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CCUS Team

Ministry of Business, Innovation and Employment

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Submission on MBIE consultation on the proposed regulatory regime for Carbon Capture, Utilisation, and Storage (CCUS)

Introduction

1. Energy Resources Aotearoa is New Zealand's peak energy sector advocacy organisation. Our purpose is to enable constructive collaboration across the energy sector through and beyond New Zealand's transition to net zero carbon emissions in 2050.
2. This document constitutes our submission on you consultation relating to the proposed regulatory regime for Carbon Capture, Utilisation, and Storage (CCUS).

Overarching comments

3. Energy Resources Aotearoa has long advocated for enabling legislation to unlock the potential of CCUS in New Zealand. We welcome the Government's willingness to consult more broadly to surface any issues in designing CCUS legislation for New Zealand.
4. Firms active in New Zealand's oil and gas sector are already taking significant steps to reduce their gross carbon emissions and stands ready to do more. New Zealand's total emissions from natural gas and LPG production, processing, transport, and use fell between 2010 and 2021 by 27% while its emissions intensity fell by 18%.
5. Oil and gas producers halved their overall emissions from production over the same period, while production fell only 22% and the sector is 36% more emissions efficient than it was in 2010 (intensity). Even more reductions can be unlocked with the application of CCUS.
6. We take the view that CCUS should be considered a permitted activity in New Zealand, and that enabling legislation should be developed. However, policy settings should remain neutral in terms of support from the Government.

7. Our submission is premised on the necessary regulations and rules that govern carbon removals within New Zealand's emissions trading scheme (the "NZ ETS") being developed as a matter of priority.

Summary of key recommendations

8. In developing enabling legislation for CCUS we recommend the government should;
 - a. avoid any unnecessary duplication and overlap of the regulatory requirements;
 - b. develop a dedicated permitting regime to manage the lifecycle of the CO₂ storage project for industrial emissions and this new regime should prioritise geosequestration as a storage option;
 - c. exclude upstream oil and gas operations that recover and reinject produced and any post combustion carbon dioxide from this legislation as these are normal oil field activities that can be adequately managed through the Crown Minerals Act 1991 ("CMA");
 - d. the government has a clear promotional and education role in enabling CCUS in New Zealand to establish the necessary social license; and
 - e. address the property rights issue for onshore geosequestration projects, where sequestered carbon dioxide migrates through the geological strata creating a potential trespass issue that remains unresolved. We recommend officials give this matter serious attention.

Care is needed not to overcomplicate enabling legislation for CCUS

9. It is important any legislative changes or new legislation developed in New Zealand does not result in overlapping, overly prescriptive and unnecessary regulatory requirements.
10. It needs to be front of mind that the intent of any legislation is to enable carbon capture and storage ("CCS"). It would be easy to overplay the environmental concern and adopt an overly cautious approach to regulation. The primary focus of the legislation needs to be on correct carbon accounting and ensuring any costs avoided through CCS have the appropriate regulatory oversight through monitoring, verification, and reporting.
11. To achieve this, investors will benefit from having a clear understanding of the specific obligations and responsibilities for monitoring, reporting, and any post closure requirements.
12. A system with overlapping regulatory requirements, different regulatory decision-making criteria, and variable standards adds complexity to investment

decisions. The risk is this added complication means we will not achieve or unlock the potential emissions reductions that CCUS offers.

There is no need to reinvent the wheel...

13. The issues facing the government when it comes to allowing and monitoring carbon removal activities are not unique. We urge officials to continue to leverage the approaches adopted in other jurisdictions, and to not reinvent the wheel when it comes to developing the regulatory regime for New Zealand.¹
14. Globally there has been increasing interest in the potential of CCUS to help meet emissions targets. This has resulted in many jurisdictions, including those we often look to for comparison such as Australia, the United Kingdom, and Norway, developing new legislation to manage CCUS activities. We are pleased to see this reflected in the consultation document.
15. A scan of the legislation being developed elsewhere suggests the majority have adopted an outcomes-based approach to this issue. This approach recognises “CCUS as a service” is an emerging sector and that prescriptive approaches may not translate well to a specific project context. This approach also provides CCUS project proponents and regulators the flexibility to adapt and adjust their operating plans and conditions as information is learned or better methodologies become available.

