

Enabling deep, liquid, transparent and accessible carbon markets in Australia

Discussion paper

Response by S&P Global

November 2024

4.5 Consultation questions (registry)

1. What registry features and functionality will be the most important to address the current challenges faced by carbon markets?

According to the World Bank: A Roadmap for Safe, Efficient, and Interoperable Carbon Markets Infrastructure (document provided under Annex), the group has identified infrastructure registries will need to prioritise on robust information security and transaction integrity to build trust and address regulatory requirements in the market.

Building robust information security and high transaction integrity includes:

- Access and permissions control with secure multi-factor authentication
- Data protection and encryption in storage and during transmission
- Data retention in accordance with regulatory and business requirements
- Monitoring systems security to detect, prevent and identify potential threats or breaches.
- Maintaining audit trails for accountability and system auditability
- Robust Know Your Client, anti-money laundering and anti-bribery policies built into the registry transactional processes to identify fraudulent activities.

It is also key to have a scalable infrastructure to support evolving policies and standards and interoperability between data sources and market participants to create traceability and build an efficient market. This includes configurable workflows and developing a future-proof technology infrastructure plan to support interfacing with external systems.

2. What registry features and functionality will be the most important to take advantage of the opportunities presented by the growth in carbon markets?

Data and systems interoperability would be key for the carbon market to scale as it supports transactions and data flow between carbon market stakeholders.

Data sharing capabilities between platforms enables regulators to uphold market integrity by effectively identifying double-counting instances e.g. Verifying against emerging carbon abatement projects under other programmes such as Verra. In addition, interoperability features enable the registry to be connected to multiple liquidity venues, allowing market participants to capitalize on market opportunities timely and transact seamlessly, in this creating more liquidity in the market. The registry could also be connected to market participants' inventory and risk management tools to reduce the manual effort in managing trade and settlement risks. With increasing regulatory reporting requirements, data could also be readily available and customized for reporting agencies.

3. Should information about the co-benefits associated with units and certificates, (for example First Nation community outcomes and environmental benefits) be made available in the registry? If so, should this include third-party verified and unverified information?

- a. What existing frameworks could be relied upon to verify co-benefits?

Providing additional co-benefit labels to units makes it easier for buyers to assess and filter the types of units they are willing to consider. These additional labels also add a premium to the pricing, which translates into greater benefits for landowners or project implementers. For example, Verra offers labels such as the Climate, Community & Biodiversity (CCB) Standards for abatement projects that go beyond carbon metrics. The CCB label has become a key benchmark for assessing the quality of land-based projects. For instance, the CBL Nature-Based Global Emissions Offset (N-GEO) contract only allows agriculture, forestry, and other land use (AFOLU) projects that hold CCB accreditation. Where verifiability is a concern, the registry should publish both verified and unverified information, clearly indicating whether the data has been verified by an accredited third party. This allows the market to

make informed decisions while minimizing unnecessary liabilities from a regulatory standpoint and helps to uphold the spirit of transparency in the market.

4. What types of digital platforms and marketplaces would be useful to have connected directly to the registry? What are the key benefits and risks of allowing this connectivity?

For carbon markets to scale effectively, interoperability between different ecosystems is essential. This requires the new registry to seamlessly connect with various trading venues, data assessment platforms, and both national and international registries. Despite the growing connectivity between these platforms, there remains a lack of harmonised data architecture for carbon sequestration activities across different programmes. In Australia, where the market is primarily driven by domestic policy, carbon sequestration efforts are emerging through various programmes. Without the ability to connect and monitor these programmes, the risk of double-counting carbon credits remains significant.

To avoid development and maintenance of multiple connections, a centralized connectivity platform should be considered. Cost efficiencies gained by using such architecture would bring tangible benefits to the market. It's also important to consider the data security and carefully approach confidentiality aspects by applying best practices when it comes to data exchange (encryption and controlled access) as well as data classification (deciding whether data can be shared publicly or be considered as restricted or confidential).

5. Are the criteria to allow external systems to connect directly to the registry (as listed in the table above) appropriate? Are there any other considerations that should be taken into account?

Security and privacy:

- SOC2 compliance should be considered as a minimal requirement for ensuring that data is managed securely.
- Systems must effectively manage data sharing permissions to restrict information to authorised stakeholders only.

Auditability:

- Systems should be built with proper audit trails of user and system actions for traceability and accountability of transactions.

Data reliability and continuity:

- Systems need to be built with high elasticity and resilience.
- Systems should ensure high availability with continuous integration and continuous delivery (CI/CD) practices for reliability of data synchronisation between registry and external systems.
- Storage mechanisms need to be employed for data integrity and availability, with frequent backups safeguarding against data loss and employing a quick recovery in case of any disruptions in connectivity.

