

The CarbonNet Project

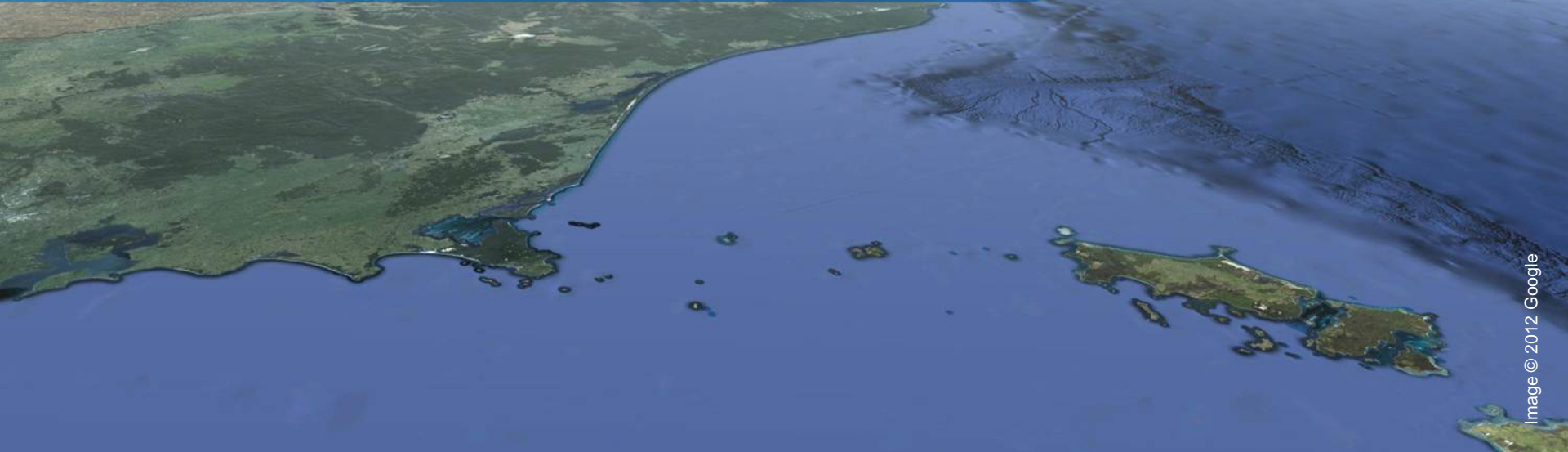


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Carbon Sequestration Leadership Forum

October 2012



**DEPARTMENT OF
PRIMARY INDUSTRIES**

Why CCS in Gippsland?



Latrobe Valley Brown Coal
10's of billions of tonnes
500 years+ Electricity Supply