Barriers to geosequestration in New Zealand are largely non-technical

16. To be clear, that does not mean that specific changes to existing legislation will not be required. Indeed, the excellent legal reviews by Waikato University Professor Barry Barton in 2013, and more recently in 2023, surfaced many of the legislative and consenting issues facing CCUS project proponents under current settings.² While we do not intend to relitigate these issues, we agree with the overall conclusion that CCUS in New Zealand would benefit from bespoke, purpose driven legislation.
17. CO₂ handling, that is removal from natural gas streams, transported by pipeline or in solid or liquid form, as well as compression, and injection into geological formations are mature technologies. CO₂ injection into geological formations, often as part of an enhanced oil recovery project, has been happening in the upstream sector since the early 1970's.

1 We reference the IEA's CCUS legal and regulatory database as an invaluable repository for policy approaches adopted in other jurisdictions (available at: <https://www.iea.org/data-and-statistics/data-tools/ccus-legal-and-regulatory-database>)

2 Professor Barton's 2023 and 2013 reviews can be accessed at the following respectively: [here](#) and [here](#).

Social license is key

18. We expect the social license, that is public support for CCUS projects, will remain an ongoing issue for CCUS projects. Unfortunately, the discourse on climate change has become highly polarised, with strong language about an imminent threat from the climate crisis. This means the public is wary of CO₂ emissions from industrial sources as it is widely regarded as a dangerous pollutant. This cements eliminating carbon emissions, rather than capture and storage as the only way forward.
19. While there is clear evidence that carbon emissions from human activities contributes to the accumulation of CO₂ in the atmosphere, it is important any issues surrounding CCUS are not overstated. CCUS needs to be considered for what it is, which is an important tool in the toolbox to help manage and mitigate emissions from our economic activities to meet our net zero emission economy by 2050.
20. While not necessarily a feature of the consultation, we highlight the importance of educating the public on what this legislation is trying to achieve. We see the government playing a significant and important role in this.

Policy settings should be neutral

21. A CCUS project should be able to compete on a level playing field with other emissions management options, including fuel switching or electrification. Energy Resources Aotearoa has consistently argued that mandates and subsidies have the effect of distorting the necessary price signals, essentially “picking winners”. All emissions reductions options need to be able to be evaluated on an equal basis, to ensure a least cost transition to a low carbon economy.³
22. This includes the storage of carbon dioxide is treated in environmental legislation. Barriers to investment in CCUS include high levels of uncertainty surrounding the long-term management, monitoring and liability of storage sites, and treatment of removal activities, other than forestry within the NZ ETS.

Carbon Capture and Storage has three primary elements

23. The primary features of a CCS scheme are the capture of the carbon, whether it is from a point source, primarily industrial emissions, or a diffuse source (e.g. direct air capture), some form of transport mechanism, such as road, rail or pipeline, and finally some form of long-term, durable storage.
24. The range of potential carbon capture, transport, use cases, and storage options means it will be difficult for legislation to adequately cover all combinations and

³ Least-cost being one of the Government’s stated objectives in its recently released climate change strategy. We also refer you to our perspectives note on why a ‘least cost’ approach to net zero emissions is critical (available at <https://www.energyresources.org.nz/dmsdocument/178>)

anticipate novel and innovative solutions in this fast-moving area of emissions management.

25. In our view the capture, transportation, and utilisation of CO₂ can be adequately addressed through the NZ ETS. In essence this is a carbon accounting problem, with many of the issues such as custody transfer able to be managed contractually, or through emissions reporting processes.
26. Therefore, the primary policy issues for officials are ensuring project operators have a clear regulatory pathway and to provide the public with confidence the carbon storage solution is durable, and to the extent possible permanent, through an appropriately robust monitoring, verification, and reporting regime. We believe this can be achieved through targeted new legislation, and limited changes to existing legislation.
27. The key features of this approach are:
 - a. the majority of carbon capture and transportation issues can be managed through emissions reporting and “carbon accounting”. This includes contractual arrangements for custody (liability) transfer and metering;
 - b. upstream oil and gas operations can be adequately managed through the CMA to manage gross emissions as a “normal oilfield operation”; and
 - c. non upstream oil and gas geosequestration of carbon emissions (industrial emissions) is a permitted activity that requires a CCS permit to permanently store CO₂ in geological formations, including where storage includes carbon-storage-as-a-service.⁴
28. We summarise this in Appendix 1 and 2, which provides a simplified overview of how enabling legislation for CCUS projects could be segregated, and a simplified flow diagram for upstream oil and gas operations.
29. Minimising unnecessary regulatory overlap is essential to reduce administrative costs and provide clear boundaries for regulatory responsibility. For example, the CMA already covers decommissioning of oil and gas facilities, including plugging and abandoning any wells. The post closure monitoring and perpetual liability provisions make additional requirements through any new legislation unnecessary. It is unnecessary therefore to have an additional, CCUS permitting regime over the top of an existing Crown Minerals permit.
30. While we appreciate there is significant, ongoing research into new and novel storage solutions, such as mineralisation at surface, we largely confine our

