

Professor Frank Jotzo  
Carbon Leakage Review  
Department of Climate Change, Energy, the Environment and Water (“DCCEEW”)  
GPO Box 3090,  
Canberra ACT 2601

12<sup>th</sup> December 2023

## **Submission regarding the Carbon Leakage Review (the “Submission”)**

Dear Professor Jotzo,

My name is Daein Cha, Managing Director of deepC Store Pty Ltd (“dCS”). I am writing to make a Submission as part of the consultation process. For information about dCS, please see attached Appendix.

In response to the proposed approach to assess and address carbon leakage risk, as part of the Carbon Leakage Review, please find below my contribution.

### **1. Review Context**

#### *1.1 Carbon leakage - Is the description of carbon leakage appropriate for the purpose of this Review?*

I understand, based on section 2.1 of the “Carbon Leakage Review – Consultation Paper,” that the scope of the review of carbon leakage risk will only cover Emissions Intensive and Trade Exposed (EITE) goods and commodities.

While I congratulate the Australian Government with its successful implementation of the Safeguard Mechanism reform and its ongoing efforts to actively addressing Australia’s emission reduction, I highlight that most other nations within the Asia Pacific region are significantly lagging in their pace for implementing emission reduction policies, especially those that reinforce the “polluter pays” principle. This lag will continue to be a key concern for not only the Australian industries that produce goods and commodities, but also for the general Australian public who are the ultimate end users of the goods and commodities.

In order for the Australian Government to ensure that the full context and extent of carbon leakage risks for Australia are better understood, I suggest for the scope of this carbon leakage risk review to include all goods and commodities that may be affected by such policies as the Safeguard Mechanism reform and other emissions reduction policies as implemented or to be considered for implementation by Australia. More specifically, I propose for this review to cover all goods and commodities that are either (1) produced in Australia for either domestic consumption or export, or (2) imported into Australia.

#### *1.2 The Safeguard Mechanism - What is your view on how your business or industry could be affected by carbon leakage?*

As an Australian CCUS project proponent, dCS continues to experience “capital flight” first-hand. Feedback that we receive from our prospective investors regarding our CCUS project investment opportunity is that “with the USA, EU and other jurisdictions offering favourable incentives for conducting CCUS activities in their jurisdictions, future funding availability to progress CCUS project development in Australia will be influenced by such opportunities.”

## **2. Assessment methods of carbon leakage risk and effects of policy options to address it**

### *2.1 Relevant goods and commodities - Are there other goods or commodities beyond those identified as trade exposed under the Safeguard Mechanism that should be included in the assessment?*

Please see my responses in section 1.1 of this document.

### *2.2 Assessing impacts of carbon leakage and policy instruments - Is this characterisation of the potential impacts of carbon leakage and instruments to address it appropriate for the purpose? Are there other aspects that should be considered?*

I support the assessment of impact to be based on proposed metrics that would measure:

1. changes to domestic production, investment and employment in the industries that produce the goods and commodities that are the scope of this review (noting that I propose for the scope of this review to be expanded, as per my response in section 1.1 of this document);
2. changes in domestic demand for and supply for other goods because of changes in relative prices;
3. changes in regional economic activity within Australia;
4. changes in government revenue and expenditure;
5. changes in Australia’s net emissions (Scope 1, 2 and 3)

### *2.3 Analytical approach - What domestic economic effects from carbon leakage and policy approaches to address it are of particular importance for analysis and modelling? Would the analysis benefit from an assessment of impacts on bilateral trading partners and net global emissions?*

Please see our responses in section 2.2 of this document.

In addition, I suggest that this review assess the impacts on bilateral trading partners and net global emissions. This is to ensure that the full context and extent of carbon leakage risks for Australia are better understood.

Regarding the metrics to assess for understanding impacts on bilateral trading partners, I propose for the following:

1. changes in bilateral trading partners’ demands for Australian goods and commodities due to the changes in relative prices;
2. changes in bilateral trading partners’ net emissions (Scope 1, 2 and 3)

Upon conducting the assessment of impacts on bilateral trading partners and net global emissions, I suggest for joint studies to be conducted between the Australian Government and the governments of key trading partners (e.g. Japan, Korea, Singapore, India, USA, EU, China) for sharing information, improving mutual understanding, and enhancing cooperation.

Please see section 3.5 of this document for more information regarding this matter.