Some of Australia's highest emitting power stations
60 Mtpa CO₂

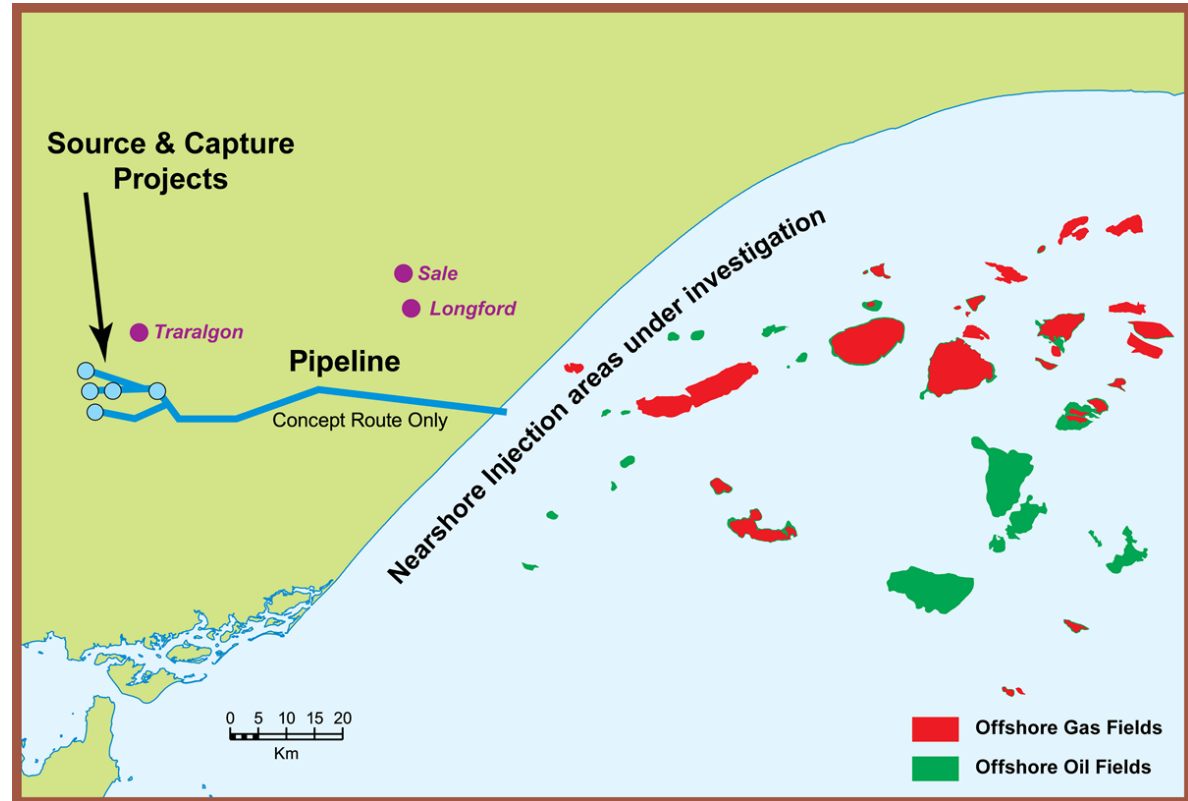


The CarbonNet Project

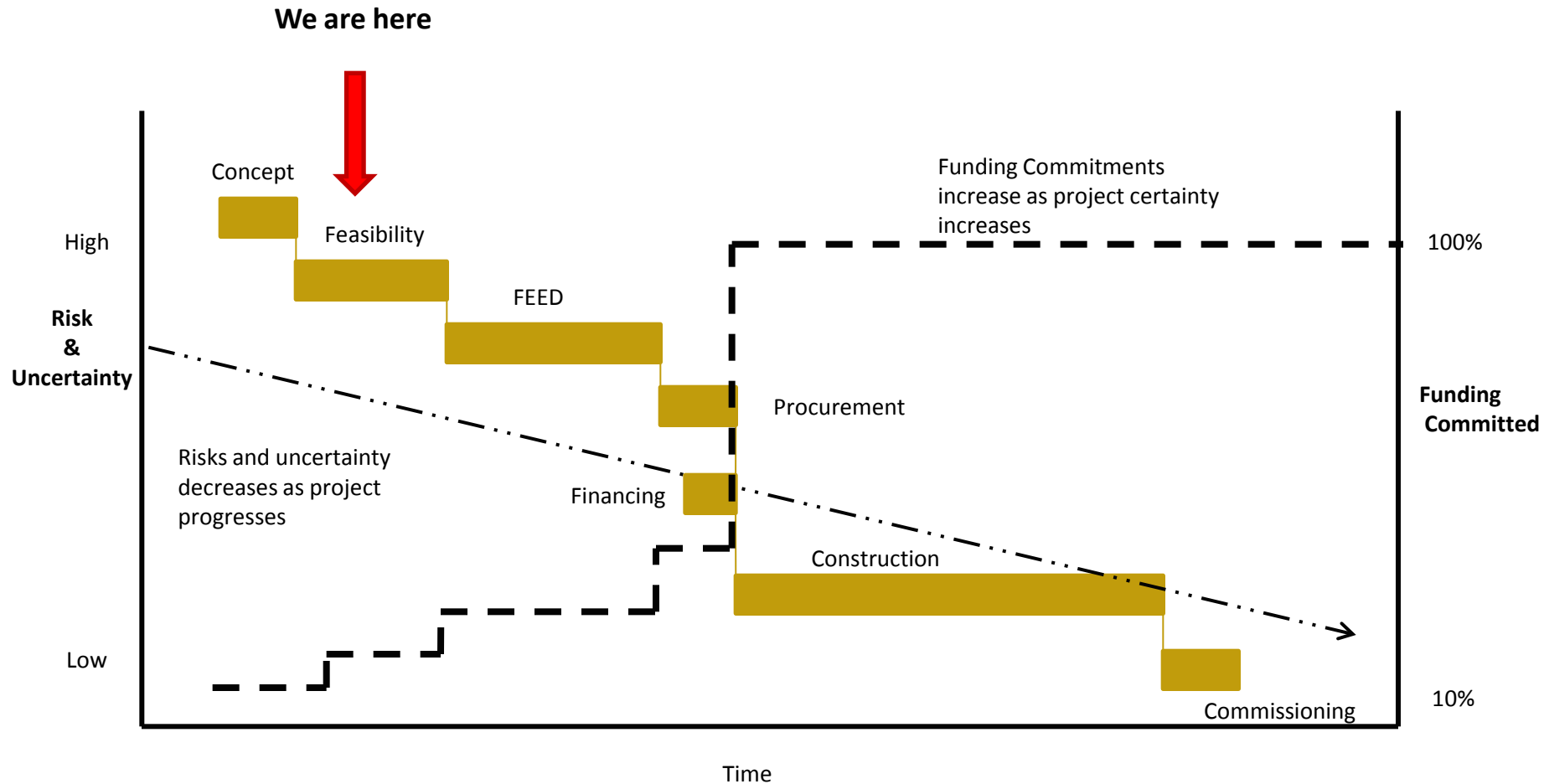
- The goal of the CarbonNet Project is to:
 - investigate and demonstrate safe CO₂ storage in the Gippsland Basin
 - accelerate the deployment of CCS infrastructure
 - attract private sector participation
 - and, in doing so, underpin the growth and development of commercial scale CCS

Large-scale, multi-user CCS network

The CarbonNet Project is investigating the potential for a large scale, multi-user carbon capture and storage (CCS) network in Victoria's Gippsland region



