

July 2018

Mr Andrew Cripps  
Chairman  
Resources 2030 Taskforce  
Department of Industry, Innovation and Science  
GPO Box 9839  
Canberra ACT 2601

By email: [Resources.Statement@industry.gov.au](mailto:Resources.Statement@industry.gov.au)

Dear Mr Cripps

**Submission to the Taskforce on the long-term role for carbon capture and storage and value of “pore space” as an Australian Resource.**

This ANLEC R&D submission to your Taskforce is to highlight the need for continuing investment in Australian coal resources – especially those options that provide for lower emissions from its use.

The Australian National Low Emissions Coal Research & Development (ANLEC R&D) Initiative – a partnership between the Australian Coal Industry and the Commonwealth – has been operating since 2010. During this time, it has delivered the research and technology support for deploying carbon capture and storage (CCS) in the Surat (Qld), Gippsland (Vic) and South Perth (WA) basins of Australia.

***Why is CCS important for Fossil Fuel Resources?***

Australian coal exports accounted for nearly \$57 billion in export earnings for 2017. To sustain such resource earnings, Australian coal must have its response to a lower emissions future. Successful CCS deployment in Australia will deliver:

- a) A local licence to operate for continued mine development and exports
- b) A very necessary path to track the lowest cost route to meet Australian obligations for deep decarbonisation of its electricity generation sector.

***A licence to operate***

As a country endowed with extensive energy resources, it is morally incumbent upon Australia to show leadership and play its role in delivering a low emissions coal technology platform such as CCS internationally.

***Meet Australia’s emissions reduction commitments***

The most recent research<sup>1</sup> shows that as decarbonisation transforms Australian electricity generation, the services provided by low emissions fossil fuel – Coal and Gas with CCS – will be increasingly relied upon to deliver reliability and strength for the grid system. Importantly, CCS is expected to become the lowest cost option at a threshold penetration of intermittent renewable technologies.

CCS permitting and deployment cannot be turned on at short notice.

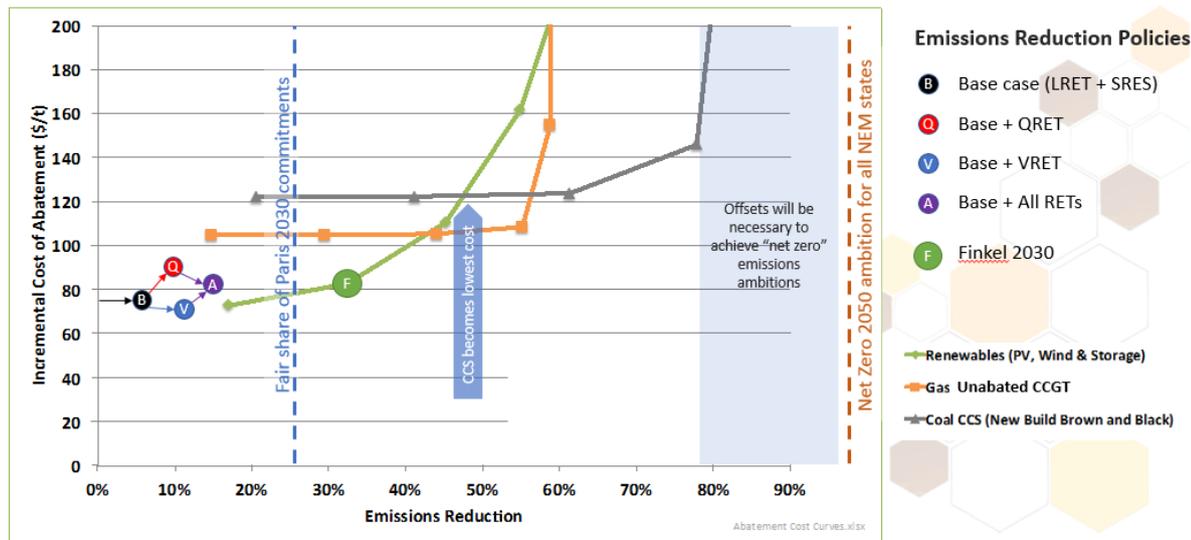
When viewed in the context of current Australian State and Federal policy commitments, Figure 1 shows that, for the electricity to meet its fair share of the Paris 2030 targets, unless offsets are in place, CCS will be