### 3. Policy options to address carbon leakage risks

#### 3.1 Existing measures under the Safeguard Mechanism - What is the capacity of current policy settings of the Safeguard Mechanism to mitigate carbon leakage risk into the future?

I highlight that the Safeguard Mechanism reform alone is insufficient to address carbon leakage risks. Having the Safeguard Mechanism reform in place while not having the Carbon Border Adjustment Mechanism (CBAM) and/or other key carbon leakage policy in place will likely eventuate in reduced manufacturing of goods and commodities in Australia due to added cost, and increased import of the same material that is high emissions (due to unregulated manufacturing practices, added shipping etc).

#### 3.2 Australian carbon border adjustment mechanism - Is an Australian carbon border adjustment mechanism desirable? If so, which design features should be considered?

I support Australia's introduction of a CBAM as a key policy mechanism for leveling the playing field between domestic and foreign production and addressing carbon leakage risks.

I suggest for the following key design features to be considered:

1. Determining Adjustment Quantity: Noting that a declining emissions limit (baseline) is applied to the Safeguard Mechanism facilities when assessing the need for such facilities to manage their excess emissions, I suggest that an equivalent mechanism be applied to determine the amount of excess emissions that may apply for adjustment to imported goods and commodities. I also highlight Australia's need to discuss and agree with its key trade partners a mechanism for ongoing monitoring and verification of the amount of excess emissions that may apply for adjustment to imported goods and commodities.
2. Determining Adjustment Price: Noting that I suggest for the scope of this review to include all goods and commodities that are either imported or produced for domestic use and exports, I suggest for carbon pricing such as ACCUs and Safeguard Mechanism Credits (and others as relevant for the specific goods and commodities that will be covered under the CBAM) to be considered for application.
3. Use of CBAM Revenues: I suggest that some portion of the CBAM revenue be considered to be utilised for:
  - a) funding an independent body to assess adjustment quantity
  - b) financing Australia's initiatives to address carbon leakage risks; and
  - c) financing Australia's initiative to assist the energy transition of least developed countries.
4. Rebate for export: I highlight that a significant portion of Australia's carbon-intensive production serves export rather than domestic markets and is therefore at risk of competition from higher emission sources. I suggest for this review to investigate all options including rebate for export to level the playing field between domestic and foreign production and to promote Australia's low emission goods and commodities. In that context and though not specifically linked with export, the 45Q tax credit introduced for CCUS and the production tax credit (PTC) introduced for wind in the USA serves as a good example on ways in which the leveling of the playing field can be achieved.

### *3.3 Emissions product standards - What is the appropriate role for emissions product standards to mitigate carbon leakage?*

An emissions product standard is particularly useful to address carbon leakage risks for goods and commodities that are imported into Australia, especially since these may be more difficult to cover under the CBAM. This includes refined petroleum products, passenger motor vehicles and freight.

### *3.4 Targeted public investment in firms' decarbonisation - What is the appropriate role for public investment measures to mitigate carbon leakage?*

I strongly support Australia's consideration for targeted public investments to decarbonise Australian industries. This will help level the playing field between domestic and foreign production of goods and commodities and reduce the risk of carbon leakage.

As an Australian CCUS project proponents (and as also mentioned in section 1.2 of this document), dCS continues to experience "capital flight" first-hand. Feedback that we receive from our prospective investors regarding our CCUS project investment opportunity is that "with the USA, EU and other jurisdictions offering favourable incentives for conducting CCUS activities in their jurisdictions, future funding availability to progress CCUS project development in Australia will be influenced by such opportunities."

In that context, I request for the review to consider the relative balance of public investment allocation among CCUS relative to those offered for other decarbonisation initiatives.

### *3.5 Multilateral and plurilateral initiatives - What is the appropriate role for multilateral and plurilateral initiatives to help to mitigate carbon leakage, and the impact of unilateral measures taken to address carbon leakage?*

I support Australia in its pursuit of all avenues of multilateral and plurilateral initiatives to level the playing field between domestic and foreign production and to address carbon leakage risks.

Furthermore, I suggest for Australia to invite key trade partners such as Japan, Korea, China, USA, India, and EU to

1. Participate in structured stakeholder consultation processes such as that being conducted for this carbon leakage risk review. At a minimum, this can assist Australia to reduce the degree of trade tension and "surprises" that its key trade partners may experience as Australia continues to lead the Asia Pacific region in the implementation of emission reduction policies. Sharing of assessment methods and assessment results by Australia for feedback from its key trade partners can also help enhance the quality of Australia's assessment.
2. Conduct joint studies between the Australian Government and the governments of key trading partners for sharing information, improving mutual understanding, and enhancing cooperation for assessing impact and addressing carbon leakage risks.