A gated approach

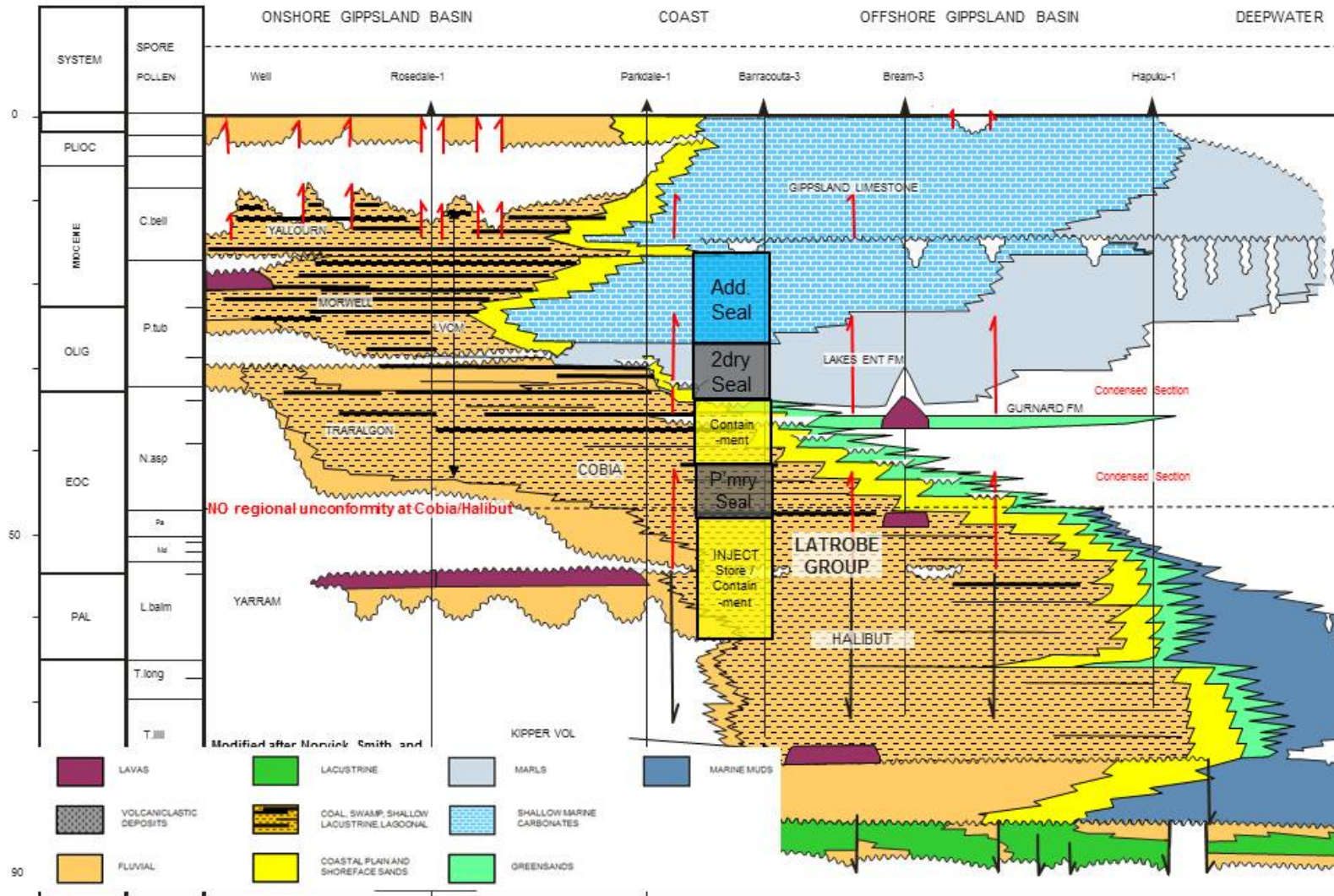


The Challenge

CarbonNet is focused on addressing the five key challenges to enable CCS deployment:

- Storage certainty
- Technology integration
- Regulatory requirements
- Commercial viability
- Public perception

