be complemented by developer consultation, use of private-sector consultants, and engagement with other appropriate existing stakeholders such as iwi and hapū. Without wanting to pre-empt detailed feasibility work, additional considerations for siting offshore renewable projects include: • Amount and nature (e.g. intermittency) of wind or other natural resource; • Water depth and seabed geotechnical conditions, which impact a range of matters including fixed vs floating technology, foundation design, cable system etc; • Proximity to ports, both for construction and ongoing operations; • Proximity to existing transmission infrastructure.
Chapter 9: Enabling transmission and other infrastructure	
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?**
	Yes, although the arguments presented in favour of a TSO-led approach are not compelling, particularly in a New Zealand context where there is little precedent for this (only the HVDC link). The only significant potential advantage of a TSO-led approach, is that it could be complementary to joint infrastructure (discussed below) and/or a government-led, spatially-planned permitting environment. These same benefits are potentially available to developers collaborating in a joint venture or similar structure, but are harder to realise as noted later in the consultation document.
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?**
	In general we believe developers are better placed to build offshore connection assets (subject to commentary above about some potential benefits to TSO-built in situations where the connection infrastructure is shared). We do not see a reason why existing processes cannot provide flexibility to accommodate developer construction of these assets. There may be some complications in the consenting

	(both RMA and EEZ Act would potentially apply as noted elsewhere in the consultation document), but these issues are likely to arise in some capacity regardless and developers are reasonably well-equipped to tackle them.
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?**
	We have nothing major to add to what is already outlined in the consultation document. Developers will ultimately need to weigh up the potential benefits and risks. Naturally a government-led, spatially-planned permitting approach (especially with TSO-led infrastructure) would address at least some of the barriers, but with other tradeoffs as already identified.
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?**
	Yes, we agree with the challenges presented; developers may be willing to support the cost of front-loaded upgrade planning. A centrally-coordinated and spatially-led approach would give the TSO much greater certainty to facilitate upfront planning work.
27	**What changes might be needed in order to deliver the types of port infrastructure upgrades needed to support offshore renewables?**
	The scale of offshore components (e.g. wind turbines, foundations and corresponding vessels) mean that appropriate port infrastructure upgrades and heavy lift, land-backed facilities need to be established to support the construction of the early and future offshore renewable energy projects. These construction ports are required for the storage and the assembly of components to enable efficient and safe installation offshore. The construction ports require a significant number of components to be stored in a port within optimal sailing distance to the site. The characteristics and types of works to develop a **construction port** depending on the current existing infrastructure can cost hundreds of millions of dollars, with greenfield sites requiring an even larger scale, in the order of a billion dollars or more in investment. A high-level breakdown of the nature of works required are: - **Navigation Fixed & Floating:** The facility will need deep navigational channels to support the installation and transportation vessels, or floating substructures to safely navigate through the channels from the port designated facility to the offshore site. *Types of works: Channel dredging – widening, deepening, or extending.* - **Berth pockets Fixed & Floating:** The berth pockets will need to be formed (dredging exiting or developing new berths) to allow the transportation and installation vessels to be accommodated at the berth - requiring bed preparation for jack-up vessels (fixed), or grounding of floating substructures (floating). *Types of works: Berth pocket dredging – widening, deepening, or extending – as well as any ancillary support to enable the increased retained height. Bed preparation with engineered material.* - **Wharf/quay apron Fixed & Floating:** Will be required (strengthening or developing) to enable roll-on-roll-off (Ro-Ro) activities and lifting operations for handling in-bound

and outbound components, as well as tower pre-assembly at the load-out quay. For floating wind this will also likely require the heavy lift capability to support a large ringer crane for the turbine integration at the berth.
Types of works: Strengthening of the quay walls, or development of new quays (greenfield, or in front of existing quays) to support increased retained height. Developing relieving slab or heavy lift foundation to support wharf heavy lift activities.

- **Landside Fixed & Floating:** The landside area will also require high bearing capacity to enable the efficient storage and movement of the components. The components include: turbine (fixed and floating), or foundations (fixed and floating), inter-array cables (fixed and floating), or mooring and anchors (floating). The scale of the land area is in tens of hectares and require a clear site with direct access to the quay.
Types of works: Consolidation, or strengthening and levelling of the ground to enable the variable storage of components .
- **Wet Storage Floating:** The advent of floating offshore wind elsewhere in Australasia and the need to develop commercial scale projects has resulted in the need to store a number of the floating substructures prior to installation within the water (Wet Stored).

For ports to be able to deliver the upgrades necessary for the Construction Phases of the OSW projects there will need to be a high capital expenditure upfront. In order for the ports to be able to fund these levels of investment there will likely need to be support from the Private and Public sector to bridge the investment gap.

Ports supporting ongoing **operation and maintenance** will have different requirements, but for the main operations and maintenance base will be governed by either the use of Service Operation Vessels (SOVs), and/ or Crew Transfer Vessels (CTVs). The port facilities will need to critically be located to minimise the travel time for personnel to get to the offshore assets.