- Jointly support and incentivise industries and end users of goods and commodities to choose decarbonised product (e.g., steel, cement, ammonia, or hydrogen) over "standard" carbon-intensive conventional product alternatives.

#### Opportunity for Australia

Specifically in relation to CCUS initiatives, I highlight that Australia has a mature regulatory regime that supports CCS and extensive well understood geology that is suitable for large scale geosequestration. More specifically, Australia has large potential CO<sub>2</sub> sequestration capacity of 434 billion tonnes<sup>1</sup>, of which 316 billion tonnes (~73%) resides in offshore Australia, with the remaining 27% available in onshore aquifer storage.

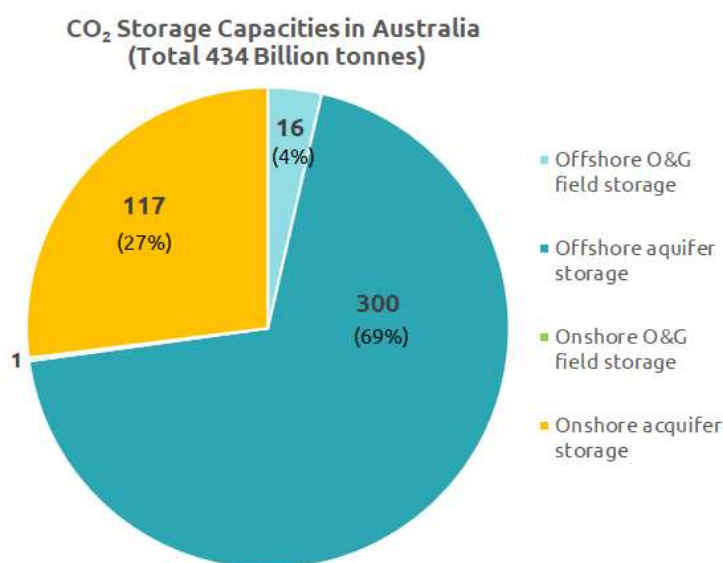


Figure 1: Geological CO<sub>2</sub> Storage Capacities in Australia (O&G denotes oil and gas)<sup>2</sup>

With Australia's current greenhouse gas emissions of around 500 million per annum<sup>3</sup>, this means CCS projects can potentially offset ~870 years of Australia's annual emissions. This geological CO<sub>2</sub> storage capacity suggests that significant CO<sub>2</sub> reduction contributions can be expected via CCS for Australia.

Australia can also offer significant contributions to the world for materially reducing CO<sub>2</sub> emissions by enabling transboundary CCS projects that utilise Australia's abundant geological CO<sub>2</sub> storage sites. This presents a unique opportunity for Australia to assist its regional neighbours meet their Nationally Determined Contributions (NDCs) established under the

<sup>1</sup> Carbon Storage Taskforce (2009) "National Carbon Mapping and Infrastructure Plan – Australia" pages 28 and 31. Available at [https://www.parliament.wa.gov.au/parliament/commit.nsf/\(\\$lookupRelatedDocsByID\)/518FAC2BBA6C246648257C29002DB8E6/\\$file/NCM\\_Full\\_Report.pdf](https://www.parliament.wa.gov.au/parliament/commit.nsf/($lookupRelatedDocsByID)/518FAC2BBA6C246648257C29002DB8E6/$file/NCM_Full_Report.pdf)

<sup>2</sup> Carbon Storage Taskforce (2009) "National Carbon Mapping and Infrastructure Plan – Australia" pages 28 and 31. Available at [https://www.parliament.wa.gov.au/parliament/commit.nsf/\(\\$lookupRelatedDocsByID\)/518FAC2BBA6C246648257C29002DB8E6/\\$file/NCM\\_Full\\_Report.pdf](https://www.parliament.wa.gov.au/parliament/commit.nsf/($lookupRelatedDocsByID)/518FAC2BBA6C246648257C29002DB8E6/$file/NCM_Full_Report.pdf)

<sup>3</sup> Australian Government (2022) "Australia's Nationally Determined Contribution – Communication 2022" Page 7. Available at <https://unfccc.int/sites/default/files/NDC/2022-06/Australias%20NDC%20June%202022%20Update%20%283%29.pdf>