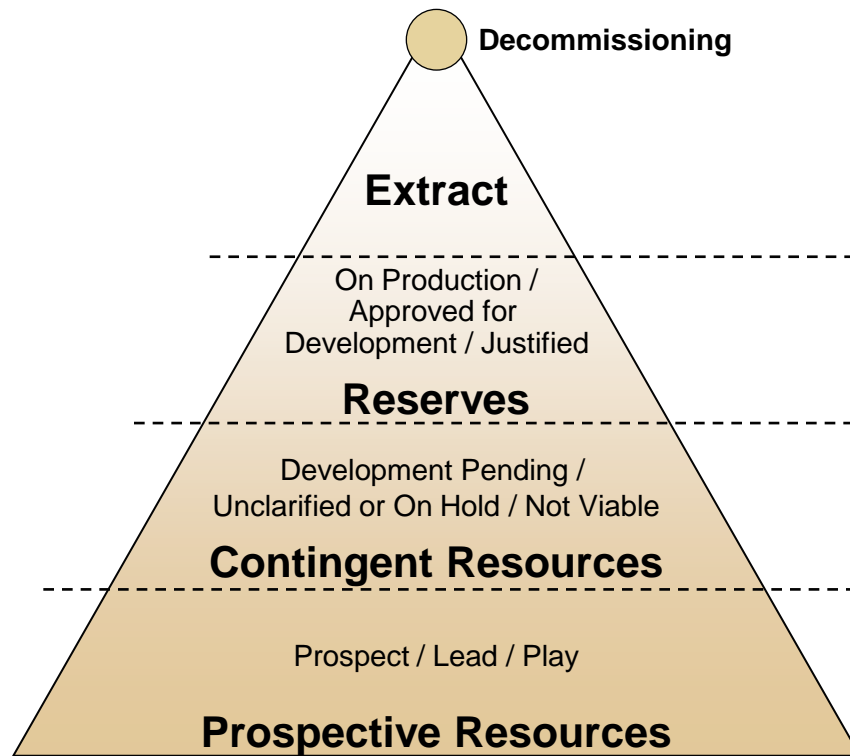
Storage



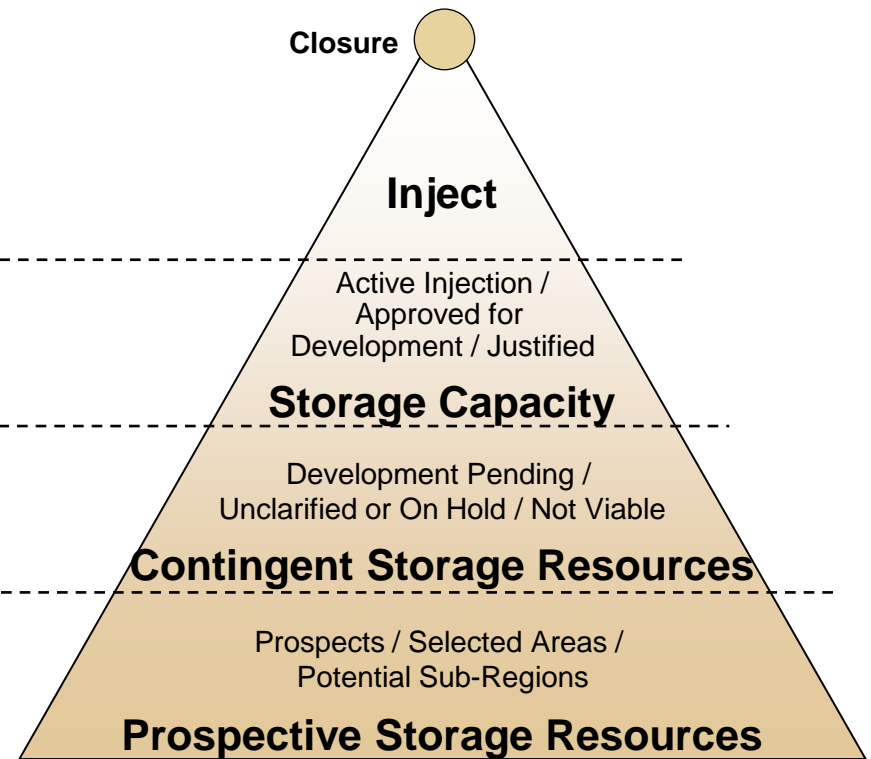
Storage

- CarbonNet uses the same approach as the Petroleum Industry

Petroleum Industry



CO₂ Geological Storage



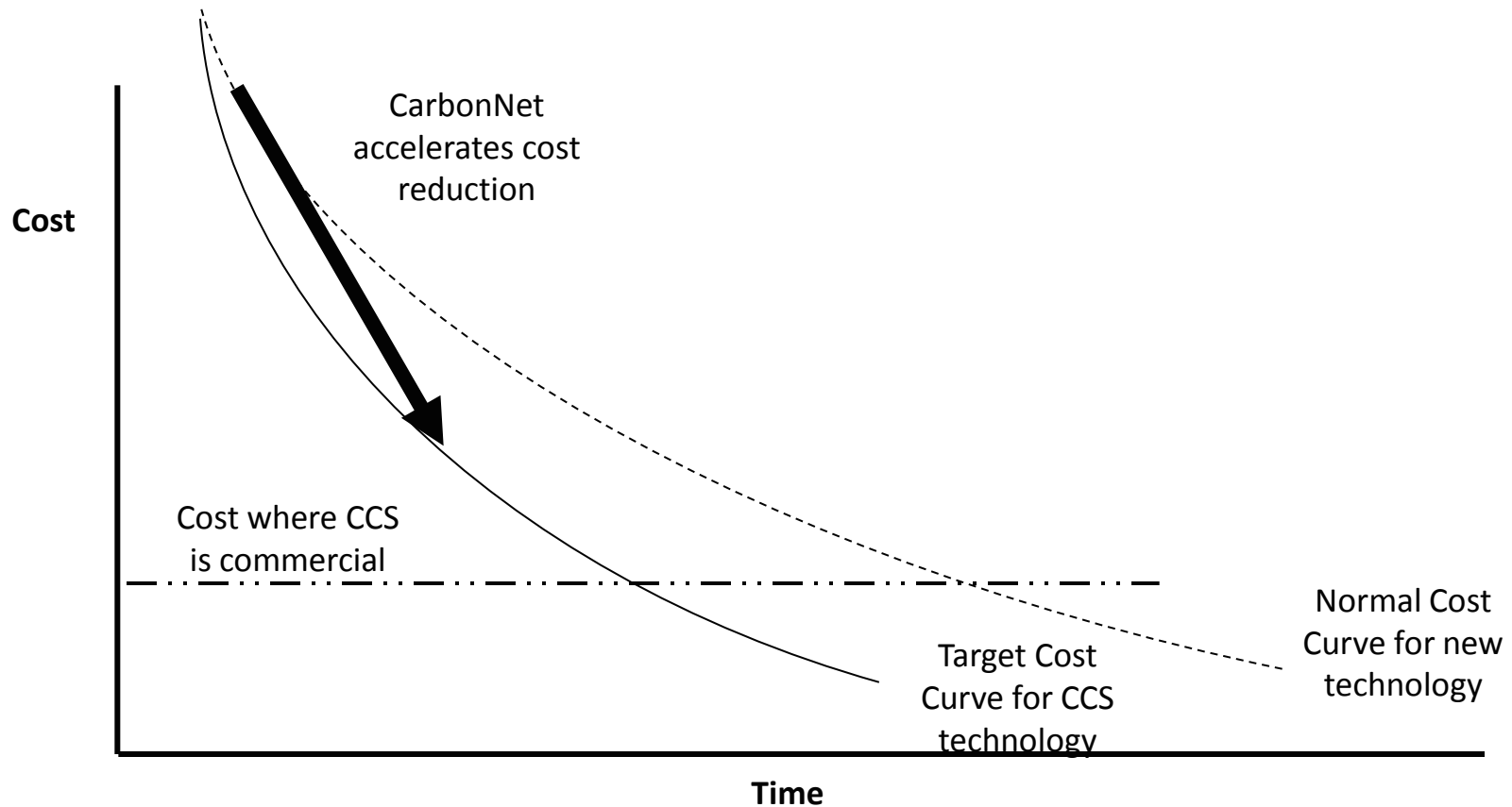
Carbon capture and transportation

- Carbon capture technology is being piloted around Australia
- Captured CO₂ is compressed and transported to be injected deep underground into secure offshore storage sites
- Many of the technologies involved in CCS are already well developed and have been used by CO₂ extraction industries and the oil and gas industry for decades.

