

Submission on MBIE's proposed regulatory regime for carbon capture, use & storage

6 August 2024

Clarus welcomes the opportunity to submit this response to the Ministry of Business, Innovation and Employment's (MBIE) consultation on its proposed regulatory regime for carbon capture, use and storage (CCUS). There is no confidential information in this submission.

Overall, we are supportive of MBIE's proposal. It is credible to think that geostorage of carbon dioxide can offer permanence at least as good as forestry. Given New Zealand's bipartisan political agreement of net-zero climate goals, it makes sense to enable the potential of all credible carbon removal technologies. In the case of CCUS, this enablement needs to happen both within a bespoke regulatory regime and within the emissions trading scheme (ETS).

Potential investors in CCUS technology will seek to understand the risk of their investments being undermined by future policy changes. As such, for the proposal to best enable its desired outcomes, we encourage further bipartisan development of the proposal.

Geostorage of carbon dioxide should be enabled

We endorse the proposed arrangements to enable permanent geostorage of carbon dioxide.

We support there being a mechanism to transfer liability to the Crown. We are not strongly opinionated on the number of years that should elapse before this should be permitted. The proposed fifteen-year period seems credible, though it is more important that the period chosen has political durability.

Monitoring is necessary, but can be simplified

We generally support the proposed monitoring regime. Accurate accounting of what gets (re)injected underground for sequestration is vital.

However, we see no need for the proposed legislative obligation to monitor carbon dioxide at the point of capture or carbon dioxide leakage in transportation. This seems to add cost for no regulatory purpose.

- Leakage is only ever inferred rather than directly monitored. If the location of leaks were known, they'd just be fixed.
- Legislating for measuring carbon dioxide at the point of capture seems unwarranted as it isn't needed for accurate ETS accounting. Operators may well choose to do it in order to understand the efficiency of their technology.
- Combined, the proposed monitoring of carbon dioxide at the point of capture and leakage during transportation is measuring the *efficiency* of the operator.
- The important part of the monitoring regime is to ensure the integrity of the ETS. To do that, the crucial regulatory monitoring need is to measure how much carbon dioxide is (re)injected into permanent geostorage and understanding the extent of any carbon dioxide egress from geostorage.



Achieving a level playing field for use of carbon dioxide

MBIE's proposed regulatory regime envisages no new legislation being needed to enable use of carbon dioxide. Already, carbon dioxide is used in a variety of applications. Where that carbon dioxide has been sourced from the Kapuni gas field, our understanding is that ETS obligations have been met by the time the carbon dioxide user puts the emission to some productive use. Our understanding is that users of biogenic carbon dioxide will—correctly—not attract any ETS charges. We are not aware of any regulatory changes needed to ensure that users of biogenic carbon dioxide are not unduly penalised, and users of fossil carbon dioxide are not additionally penalised provided the ETS liability has been met in relation to that fossil carbon dioxide.

While we are supportive of MBIE's proposal not making any changes in relation to carbon dioxide usage, we have identified two matters of possible future regulatory change:

- If importation of carbon dioxide rises significantly, then it may be necessary to add fossil-sourced carbon dioxide importers into the ETS. Our understanding is that such imports do not currently attract an ETS liability. If evidence builds that such ETS-free importation is materially skewing domestic competition for carbon dioxide, then regulatory change may be warranted.
- Some uses of carbon dioxide retain carbon better than others. For example, felling a tree and combusting it to open-air returns the carbon to the atmosphere immediately, whereas wood milled for timber then used in a building for fifty years has deferral value. Similarly, using pyrolysis to separate natural gas into hydrogen (turquoise hydrogen) and solid carbon (carbon black) avoids directly creating carbon dioxide. Depending on how the carbon black is then used will make a material difference for how long (if ever) before the carbon makes its way back into the atmosphere. In principle, these kinds of differences could be valuable to account for. However, it would be a *major* reform with very high administrative effort and international trade and climate commitment implications. Nonetheless, the ETS regime may eventually need to be adapted to account for the time-value of carbon.