Paris Agreement. Such needs have already been confirmed by dCS, one of the Parties making this Joint Submission, via

1. Agreement executed between dCS and Nippon Steel Corporation (Japan's largest steel producer) to provide up to 5 million tonnes of CO<sub>2</sub> per annum from Nippon Steel Corporation's steelwork in Japan to CStore1 (dCS's commercial-scale floating CCS hub)<sup>4</sup>;
2. Agreement between dCS and Kansai Electric Power (Japan's 2<sup>nd</sup> largest power utility) to consider developing a supply chain for capturing and transporting up to 10 MTPA of CO<sub>2</sub> from Kansai Electric Power's power station in Japan to CStore1<sup>5</sup>.

Furthermore, on 13 November 2023, the Parliament of Australia passed the Environment Protection (Sea Dumping) Amendment (Using New Technologies to Fight Climate Change) Bill 2023. This is a major policy milestone for Australia, since this allows for the Australian Commonwealth Government to progress remaining key activities to enable transboundary CCS, including (1) engaging in detailed discussions with other nations such as Japan, Republic of Korea, and Singapore for executing bilateral agreements; and (2) submitting its declarations on the provisional application of the 2009 Amendment (of the London Protocol) with the International Maritime Organisation (IMO). I congratulate Australia for its ongoing efforts to enable transboundary CCS. In doing so, I expect that this would maximise economic opportunities for Australian businesses and employment as well as forge increased international collaboration and cooperation, to assist Asia Pacific nations accelerate global progress towards meeting their Paris Agreement goals.

#### Challenges for Australia

While noting the good progress being made in Australia to enable transboundary CCS, I also highlight that CCUS projects in Australia will need to compete with CCUS projects that are being considered in Asia Pacific nations such as Malaysia and Indonesia. While these countries do not have CCUS legislation fully in place (which gives Australia some advantage), these countries offer the following to its domestic and broader Asia Pacific region CO<sub>2</sub> emitters, investors and CCUS project proponents:

1. Vast CO<sub>2</sub> storage potential;
2. Proximity to domestic and broader Asia Pacific region CO<sub>2</sub> emitters;
3. Low project development cost;
4. Clear support for CCUS from all levels of the government, championed by head of state level government officials (i.e. prime minister / president of the nation). A good example of this is recent announcements between the Governments of Japan and Malaysia regarding their intent to enable transboundary CCS projects<sup>6</sup>.

<sup>4</sup> More information on dCS's agreement with Nippon Steel available at: [https://www.nipponsteel.com/en/news/20220214\\_100.html](https://www.nipponsteel.com/en/news/20220214_100.html)

<sup>5</sup> More information on dCS's agreement with Kansai Electric Power available in Japanese at [https://www.kepco.co.jp/corporate/notice/notice\\_pdf/20221130\\_2.pdf](https://www.kepco.co.jp/corporate/notice/notice_pdf/20221130_2.pdf) and in English at <https://www.deepcstore.com/news/co2offtake-kepco-deepcstore>

<sup>6</sup> Nikkei Asia, 25 September 2023. "Japan, Malaysia to discuss carbon storage with aim of 2028 start." Available at <https://asia.nikkei.com/Spotlight/Environment/Climate-Change/Japan-Malaysia-to-discuss-carbon-storage-with-aim-of-2028-start>

As mentioned in sections 1.2 and 3.4 of this document, dCS continues to experience “capital flight” first-hand; Prospective investors are providing feedback to our members that, “with the USA, EU and other jurisdictions offering favourable incentives for conducting CCUS activities in their jurisdictions, future funding availability to progress CCUS project development in Australia will be influenced by such opportunities.” In that context, I request for the review to consider multilateral and plurilateral initiatives, such as those being demonstrated between the Governments of Japan and Malaysia, to address the issue of “capital flight” from Australia (which is one of the direct consequences associated with carbon leakage risk).

