



Trans-Pacific Collaboration: Australia's CarbonNet project

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32nd CCD Symposium, September 2023



Australian Government
Department of Climate Change, Energy,
the Environment and Water



Jobs, Skills,
Industry
and Regions



AGENDA

1. The CarbonNet Team
2. Victoria's commitments
3. The CarbonNet project
4. Potential customers
5. Timelines & Key milestones
6. Transpacific collaboration



Victorian Government's emissions reduction target

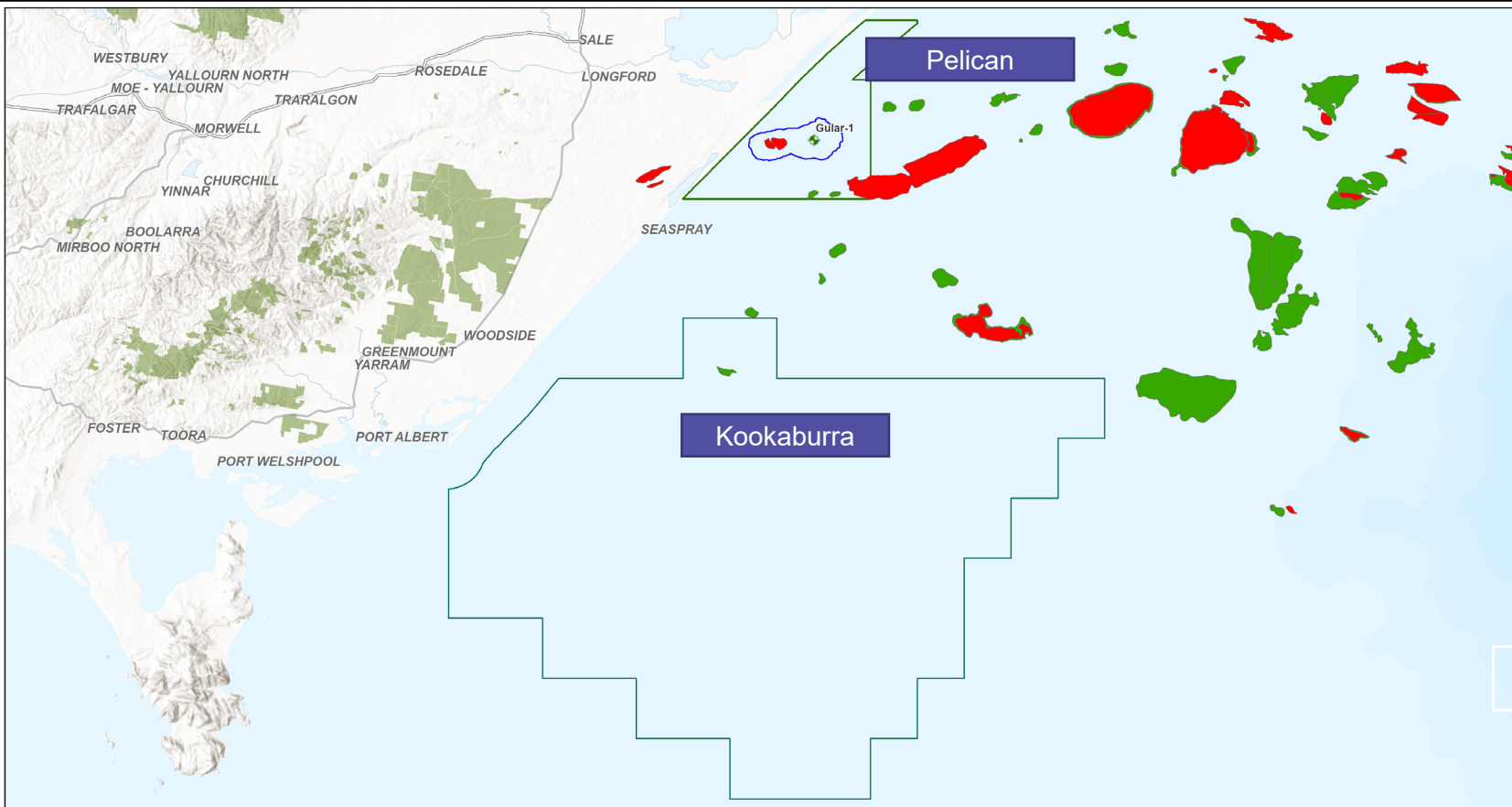
'To achieve net zero emissions by 2045 to align with the Paris Agreement's goal of limiting global warming to 1.5°C by 2050'



CCUS is required in all major global and Australian carbon abatement modelling scenarios*, even when renewable energy provides 100% of our power needs.