4 This reflects the emerging business model in a number of jurisdictions where a CO₂ storage “hub” is being developed to geosequester emissions from a range of point sources. Net Zero Teesside is an example of this development (see: <https://www.netzeroteesside.co.uk/>)

submission to the regulatory aspects of durable, long-term storage of carbon dioxide in geological formations (geosequestration).

We see a clear need for a dedicated permitting system for geosequestration

31. The design of New Zealand's resource management legislation deliberately separates the decision making and management of environmental and social effects expected from any expected benefits. This approach is intended to minimise the need for decision makers to weigh the trade-offs between economic benefits and environmental impacts.
32. An important feature of this approach is the classification of activities as either permitted, controlled, discretionary, or prohibited.⁵ In this way the resource consenting process can, in theory, take an approach that evaluates each application on its merits.
33. In reality, authorities typically favour a precautionary approach when granting resource and marine consents, often with strict and onerous conditions that are not proportionate to the risks to human health and safety and the environment. This precautionary approach adds considerable cost and time delays to projects.
34. Another issue with the current regulatory settings is that it is difficult for consenting authorities to take a lifecycle approach to economic activities. Essentially, project proponents seek consents to build, consents to operate (e.g. discharge consents), and consents for decommissioning and restoration activities. In our view this is a major shortcoming of the current approach.
35. Resource and marine consents are best suited for managing activities as they are occurring but are not ideal for managing the lifecycle of a project. For long-lived projects where there are ongoing monitoring and potential financial risk there are better ways to manage these risks and obligations. Leveraging the example of the CMA, dedicated legislation that provides exclusive rights to undertake a specified activity in a defined geographical location provides the necessary continuity for permit holders and regulators through the lifecycle of a project.
36. In our view we believe this approach would work well for carbon capture and storage projects where CO₂ is to be stored in geological strata. Underground storage requires an exclusive access to the suitable structure. This exclusivity is required as the shared use of a suitable structure may have the potential to create unnecessarily complex monitoring issues, with overlapping liability assignment.
37. The requirements for such a regime would establish geological storage of carbon as a permitted activity, which requires a permit to undertake such activities, as

5 In reality there are 6 different categories; permitted, controlled, restricted discretionary, discretionary, non-complying, and prohibited.

well as the exclusive right to do so in a geographically defined area. The latter point is important as it relates directly to what factors are within the control of the permit holder. For example, where two or more projects are injecting CO₂ into the same strata for storage purposes, this creates an unnecessary complication of multiple parties having liability for monitoring and reporting post closure.

38. To be clear, our preference is for a permitting regime that establishes a right, but not the permission to undertake geosequestration of carbon in a geographically defined area. The permit holder will need to gain, as is the case for Crown Minerals permits, the appropriate consents from the relevant local authority to carry out these activities.
39. In respect to the precautionary approach by consenting authorities noted above, it is important to remember the biggest risk for CCUS projects is financial. That is, the non-delivery of an expected service, which is the durable, long-term removal of CO₂ emissions.
40. It is not from the threat posed by CO₂ leakage to health, safety, or the environment.⁶ Should the mechanism for geological storage prove to be ineffective, then any NZ ETS units that are earned for CO₂ removals would likely need to be returned, at the cost of the project owners.
41. Finally, it is also important to bear in mind the ongoing reforms of resource management legislation. We expect these reforms will play out over the next five to ten years, well outside the necessary timeframe for CCUS to contribute to reducing New Zealand's net emissions. This does not provide potential investors with the necessary regulatory comfort to make their investments in the near term.
42. Given the points made, we recommend the Government develop a dedicated permitting regime to manage the lifecycle of a geosequestration project.