*3.6 Other policy options for consideration - Are there additional policy options that should be considered alone or as part of a portfolio of approaches to address carbon leakage?*

IEA estimates that the CO<sub>2</sub> prices for electricity, industry and energy production in Australia and all other OECD countries (except Mexico) needs to achieve the following<sup>7</sup>:

1. US\$ 135 per tonne of CO<sub>2</sub> (2022 basis) under the Announced Pledge Scenario; and
2. US\$ 140 per tonne of CO<sub>2</sub> (2022 basis) under the Net Zero Emissions by 2050 Scenario

**Table 2.4 ► CO<sub>2</sub> prices for electricity, industry and energy production in selected regions by scenario**

USD (2022) per tonne of CO <sub>2</sub>	2030	2040	2050
<b>Stated Policies Scenario</b>			
Canada	130	150	155
Chile and Colombia	13	21	29
China	28	43	53
European Union	120	129	135
Korea	42	67	89
<b>Announced Pledges Scenario</b>			
Advanced economies with net zero emissions pledges <sup>1</sup>	135	175	200
Emerging market and developing economies with net zero emissions pledges <sup>2</sup>	40	110	160
Other emerging market and developing economies	-	17	47
<b>Net Zero Emissions by 2050 Scenario</b>			
Advanced economies with net zero emissions pledges	140	205	250
Emerging market and developing economies with net zero emissions pledges	90	160	200
Selected emerging market and developing economies (without net zero emissions pledges)	25	85	180
Other emerging market and developing economies	15	35	55

Note: Values are rounded.

<sup>1</sup> Includes all OECD countries except Mexico.

<sup>2</sup> Includes China, India, Indonesia, Brazil and South Africa.

Source: IEA GEC Model 2023.

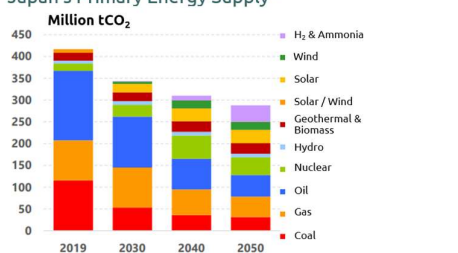
<sup>7</sup> International Energy Agency, 2023. “Global Energy and Climate Model Documentation 2023,” page 20. Available at <https://iea.blob.core.windows.net/assets/ff3a195d-762d-4284-8bb5-bd062d260cc5/GlobalEnergyandClimateModelDocumentation2023.pdf>

Furthermore, the Government of Japan estimates that Japan will need to support a CO<sub>2</sub> marginal abatement cost of approximately JPY 20,000 per tonne of CO<sub>2</sub> (approximately USD 182 per tonne of CO<sub>2</sub>) in 2030<sup>8</sup> to meet its interim target (as shown below).

## How CCS interfaces with Japan's Strategic Energy Plan 13

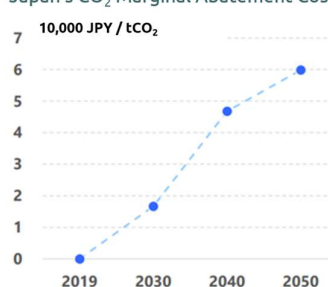
- METI has started to incorporate CCS as a key technology to form part of Japan's future Strategic Energy Plans.
- In the "Modelling of Decarbonisation Towards 2030 and 2050" presentation for the 50<sup>th</sup> Strategic Policy Committee Meeting:
  - CCS assumed for all scenarios to store CO<sub>2</sub> by 2050 (1) 100 MTPA via domestic & (2) additional 100 MTPA via overseas projects.
  - Marginal abatement cost increases rapidly, reaching around 20,000 JPY / tCO<sub>2</sub> (USD 182 / tCO<sub>2</sub> \*\*) in 2030 and 60,000 JPY / tCO<sub>2</sub> (USD 545 / tCO<sub>2</sub> \*\*) in 2050. (\*\*Assuming 1JPY = 0.00909 USD)

Japan's Primary Energy Supply\*



- \* Assuming 17 nuclear reactors operational for 60 years
- Energy consumption decreases to 2050, with % renewable energy increasing.
- % use of each carbon neutral fossil fuel alternative (CCS, carbon recycle, H<sub>2</sub> & ammonia, synthetic methane & oil, CO<sub>2</sub> transport etc) subject to assumptions.
- For Japan's energy system, one of the most important matters to address in the near term is to designate the most efficient carbon neutral technologies.