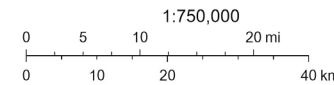
*International Energy Agency (IEA), International Renewable Energy Agency (IRENA), Intergovernmental Panel on Climate Change (IPCC), CSIRO, and NetZero Australia Report – Princeton, UoM, UoQ, Nous

The Gippsland Basin



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- State Forest
- Oil Field
- Pelican storage site
- Gas Field
- Gular-1
- GHG Cth Assessment permits G-5-AP
- GHG Permit GX-6-AP
- Major Localities



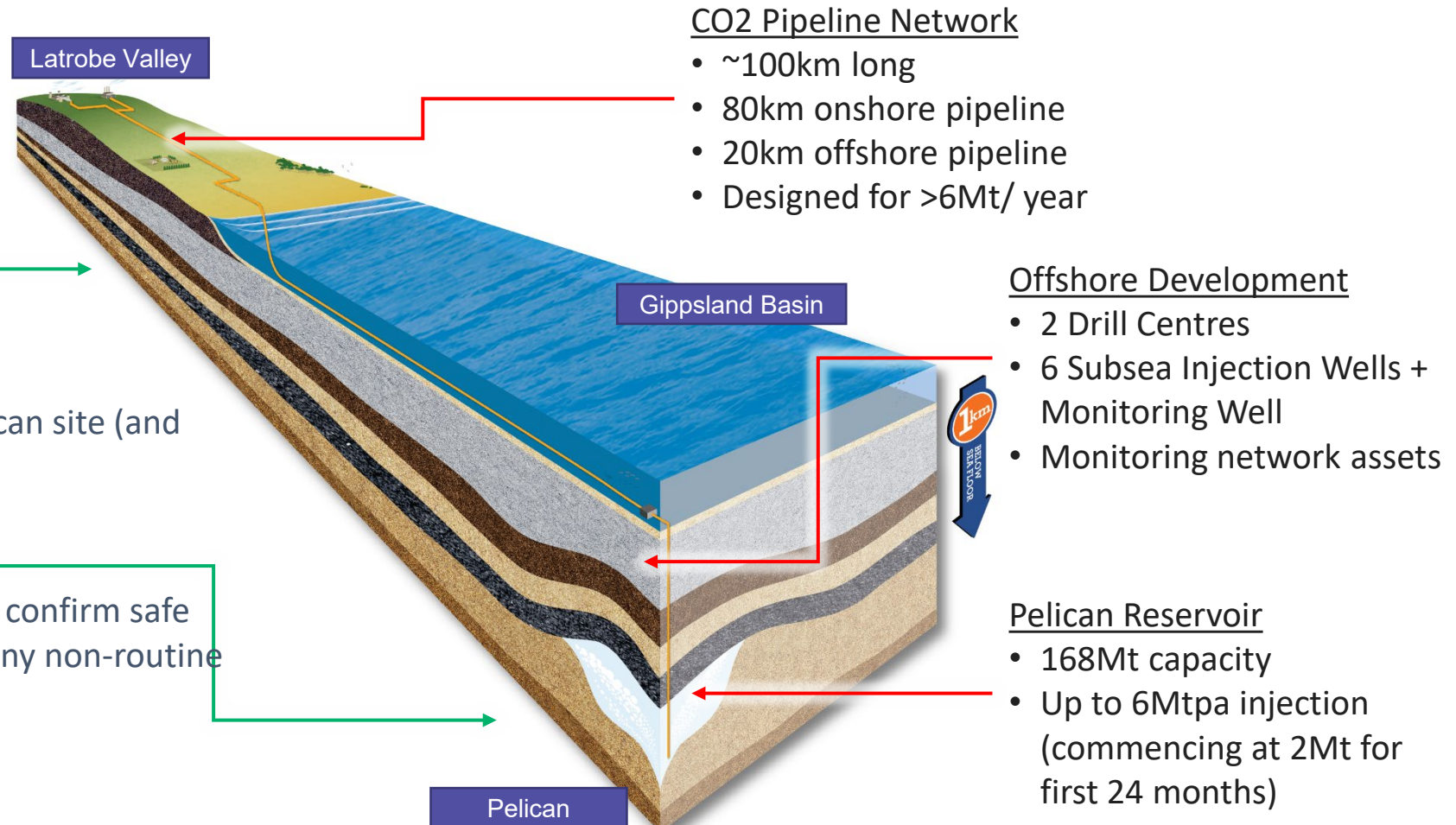
Vicmap, Esri, HERE, Garmin, Foursquare, FAO, METI/ NASA, USGS, Esri, USGS