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<sup>1</sup> [Boston, A., Bongers, G., Byrom, S. and Staffell, I. \(2017\). Managing Flexibility Whilst Decarbonising Electricity](#)

required earlier. Importantly, to achieve “a net zero” emissions ambition by 2050 requires full scale deployment of CCS in the early 2030’s. For that to happen all necessary preparatory work in Australia will have to be completed in the 2020’s.

Figure 1: Decarbonisation Pathways for Australia<sup>2</sup>.



## The Value of “pore space” Resources

The contents of Australian geological pore space continues to yield for us very valuable resources such as gas, oil, and water.

In a carbon constrained world, this pore space itself is taking on new and increasing value. The value lies in its capacity to mitigate greenhouse gas emissions from fossil fuel energy. Pore space for carbon dioxide storage would also be available for industrial exports such as hydrogen as well as to enable technologies like enhanced oil recovery (EoR).

It will be necessary to develop and manage pore space – where available - as a true resource. Integrated policies and resource governance systems will be necessary at both State and Commonwealth level to balance the competing demands and interests of extracting valuable pore contents and regulating access to it as a storage resource.

CCS deployment in Australia will enable the development of necessary supply chain relationships and de-risk investment models to realise that pore-space value. Both are pre-requisites to maintain our resource markets and meet our international emissions reduction commitments.

## International Priority

The priority for CCS is highlighted by international by bodies like the IEA and the International Panel on Climate change. The 2017 CCUS Summit co-chaired by Rick Perry, the United States Secretary for Energy and IEA Executive Director Fatih Birol included among its participants, important Australian representatives including the Deputy Secretary, Department of the Environment and Energy and the Glencore Head of Coal

<sup>2</sup> Boston, A., Bongers, G., Byrom, S., 2018, Interim Milestone Report to ANLEC R&D

Assets. Ministers and Corporate Executives of this Summit acknowledged the need for a significant boost to CCS investment best summarised in the following comments of Dr Birol:

*“... The under-investment in CCS is deeply concerning. We know that we face an unprecedented challenge in meeting climate goals. Without CCS, this challenge will be infinitely greater. We also know that this is essentially a policy question....”*

The future of Australian fossil fuel resources is intimately tied to alleviating these concerns. Australia has an interest to play its role in enabling CCS, thereby preserving the longer-term value of its fuel assets in a carbon constrained world.

**Recommendations:**

1. Australia is well along the path to CCS deployment. It is important to build on and secure this outcome through continued Commonwealth and Industry investment going forward to 2030.
2. Investment in the Surat Basin CCS Project<sup>3</sup> and the Surat Basin Hub infrastructure plan builds on the extensive development and planning to date and ensures delivery within the 2030 timeframe
3. Investment in the Gippsland Basin CCS Project<sup>4</sup> prepares the depleted oil and gas reservoirs for carbon dioxide storage from Australian brown coal and gas resources off shore
4. Continued investment in technology deployment research services to support CCS in Australia is essential. This work already commenced through ANLEC R&D (see attachment) delivers the underpinning science for community assurance and protects the long-lived investment in the pore-space reservoirs of Australian relevance for carbon dioxide storage.

ANLEC R&D is willing to meet with the Taskforce and/or deliver any further information you or your Secretariat may require.

Yours faithfully;



Dr Noel Simento  
Managing Director

**Attachment:**

1. Enabling CO2 Storage for Australia – 2010-2016

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<sup>3</sup> [The Surat Basin CCS Project](#)

<sup>4</sup> [The Gippsland Basin CCS Project](#)