Key features of permitting regime

43. For the purposes of geological storage, we propose a permitting regime having strong parallels with petroleum permits issued via the CMA. In our view, a permitting regime should include;
 - a. a provision that a permit is required to undertake activities in relation to geological storage of CO₂ and that this is a permitted activity;

⁶ For context, it takes 5.15 billion tonnes of CO₂ to raise the atmospheric concentration by 1 ppm. New Zealand's total equivalent carbon emissions for 2020, including agriculture, was about 80 million tonnes. At current rates it would take about 65 years for New Zealand's total emissions to raise the global CO₂ concentration by 1 ppm. The current atmosphere concentration of CO₂ is about 425ppm (<https://www.co2.earth/daily-co2>).

- b. the permit confers an exclusive right to the holder to undertake geosequestration of CO₂ in an area defined by the underlying geological structure proposed for CO₂ storage;
 - c. provisions setting out the rights and obligations of the permit holders in respect to land access and reporting obligations;
 - d. a provision that existing petroleum operations reinjecting produced CO₂ should be exempt on the basis that this is considered a normal oil field operation (but also noting this does not extend to receiving and sequestering 3rd party CO₂);
 - e. an option for the operator of an existing petroleum operation to apply for a separate permit to store CO₂;⁷
 - f. the right for the holder of a permit to study the technical feasibility of geological storage to apply for a subsequent injection/operational permit;
 - g. a process to apply for a CCS permit on a “priority in time” basis;
 - h. a clear obligation for a permit holder to decommission any surface facilities and plug and abandon any injection and monitoring wells and facilities at the conclusion of operational activities and/or monitoring requirements;
 - i. should a financial security be required, this would be to cover the plugging and abandoning of the injection and monitoring wells;
 - j. clear processes for changes in permit conditions, permit surrender (including post operations closure monitoring provisions);
 - k. where the permit holder is a joint venture (JV) an operator should be nominated, and that operator should be a permit participant; and
 - l. permit participants should be joint and severally liable for obligations and costs associated with the permit.
44. Above ground activities, covering consents for site preparation and construction activities would also include the typical discharge (airshed and water runoff etc.) during project operation, would be sought through resource management legislation. We do not propose these consents form part of the permit management system.

⁷ Former petroleum operation sites could potentially continue to operate, offering carbon storage as a service, beyond the life of the Crown Minerals Act 1991 permit (or Petroleum Act License).

Petroleum permit and license holders require a carve out

45. Where carbon emissions from gas or oil processing are captured and reinjected as part of a petroleum mining operations (for both oil and gas) this should be considered as a “normal oil field operation”.
46. Reinjecting produced CO₂ reduces gross emissions from oil and gas operation, where the alternative is CO₂ is either vented or on sold to industrial users. We see this as equivalent to NZ Steel installing an electric arc furnace to reduce carbon emissions from their steel making process.
47. Crown Minerals permit holders are already subject to ongoing monitoring, verification, and reporting regulations, as well as post decommissioning monitoring and “perpetual liability” to address any issues arising post decommissioning. The reinjection of a permit holder’s own CO₂ should not be regarded as a financial arrangement under the NZ ETS. The drivers for permit holders to reinject produced CO₂ is to avoid the costs of the NZ ETS if the CO₂ was vented or on sold for other uses (utilisation).
48. As this is not a financial arrangement in respect to the NZ ETS, and disposal of unwanted fluids by reinjection to the reservoir is not uncommon in the oil and gas sector, we see no reason the CMA can’t be used to (possibly with some minor amendments) in this regard.
49. Permit holders would need the comfort that capture, and reinjection of their own CO₂ would not trigger any additional or overlapping monitoring, reporting, and liability conditions in addition to those imposed by the CMA.
50. We caveat the above by suggesting that should third party CO₂ be transported to the site for permanent storage, this would be deemed as a removal activity and therefore subject to CCUS legislation. This includes the treatment of any NZ ETS units awarded for CO₂ removals. It may be necessary to harmonise any differences or overlap between the Crown Minerals permits requirements and those imposed under a CCS permit for post closure monitoring and liability.