6. What registry data would external systems connecting directly to the registry need access to?

To determine the data required by external systems, it is crucial first to identify the relevant stakeholders and their specific needs from the registry data. These stakeholders include:

- Countries, corporations and trading firms that require data to make informed trading decisions.
- Firms that aggregate data across multiple registries to provide their clients with a comprehensive dashboard overview of the industry.
- Companies producing market analysis reports to their clients.

- Companies developing products such as ratings and insurance, which rely on accurate data for risk analysis.

Given the identified stakeholders, the essential data points of interests for external systems connecting to the registry directly can be outlined. These include:

- Current and future issuance pipeline
- Outstanding, transferred and retired credits
- Project related information including eligible offset reports, FullCAM tool and audit reports.
- Private project data such as government approval letter and land ownership data

7. Are there any other areas, suggestions or concerns with the registry that should be noted?

Benefit from cost efficiencies, short time to market delivery, and standardised data taxonomies aligned with global protocols by integrating the registry with meta layers and connectors that simplify connectivity across market players, reduce operational burden, and to promote market transparency and integrity.

- Operationalizing Article 6 of the Paris Agreement, including:
 - a. Managing ITMOs (Internationally Transferred Mitigation Outcomes) and Corresponding Adjustments (CAs)
 - b. Tracking and facilitating the approvals of Letters of Authorization (LoAs)
- Tracking of credits across different programmes for NDC planning
- Connection to the global ecosystem including exchanges and electronic marketplaces
- Gaining access to global carbon credit data to support better buying and selling decisions
- Connecting voluntary markets to compliance carbon programs

5.2 Consultation questions (exchange trading model)

Please read the detailed outline of the proposed exchange-trading model at Appendix A before answering the consultation questions.

9. Please identify the specific carbon exchange user segment(s) applicable to you:

- a. Project proponent
- b. Emitter – compliance market (Safeguard responsible emitter)
- c. Emitter – voluntary market (not a Safeguard responsible emitter)
- d. Exchange participants
- e. Investor in ACCUs
- f. Other – please specify: Data, analytics, and insights

10. Does the market need a central carbon exchange to be established?

The establishment of a central carbon exchange in the Australian Carbon Market is needed for several reasons:

- **Liquidity and Accessibility:** A central exchange would enhance liquidity by providing a more accessible and streamlined platform for trading Australian Carbon Credit Units (ACCUs). This would make it easier for participants to own, hold, and transact carbon credits, addressing the current complexities and delays associated with the existing Australian National Registry of Emissions Units (ANREU).
- **Market Efficiency:** By consolidating various registers and enabling direct transfers between trading partners, a central exchange would improve the efficiency of carbon credit trading. This would reduce transaction costs and make the market more transparent and cost-effective.
- **Integration and Innovation:** A central carbon exchange would facilitate integration with other platforms and exchanges, encouraging greater investment and stronger trading in carbon and other environmental markets. This would also support the development of new methodologies and innovative approaches to carbon abatement.
- **Regulatory and Financial Oversight:** A central carbon exchange would enhance financial oversight and transparency, reducing the risk of market frauds such as price manipulation and insider trading. This aligns with global practices seen in other emissions trading schemes.
- **Support for Emission Reduction Targets:** The exchange would play a crucial role in supporting Australia's emission reduction targets by facilitating the trading of ACCUs, which are essential for offsetting emissions and meeting compliance under the Safeguard Mechanism.

Overall, a central carbon exchange would address current market inefficiencies, enhance transparency, and support the broader goals of carbon market reforms in Australia. Furthermore, in recognising the significance of a domestic central carbon exchange, there is a necessity of enabling international market participants to engage in trading Australian Carbon Credit Units (ACCUs). The Meta Registry plays a pivotal role in facilitating this access, thereby enhancing market liquidity and fostering a more dynamic trading environment. By allowing international participants to participate in the ACCU market, would not only strengthen domestic initiatives but also align with global efforts to address climate change collaboratively. This approach ensures that the benefits of our carbon market extend beyond national borders, promoting a more inclusive and effective response to climate challenges.

11. Are there alternative options to a carbon exchange that could provide greater accessibility, liquidity and price discovery for ACCUs and other certificates?

Rather than replacing a central carbon exchange with alternatives, the following alternatives can complement the exchange by providing additional avenues for trading and therefore improving the overall functionality of the carbon market.

- **Enhanced Registry Systems:** Upgrading the existing registry systems, such as the Australian National Registry of Emissions Units (ANREU), to allow for more efficient and direct transactions could improve market accessibility and liquidity.

Futures Contracts: The introduction of futures contracts for ACCUs, can provide a mechanism for price discovery and risk management.