Japan's CO<sub>2</sub> Marginal Abatement Cost\*



- \* Assuming 17 nuclear reactors operational for 60 years

Source: METI (Sep 2022), "Modelling of Decarbonisation Towards 2030 and 2050" presentation for the 50<sup>th</sup> Strategic Policy Committee Meeting, pg 15, 19, 20, 21. Available at [https://www.enecho.meti.go.jp/committee/council/basic\\_policy\\_subcommittee/2022/050/050\\_005.pdf](https://www.enecho.meti.go.jp/committee/council/basic_policy_subcommittee/2022/050/050_005.pdf)

While noting that a significant increase in regional CO<sub>2</sub> prices is considered necessary for the Asia Pacific region to achieve its net zero targets, I highlight that a "cost containment measure" has been introduced as part of the Safeguard Mechanism reform whereby the Safeguard Mechanism facilities that exceed their baseline would be able to purchase ACCUs from the Government at a fixed price of AU\$75 in 2023-24, increasing with CPI plus 2 per cent each year.

Once the CBAM (or an equivalent carbon leakage policy) is implemented in Australia, I highlight that this price ceiling could be removed.

Regarding consideration to remove this price ceiling, I also suggest that a robust stakeholder engagement process be conducted by the Australian Commonwealth Government to ensure that carbon leakage risks are not increased, and that the associated impacts to the Australian industries that produce goods and commodities and the general Australian public, who are the ultimate end users of the goods and commodities, are understood and communicated.

### 4. Feasibility of policy options

#### 4.1 Guiding principles – What principles should guide Australian policies to prevent carbon leakage?

As mentioned in sections 1.1 of this document, Australia is ahead of other nations in the Asia Pacific region in addressing its emission reduction, with most nations within the Asia Pacific

<sup>8</sup> Japan's Ministry of Economy, Trade & Industry, Sep 2022. "Modelling of Decarbonisation Towards 2030 and 2050" presentation for the 50<sup>th</sup> Strategic Policy Committee Meeting, page 21. Available in Japanese at [https://www.enecho.meti.go.jp/committee/council/basic\\_policy\\_subcommittee/2022/050/050\\_005.pdf](https://www.enecho.meti.go.jp/committee/council/basic_policy_subcommittee/2022/050/050_005.pdf)



region significantly lagging in their pace for implementing emission reduction policies that reinforce the “polluter pays” principle. This lag will continue to be a key concern for not only the Australian industries that produce goods and commodities, but also for the general Australian public who are the ultimate end users of the goods and commodities.

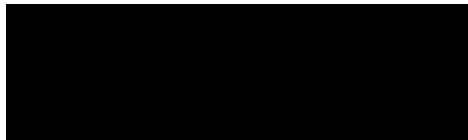
Therefore, the key principle that ought to be prioritised over all others is to level the playing field between domestic and foreign production in a timely manner. Policies that directly align with this key principle includes:

1. Incentivising manufacturing of cleaner (low / minimal emission intensity) products through clear policies that positively impact their commercial attractiveness;
2. Implementation of Australia’s CBAM
3. Multilateral and plurilateral initiatives, such as those being demonstrated between the Governments of Japan and Malaysia, to
  - a) address the issue of “capital flight” from Australia; and
  - b) demonstrate preference of decarbonised product (e.g., steel, cement, ammonia, or hydrogen) over the "standard" carbon-intensive conventional product alternatives.

## 5. Closing

Thank you very much for the opportunity to provide this submission.

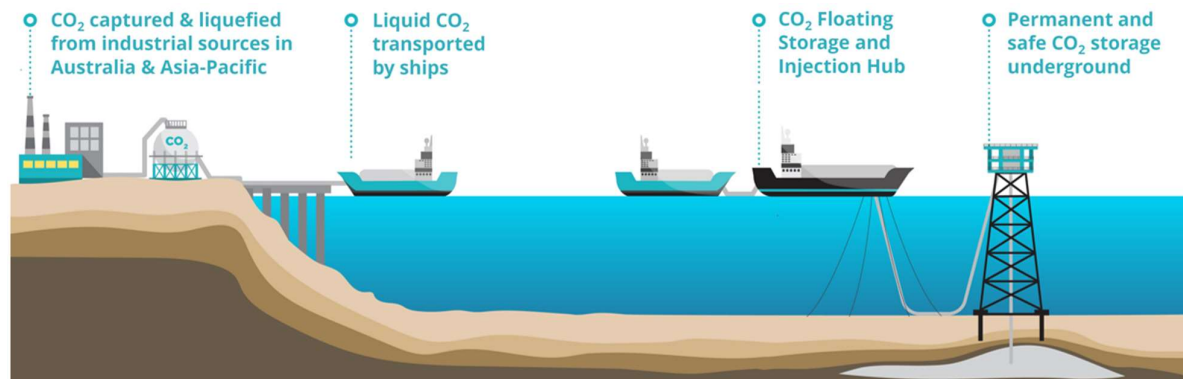
Regards,



Daein Cha  
Managing Director, deepC Store Pty Ltd

## Appendix – Overview of deepC Store Pty Ltd (“dCS”)

dCS is an Australian company headquartered in Perth and a CCS project developer and operator. Our flagship project “**CStore1**” has a first mover position in the Asia Pacific region as an offshore floating CCS hub (image below). CStore1 covers all of the value chain of CCS, that is, liquefaction of CO<sub>2</sub> onshore, transport by ships to the hub, and injection from the floater.