- World leading geology for CCS
- Pelican independently certified by experts
- Co-existence with offshore wind farms
- Close to industry in Latrobe Valley

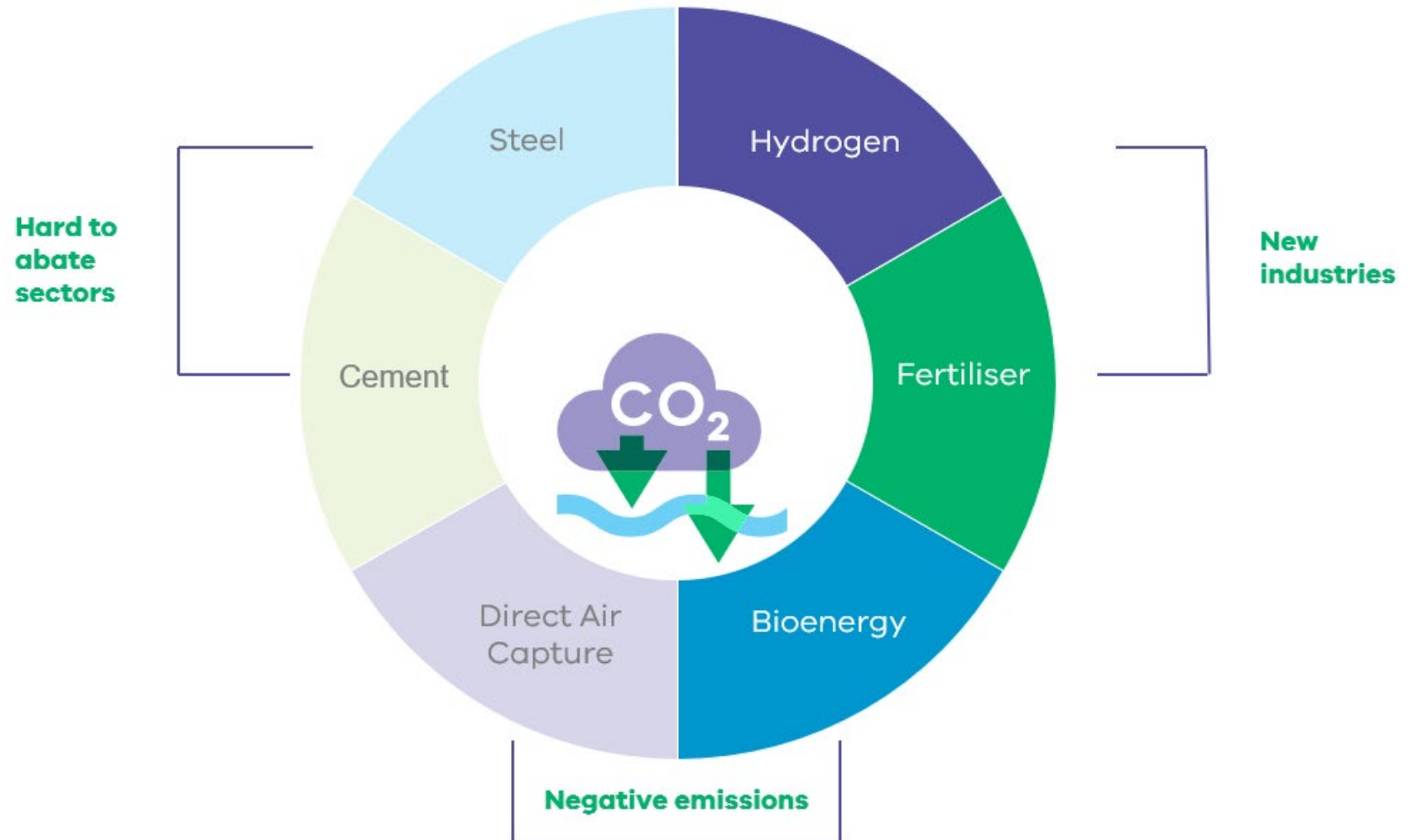
The CarbonNet Project

CCS has a critical role to play to meet a net-zero emissions target

- 1 CO₂ is captured at industrial facilities in the **Latrobe Valley** and compressed
- 2 The liquid CO₂ is transported along the CarbonNet pipeline to the Gippsland Basin
- 3 CO₂ is stored permanently at the Pelican site (and later at the Kookaburra site)
- 4 Environmental monitoring ongoing to confirm safe containment and respond quickly to any non-routine situations