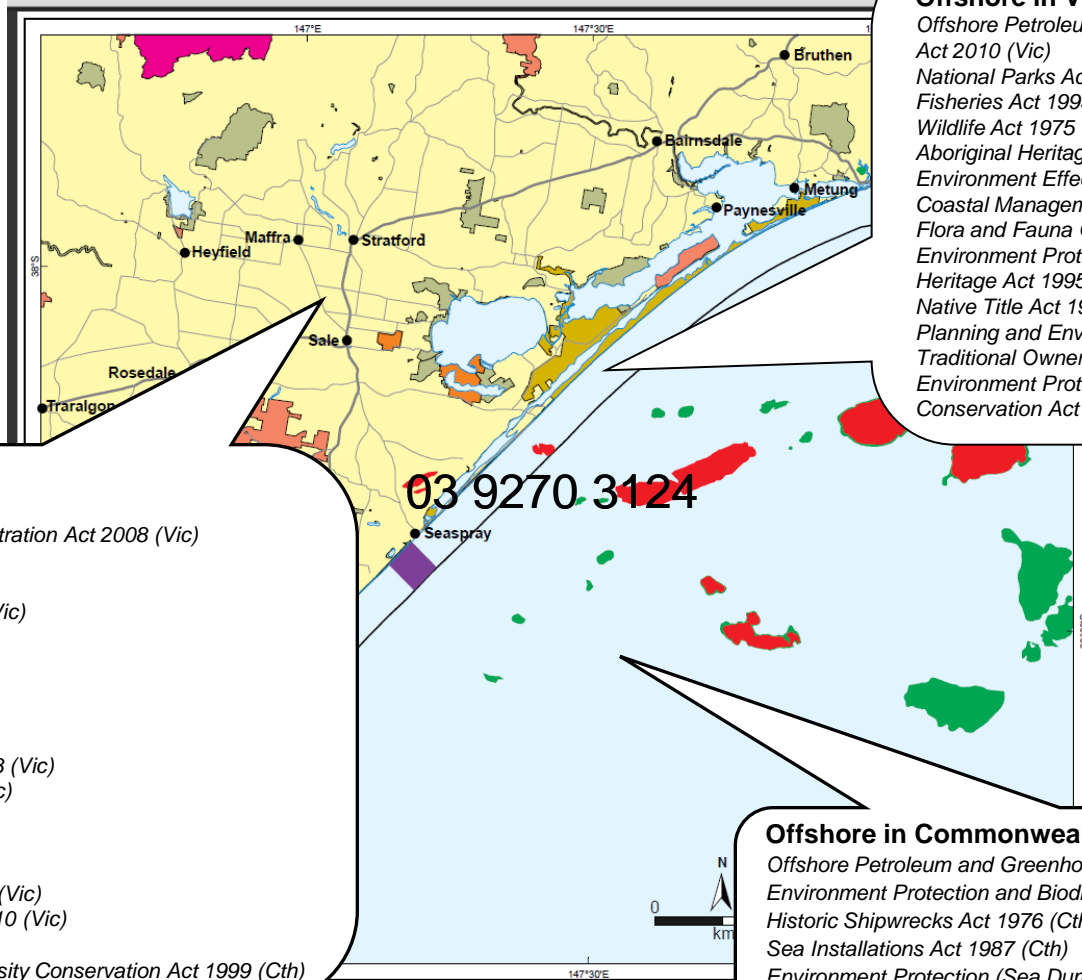


Business model

- CarbonNet will contribute to the achievement of the global goal of accelerating the commercial deployment of CCS.