We recommend a phased approach for CCS permitting

51. We favour a regulatory approach where a permit that creates the right, but not the permission to undertake activities to store carbon emissions in geological structures is necessary to undertake a specified activity. In effect, geosequestration should be considered a permitted activity under resource management and marine consenting legislation.
52. A permitting system would be expected to have three distinct permit stages;
 1. **Feasibility** – proving project technical feasibility of the project and the storage mechanism to be relied on;
 2. **Operational** – Full-scale injection operations; and

3. **Post closure** – post injection monitoring activities until ownership reverts to the Crown.
53. It may be possible to bypass the feasibility stage, particularly where sufficient information has been gathered, for example through upstream oil and gas production. This would be at the discretion of the regulator.
54. An application to enter into the operational phase of the project will still require a detailed submission, which would, amongst other things, define the storage mechanism, expected capacity, and operation envelope of the reinjection wells. Again, drawing on the Crown Mineral Act as an example, this has direct parallels with the Field Development Plan required to support an application for a Petroleum Mining Permit.

Developing a standalone regime takes time

55. We appreciate the development of bespoke legislation is a longer-term undertaking. We are aware of several “shovel ready” projects in the upstream sector that could potentially be executed in the near term, which would have the effect of gross emissions reduction. Anecdotally we have heard the regulatory uncertainty, particularly the long-term liability regime, has been a factor in delaying these projects.
56. Rather than enabling CCUS through a series of changes to existing legislation, which we believe will not deliver the necessary clarity for project proponents, we recommend is the Crown take a two-pronged approach to this issue;
 - a. in the absence of comprehensive legislation, the Crown should pursue the “low hanging fruit” for gross emissions reductions – such as reinjection of CO₂ for petroleum mining operations; and
 - b. develop a comprehensive, bespoke legislation that provides opportunities for CCUS as a service for dealing third party CO₂ geosequestration. This would encompass a permitting regime to manage the lifecycle of a project and any post-closure monitoring and liability issues.
57. In our view the first option, to encourage gross emissions reduction in the upstream oil and gas sector, can be achieved expediently through existing provisions in the CMA. We outline our reasoning below.

Decommissioning obligations need to reflect clear regulatory responsibilities

58. Any decommissioning obligations included in the permit conditions need to be pragmatic and realistic. We recommend officials avoid transferring over the approach taken in the CMA, as this has several serious flaws in its design. The most notable being the blurring of regulatory responsibilities between local and central government authorities.

59. In designing any decommissioning provisions, officials should recognise what makes these projects, and petroleum mining unique are the wells. All other above ground pipelines and infrastructure can be found in other sectors. Indeed, decommissioning of surface facilities is best managed through resource management legislation, where consenting authorities are ultimately responsible for setting environmental standards with the benefit of being able to accommodate the preferences of landowners in consent conditions.
60. Specific decommissioning obligations attached to any CCS permit should only cover the plugging and abandoning of the injection and monitoring wells. Wells are the most likely pathway for carbon leakage, so ensuring wells are correctly plugged and abandoned addresses the highest risk of leakage to surface. The approach of retaining plugging and abandoning of wells as a CCS permit condition also makes sense given post closure monitoring and verification will require well surveillance after the operational phase.
61. Should officials recommend financial securities as a condition of holding a permit, we recommend this financial security be restricted to ensure the permit holder has sufficient funds to plug and abandon any wells.

Long-term liability for storage sites

62. Establishing enabling legislation for CCUS requires taking a lifecycle approach, including post-closure monitoring, reporting, and verification obligations.
63. It is essential that project operators can exit a project in a reasonable timeframe. An open ended, or perpetual liability obligation attached to a carbon storage project will serve to discourage CCUS projects from ever getting off the ground. This has to do with how any storage project incentives compare with the counterfactual of paying for the cost of any emissions.
64. The NZ ETS requires firms to buy and surrender the necessary NZ ETS units when accounting for the carbon emissions. Importantly, the NZ ETS doesn't attach any long-term corporate liabilities to participants surrendering the units.
65. Under this scheme firms are incentivised to either reduce gross emissions or adjust their business practices to reduce costs, with any longer-term environmental effects having already been socialised.
66. Attaching long-term liability to a CCUS project essentially privatises any risk, acting as a disincentive for carbon removals.