CCS enabled industries



Front End Engineering Design (FEED)

- FEED commenced in April 2023 with a FEED package to be delivered in early 2024
- The FEED study will provide clarity around
 - Cost estimate
 - Single technical option
 - Size of equipment (e.g. diameter of pipeline)
 - Process and instrument diagrams
 - Ability to procure long lead equipment.

Upcoming Regulatory Approval activities

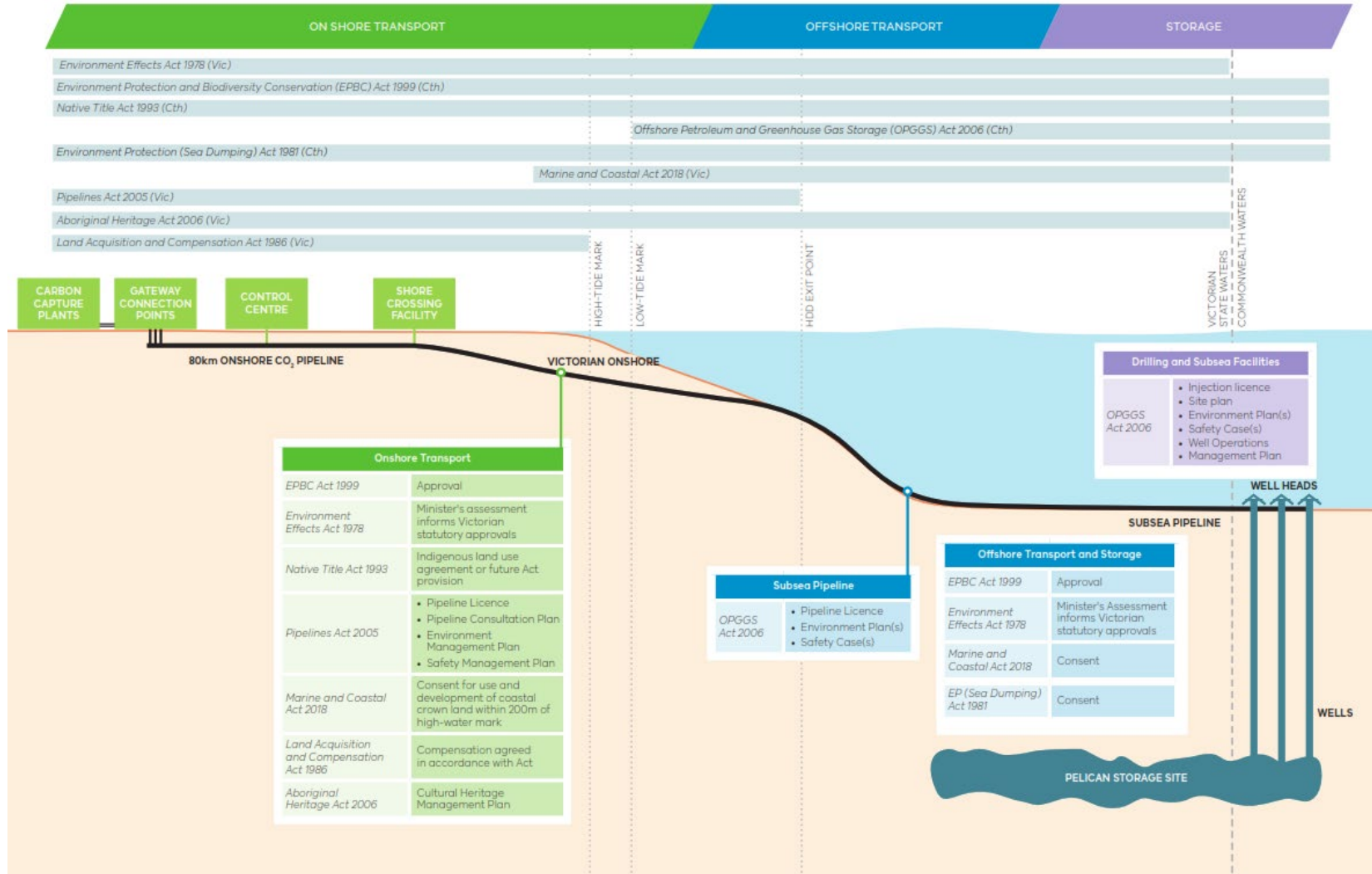
- Pipeline Consultation Plan (Vic) commences pipeline approval process
- Environment Effect Statement (Vic) and Environmental Impact Assessment (Commonwealth)
- Declaration of Storage (Commonwealth).