Regulations



Onshore on Victorian land

Greenhouse Gas Geological Sequestration Act 2008 (Vic)
Pipelines Act 2005 (Vic)
Land Act 1958 (Vic)
Crown Lands (Reserves) Act 1978 (Vic)
Transfer of Land Act 1958 (Vic)
National Parks Act 1975 (Vic)
Aboriginal Heritage Act 2006 (Vic)
Environment Effects Act 1978 (Vic)
Coastal Management Act 1995 (Vic)
Flora and Fauna Guarantee Act 1988 (Vic)
Environment Protection Act 1970 (Vic)
Forests Act 1995 (Vic)
Heritage Act 1995 (Vic)
Native Title Act 1993 (Cth)
Planning and Environment Act 1987 (Vic)
Traditional Owner Settlement Act 2010 (Vic)
Wildlife Act 1975 (Vic)
Environment Protection and Biodiversity Conservation Act 1999 (Cth)

Offshore in Victorian waters

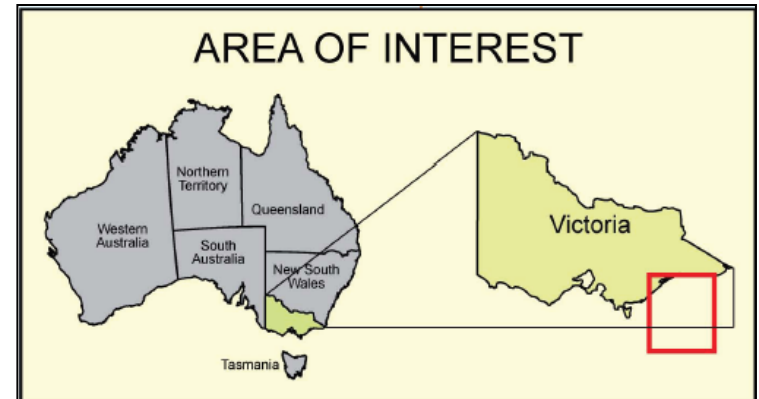
Offshore Petroleum and Greenhouse Gas Storage Act 2010 (Vic)
National Parks Act 1975 (Vic)
Fisheries Act 1995 (Vic)
Wildlife Act 1975 (Vic)
Aboriginal Heritage Act 2006 (Vic)
Environment Effects Act 1978 (Vic)
Coastal Management Act 1995 (Vic)
Flora and Fauna Guarantee Act 1988 (Vic)
Environment Protection Act 1970 (Vic)
Heritage Act 1995 (Vic)
Native Title Act 1993 (Cth)
Planning and Environment Act 1987 (Vic)
Traditional Owner Settlement Act 2010 (Vic)
Environment Protection and Biodiversity Conservation Act 1999 (Cth)

Offshore in Commonwealth waters

Offshore Petroleum and Greenhouse Gas Storage Act 2006 (Cth)
Environment Protection and Biodiversity Conservation Act 1999 (Cth)
Historic Shipwrecks Act 1976 (Cth)
Sea Installations Act 1987 (Cth)
Environment Protection (Sea Dumping) Act 1981
Native Title Act 1993 (Cth)

Community engagement

- CarbonNet is committed to open, ongoing engagement with the Gippsland community
- Working with federal and state government, local councils, industry, research institutions and the local community is key to our engagement plan
- Committed to providing the community with clear, relevant and accessible information on CCS and the project risks and benefits



Working collaboratively

CarbonNet works collaboratively with many organisations:

- State Government of Victoria
- Commonwealth Government
- Global CCS Institute
- CO2CRC
- Clinton Climate Initiative
- Australian National Low Emissions Coal Research & Development (ANLEC R&D)
- Industry

CarbonNet Strategy

- Government/private sector approach in early stages
- Accelerate work program on storage
- Portfolio approach to both source and capture projects and selection of the foundation storage site
- Early consideration of a business model
- Early consideration of regulatory requirements
- Build community trust and knowledge
- Build the best core team possible and augment with expert service providers

CarbonNet – what's next?

Key activities over the next two years include:

- Conducting detailed assessments of the short-listed potential storage sites to determine the optimum location for the safe, long-term storage of CO₂
- Investigating potential carbon capture plants and transport pipeline routes
- Define the commercial structure and underlying principles to attract private sector investment
- Completing detailed analysis of the potential impacts on the Latrobe Valley of possible future changes to the energy industry
- Increasing community and stakeholder engagement

The CarbonNet Project

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