Other jurisdictions have adopted a reasonable approach to storage site liability

67. Our comments following are premised on the requirement for project operators to submit the equivalent of a field development plan for the project. This would be required as part of the application for a permit to undertake permanent storage of CO₂ through geosequestration. Again, we reiterate the necessity for

such a plan as the basis for determining the project operating envelope and projected storage capacity of the site.

68. We agree in principle with the approach adopted in Norwegian legislation. Providing the pathway for a permit holder to relinquish liability for a storage site is an essential part of an enabling regime. The Norwegian model, whereby after a minimum prescribed period a permit holder can apply to relinquish liability by providing a report that demonstrates;⁸
- a. the stored CO₂ is behaving in a manner consistent with the modelled behaviour;
 - b. that no leakage can be proved; and
 - c. the site is developing towards a condition of long-term storage stability.
69. This approach correctly places the onus on the permit holder to demonstrate to the satisfaction of the regulator the stored carbon is behaving in a predictable manner, consistent with expectations. In this model the Crown is the natural owner of the risk, and only assumes liability for the stored carbon once the risk of leakage has been reduced to an acceptable level.
70. Therefore, we recommend after a suitable minimum monitoring period, and on the submission of a report to the satisfaction of the regulatory authority, liability for the stored CO₂ should transfer to the Crown.

The classification of CO₂ is an important policy decision

71. The consultation document notes environmental effects focused legislation may have an inconsistent treatment of CCUS activities. We agree and note our concern that this has the potential for differential treatment of CCUS projects throughout New Zealand.
72. Given the intention of this legislation is to enable carbon removals for permanent storage, it will be important this distinction is recognised in other legislation, such as the Resource Management Act 1991 and Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012.
73. For the purposes of CO₂ that has been captured and transported for geological storage, we recommend it should be exempt from being regarded as “waste” or as a “pollutant” for the purposes of permanent geological storage. This approach would be similar to that adopted in UK CCUS legislation.

8 The Norwegian model uses a 20-year minimum period before firms can apply to relinquish liability. We believe this may be excessive given the need to incentivise removals for long-term, durable storage.

74. This means the geosequestration of CO₂ for the purposes of emissions reduction will not be subject to current dumping and discharge regulations in the EEZ and RM Acts.⁹

The property rights issue for onshore CCUS remains unresolved

75. We draw your attention to the property rights issue identified in Professor Barton's 2023 of legislation. Professor Barton noted;

"The carbon dioxide that a CCS operation injects into geological structures is likely to spread horizontally some kilometres or tens of kilometres, so, where the operation is carried out on land, it will enter the subsurface of the property of other landowners."

76. Important aspect of property rights is a person's property rights at the surface also has those same property rights for the subsurface. The implications of this are that a person who enters the subsurface, without permission is guilty of trespass – much as is they do so at the surface.
77. This has several important consequences for any CCUS project that utilises geological storage as means of permanent removal or control of emissions. In particular we see this as a potential wedge issue where a landowner, who may be opposed to CCUS, may use trespass as a means to delay or frustrate a potential project.
78. Given the government's intention to create enabling legislation, albeit legislation that is neutral in terms of promotion or incentivising CCUS, it is important the potential for legal challenge from landowner, some of whom may be ideologically opposed to CCUS in principle, be addressed at the outset.

Concluding comments

79. Thank you for the opportunity to submit on this consultation. We consider CCUS to be a vital piece of the puzzle to help unlock a net-zero carbon emissions economy.
80. We welcome further the ongoing, constructive engagement with officials. Please do not hesitate to contact Craig Barry, Policy Director Upstream and Climate at craig.barry@energyresources.org.nz should you wish to discuss or clarify any parts of our submission.