*Image of CStore1*

dCS partners with major Japanese energy and shipping companies (JX Nippon Oil & Gas Exploration Corporation (“**JX NOEX**”), Kyushu Electric Power, Mitsui OSK Lines (“**MOL**”), Osaka Gas (“**OG**”) & Toho Gas), Commonwealth Scientific and Industrial Research Organisation (CSIRO), Technip Energies and ABL Group to deliver CStore1. Our partners bring significant experience and expertise to develop our CStore1, including those as technical experts, operators of large-scale industrial facilities and ships, potential CO<sub>2</sub> suppliers and prospective investors in CStore1. Key development milestones include:

1. Identified supply sources of up to ~15 Million Tonnes Per Annum (“**MTPA**”) of CO<sub>2</sub> to underpin several CStore1 development.
  - a. Agreement executed with Nippon Steel Corporation (Japan’s largest steel producer) to consider providing up to 5 million tonnes of CO<sub>2</sub> per annum to CStore1<sup>9</sup>;
  - b. Agreement executed with Kansai Electric Power (Japan’s 2<sup>nd</sup> largest power utility) to consider developing a supply chain for capturing and transporting up to 10 MTPA of CO<sub>2</sub> from KEPCO’s power station to CStore1<sup>10</sup>;
2. Joint bid submitted with JX NOEX for GHG acreage offshore Australia<sup>11</sup>;
3. Letter of Intent executed with Mitsui O.S.K. Lines and Technip Energies in relation to the Pre-FEED, FEED, EPCI and O&M services for the FSI Hub facility for CStore1<sup>12</sup>;
4. Launched low pressure LCO<sub>2</sub> transportation R&D project with Future Energy Exports CRC, Low Emission Technology Australia, JX NOEX, MOL & OG ([link](#)); and

CStore1 is currently in pre-FEED phase, with operations aimed to start by 2030.

End

<sup>9</sup> More information on dCS’s agreement with Nippon Steel available at:

[https://www.nipponsteel.com/en/news/20220214\\_100.html](https://www.nipponsteel.com/en/news/20220214_100.html)

<sup>10</sup> More information on dCS’s agreement with Kansai Electric Power available in Japanese at

[https://www.kepco.co.jp/corporate/notice/notice\\_pdf/20221130\\_2.pdf](https://www.kepco.co.jp/corporate/notice/notice_pdf/20221130_2.pdf) and in English at

<https://www.deepcstore.com/news/co2offtake-kepco-deepcstore>

<sup>11</sup> More information on dCS’s joint bid with JX NOEX available at: [https://www.nex-jx-](https://www.nex-jx-group.co.jp/english/newsrelease/2022/joint_bid_for_a_greenhouse_gas_assessment_permit_for_a_greenhouse_gas_storage_creation_release_area_i.html)

[group.co.jp/english/newsrelease/2022/joint\\_bid\\_for\\_a\\_greenhouse\\_gas\\_assessment\\_permit\\_for\\_a\\_greenhouse\\_gas\\_storage\\_creation\\_release\\_area\\_i.html](https://www.nex-jx-group.co.jp/english/newsrelease/2022/joint_bid_for_a_greenhouse_gas_assessment_permit_for_a_greenhouse_gas_storage_creation_release_area_i.html)

<sup>12</sup> More information on dCS’s letter of intent available at: [https://www.technipenergies.com/en/media/news/technip-energies-](https://www.technipenergies.com/en/media/news/technip-energies-deepc-store-and-mitsui-osk-lines-join-forces-floating-carbon-capture-storage-hub)

[deepc-store-and-mitsui-osk-lines-join-forces-floating-carbon-capture-storage-hub](https://www.technipenergies.com/en/media/news/technip-energies-deepc-store-and-mitsui-osk-lines-join-forces-floating-carbon-capture-storage-hub)