CarbonNet targets

- Final Investment decision in **2024**
- Completion of regulatory approvals by **2025**
- Construction of infrastructure in **2026**
- Commissioning of pipeline in **2027**
- CO2 storage would then ramp-up slowly, building up to 6mtpa by **2030**

Regulatory process

KEY PRIMARY APPROVALS



Community outreach

- 20 Community Sessions – at Golden Beach and online
- Science Week events in Gippsland
- Presentations, conferences
- Pop-up events planned for 2023



CarbonNet and Japan



JCOAL **JAPAN CARBON FRONTIER ORGANIZATION**

- CarbonNet has established a strong relationship with JCOAL over the last 10 years, attending & participating in Clean Coal Day
- MoU in place between JCoal and Victorian State Government
- We recognise the efforts of JCOAL in hosting this important event, in partnership with METI, NEDO, and JOGMEC.

JOGMEC: Support for CCS



- CarbonNet has a long and established relationship with JOGMEC
- MOU in place between Victorian State Government and JOGMEC
- JOGMEC have provided financial support toward CarbonNet's Front End Engineering Design (FEED)
- CarbonNet and JOGMEC continue to deliver joint investment seminars in Japan

HESC - enabled by CCS

“This project (HESC) has the potential to fulfill the dream, the dream to produce clean hydrogen for export to Japan and other countries to help them deliver the most fundamental revolution of modern civilization – the transition to net zero emissions.”

Alan Finkel, Australia’s Chief Scientist from 2016 to 2020

- World class Japanese project
- Requires a CCS solution
- CarbonNet and the HESC partners have worked together for more than 10 years
- Successful pilot: Hydrogen produced in the Latrobe Valley and shipped to Kobe in 2021

Tomakomai : Experiencing CCS

- CarbonNet have a long and established relationship with Japan CCS Co.
- CarbonNet team members have visited the Tomakomai facility on multiple occasions.





ありがとうございます

詳細はこちらをご参照ください: www.vic.gov.au/CarbonNet