The key elements required for the Operation and Maintenance Base will be:

- **Landside Operational Building and Warehousing:** The port will need to provide an area to be leased for the duration of the OSW lifecycle to enable the developer to build and operate a building and warehouse facility for the control centre and storage of spare parts (respectively).
- **Quayside Berths:** Depending on the vessel type(s) used the facility will be required to provide a number of permanent berths for the SOV and/or CTV vessels for 24-hour access and safe load-out of personnel and minor components to the offshore windfarm.

The port developments for O&M are such that the types of upgrades can likely be funded by a combination of investment from the port and the Developer(s) that are successful in obtaining a licence application and reaching FID. There are potential efficiencies and benefits in the pooling of investment and, or support of development of an O&M hub to promote effective use of the infrastructure and scale to meet the growth in demand.

Chapter 10: Decommissioning

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?**

	Yes. Similar to Tui oil field, note lessons learned from the Australian oil & gas sector which required reforms to this effect, after decommissioning responsibility for the Northern Endeavour facility fell to the government following liquidation of the NOGA group.
29	**Should the permit decommissioning plan, cost estimate and financial security be based on the assumption of full removal? If not, why not?**
	Initially yes – alternative outcomes (e.g. asset repurposing) cannot be assured far enough in advance and should be viewed as an improvement above baseline. However there could be a mechanism for this to be reviewed as projects approach final decommissioning; if a developer can demonstrate certainty in an alternative decommissioning pathway then the cost estimate and financial security could be amended accordingly.
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?**
	We have no specific comments to add.
31	**What should the developer be required to provide in relation to decommissioning at the feasibility application stage?**
	1. A basic demonstration of decommissioning capability. 2. A suitable decommissioning plan for any assets/infrastructure to be installed in the feasibility stage (e.g. Metocean equipment), and financial securities if the infrastructure exceeds a set CapEx threshold. a. In many cases the nature of feasibility-stage assets will mean that decommissioning plans can be quite basic and financial securities unnecessary; however the regulatory framework should cater to the potential for unusual or unforeseen asset types (e.g. for offshore renewable technologies other than wind, or for R&D / demonstration projects if those are allowed to bypass the commercial permit framework).
32	**What ongoing monitoring approach do you think is appropriate for the decommissioning plan, cost estimate and financial security?**
	We recommend every two years during construction and in the six years leading up to final decommissioning, and every five years during normal operation. As noted, any material ad hoc changes should also trigger a review, however there should be an opportunity for a developer to demonstrate/argue that a full review is not necessary to avoid the process becoming overly onerous.
33	**Are there any other ways in which the regulatory regime could encourage the refurbishment of infrastructure or the recycling of materials?**
	By allowing decommissioning plans, cost estimates and financial securities to be amended as projects approach final decommissioning (as noted in our response to Question 29).

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? If not, why not?**
	Yes. There should be a mechanism to ensure the same decommissioning plan is used as the basis of both the environmental consent and the cost estimate / financial security.
Chapter 11: Compliance	
35	**How can the design of the regulatory regime encourage compliance so as to reduce instances of non-compliance?**
	We have no specific comments on this.
36	**Is the compliance approach and toolbox in Chapter 11 appropriate for dealing with non-compliance within the regulatory regime?**
	In our view, yes.
Chapter 12: Other regulatory matters	
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?**
	No, we recommend a regulator as the decision authority in all cases (Option 2). The higher-stakes exceptional situations described under Option 3 are even more critical for decisions to be undertaken with relevant expertise, consistency, and insulation from short-term or political objectives.
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?**
	Yes, this would allow submissions to capture additional considerations that the environmental consent decisions does not have the scope to consider. These could encompass all of the decision criteria listed in Chapter 5 (developer capability, project readiness, Māori involvement, decommissioning, energy system impacts, economic development, health & safety, and national interest).
39	**Should permitting decisions be able to be appealed and if so which ones? Which body should determine such appeals?**
	We have no specific comments on this.
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?**

	We have no specific comments on*what* information participants would need. However it is critical that clear regulation and supporting guidance is freely available, to help inform developers enter the market, and send a signal internationally that New Zealand is open to market entrants.
41	**What are your views on the approach to safety zones including the trade-offs between the different options presented?**
	We support Option 4 as the best balance of the various considerations. We also recommend the adoption of Protection Zones (which allow entry but limit the types of activity which can be carried out) in addition to Safety Zones (no entry). This will allow a graded approach that further reduces impact to other users by allowing low-risk activities, without compromising the protection of individuals and assets.
42	**Do you have any views or concerns with the application of these proposals to other offshore renewable energy technologies?**
	We have no specific comments on this, except as already noted in our responses to earlier questions.

General comments

We note that the proposals in the consultation paper tend towards a regulatory framework with multiple permit structures and pathways, consent authorities, stages of assessment etc. While we do not necessarily see this as being a critical flaw, there is certainly a risk that the approvals environment will be seen as too complex, risky and full of red tape. For this reason we recommend that the design of the regulations be undertaken with a constant eye for opportunities to simplify and align wherever possible, ensuring a clear and consistent pathway without undue burden or risk to developers.

As outlined in Chapter 2, we support the initiative to ensure that feasibility data (such as natural resource quality, submarine geotechnical, and flora/fauna) be shared to the greatest extent possible and made available in a public database. Government should consider how best to facilitate and regulate this process.