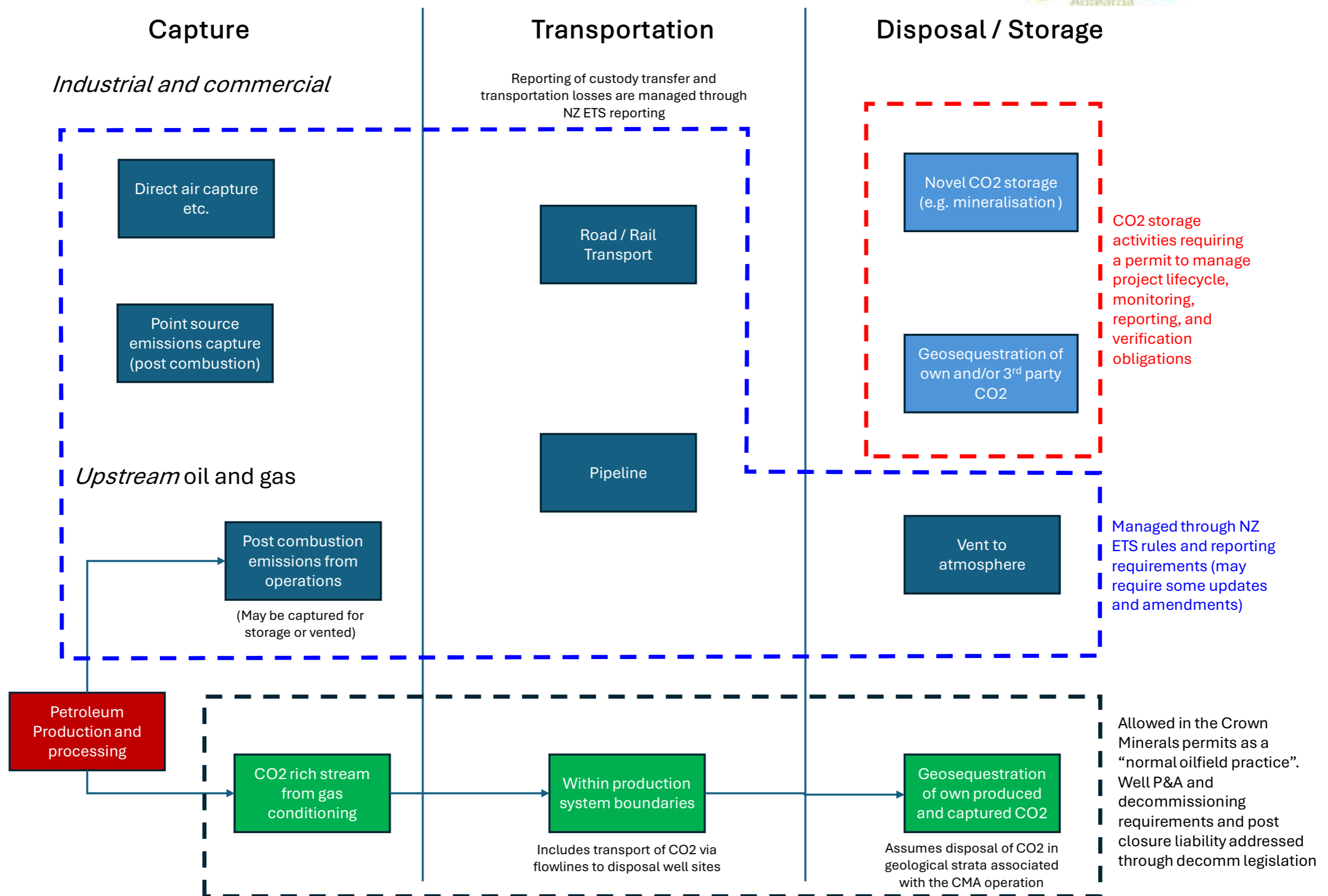
⁹ To be clear, we are not suggesting other marine and resource consents will not be required to undertake and perform these activities.