- **Spot Market Platforms:** Existing platforms which facilitate spot trading of ACCUs, can improve liquidity and price discovery by providing a centralized venue for trading.
- **Integration with International Markets:** Linking the Australian carbon market with international carbon markets could increase liquidity and provide more robust price discovery by exposing ACCUs to a larger pool of buyers and sellers.

12. What challenges do you foresee in the use of the CDI framework to support the carbon exchange and the proposed process to convert CDI holdings into ACCU holdings? How might these challenges be mitigated?

The proposed process to convert CDI holdings into carbon credit units would face challenges particularly around regulatory and compliance, and fungibility. With regards to regulatory, ensuring that the conversion process complies with regulatory standards and maintains the integrity of the CDI and ACCU markets is crucial. This complexity could deter participation. With regards to fungibility, ensuring that CDI and ACCU credits are seen as equivalent in terms of environmental impact and market value is essential. The interchange would need to be seamless.

13. Would you use a carbon exchange that is developed using the prototype model outlined above and in Appendix A, and if so:

- a. what quantities of ACCUs do you anticipate buying or selling through the carbon exchange?
- b. how frequently do you anticipate buying or selling ACCUs through the carbon exchange?

14. Do you prefer the quotation of ACCUs on the carbon exchange to be:

- a. as a single generic class (option 1); or
- b. bifurcated into 2 classes – carbon sequestration and emissions avoidance (option 2)?

15. Do you anticipate any market implications from bifurcating listing to carbon sequestration and emissions avoidance?

By distinguishing between carbon sequestration and emissions avoidance, the market can provide clearer signals to participants about the type of credits they are trading. Under the scrutiny of continuous disclosures, bifurcation will help buyers and sellers be better aligned to the strategies with specific environmental goals, such as prioritising projects that actively remove carbon from the atmosphere versus those that prevent emissions.

16. Are there other classes that should be considered for quotation of ACCUs on the carbon exchange?

Nature-Based Solutions (NbS), such as reforestation and afforestation, play a vital role in sequestering carbon while enhancing biodiversity and ecosystem resilience. These projects not only mitigate climate change but also provide co-benefits such as habitat restoration and improved air and water quality.

In addition to NbS, technology-based solutions, including carbon capture and storage (CCS) and renewable energy projects, are essential for driving innovation and reducing emissions across various sectors. Furthermore, biodiversity-linked credits offer opportunities to integrate conservation efforts into carbon markets, ensuring that ecosystem health is prioritized alongside carbon reduction. By recognising and promoting these diverse classes of ACCUs, a more robust and effective carbon market

could be created that supports a comprehensive approach to climate action and sustainable development.

17. Would the public disclosure of the project method of an ACCU that is received, and then subsequently surrendered or cancelled, under a system generated random allocation process when converting CDIs to ACCUs:
 - a. adversely impact your intended use of the carbon exchange? and
 - b. is any such adverse impact mitigated by option 2 above, that is, limiting ACCUs received to those generated under a project method classified as involving 'carbon sequestration' or 'emissions avoidance' (as applicable to the class of ACCUs traded)?
18. Do you support placing controls or disincentives on the cycling of ACCUs off and onto the exchange with the intention of exchanging one ACCU with certain attributes for another, or should such cycling be allowed?
19. If controls or disincentives against cycling off and onto the exchange are to be introduced, should they involve:
 - a. Restrictions on the use of ACCUs following the collapse of a CDI so that they must be surrendered for Safeguard Mechanism compliance or voluntary cancellation for offsetting purposes?
 - b. Restrictions or economic disincentives on cycling ACCUs allocated upon conversion from CDIs back onto the exchange but not otherwise restricting the use of those ACCUs (e.g. so that they may be sold on the OTC market)?
 - c. Some other form of restriction or disincentive?
20. Will the proposed exchange model complement the OTC market?

Yes. The proposed exchange model would likely enhance the existing OTC market by increasing liquidity, facilitating price discovery, and fostering market confidence.

The carbon exchange can create a structured and transparent trading environment, which is crucial for building confidence in the voluntary carbon market, often challenged by issues of credit quality and integrity. While exchanges provide formalised trading options and benchmarks, the OTC market remains valuable for its flexibility and customised transactions. Together, these systems can coexist, enhancing overall market growth and providing diverse trading opportunities.
21. Are there other issues beyond those set out in this paper with only identifying the project method and other specific attributes of an ACCU after conversion from a CDI?
22. Are there any other areas, suggestions or concerns with the proposed exchange trading model that should be noted?

Annex:

Attachments:

- 1) About S&P and Environment Solutions
- 2) World Bank A Roadmap for Safe, Efficient, and Interoperable Carbon Markets Infrastructure