Appendices

Appendix 1: Elements of a CCUS project – and recommended legislative treatment

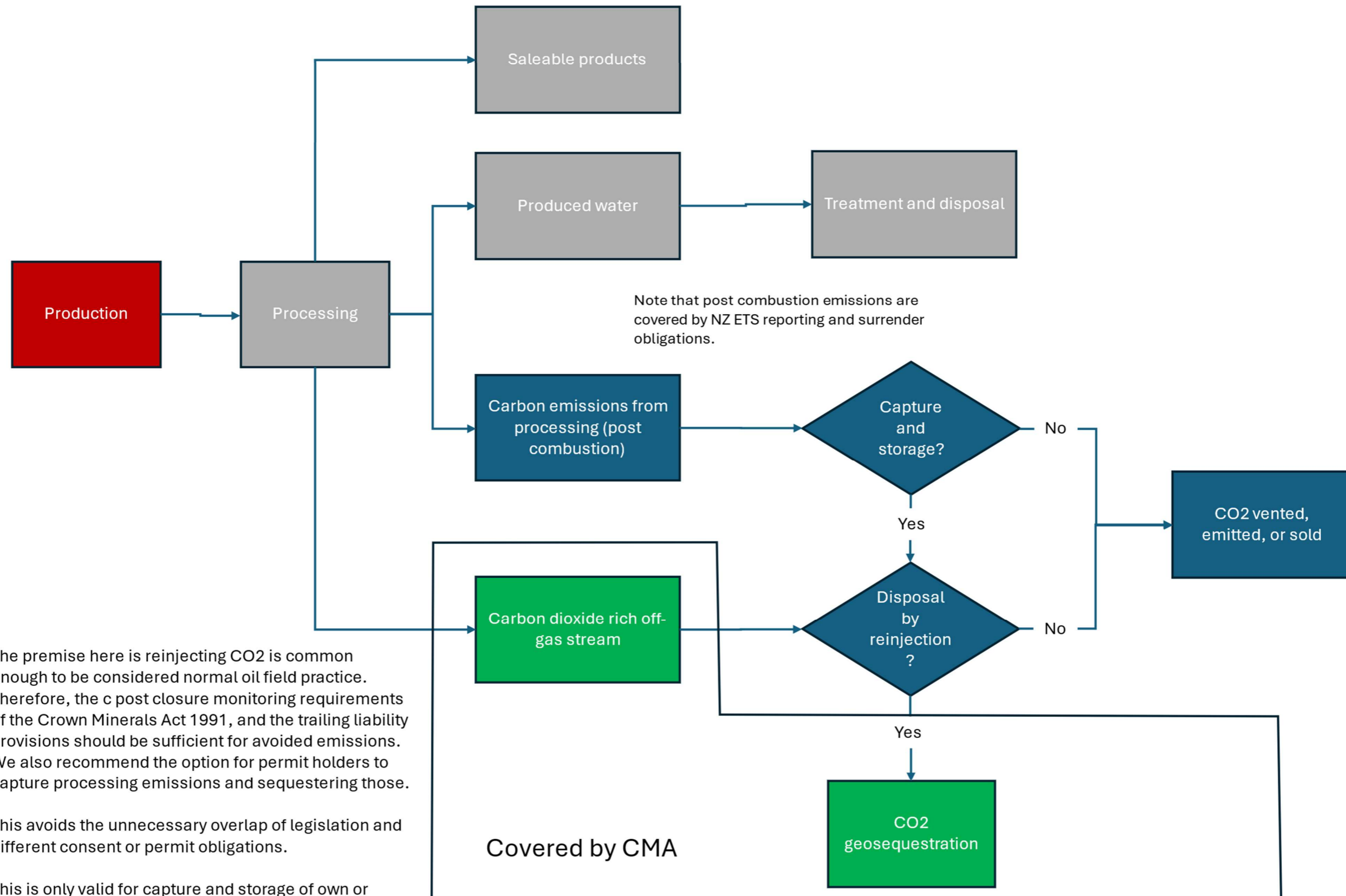
Appendix 2: Upstream oil and gas operations flow diagram

Appendix 1: Elements of a CCUS project – and recommended legislative treatment



Options and technologies shown are illustrative and not intended to be exhaustive

Appendix 2: Upstream oil and gas operations flow diagram



The premise here is reinjecting CO2 is common enough to be considered normal oil field practice. Therefore, the post closure monitoring requirements of the Crown Minerals Act 1991, and the trailing liability provisions should be sufficient for avoided emissions. We also recommend the option for permit holders to capture processing emissions and sequestering those.

This avoids the unnecessary overlap of legislation and different consent or permit obligations.

This is only valid for capture and storage of own or avoided emissions – this does not apply in the case of CCS as a service.