

CARBON CAPTURE & STORAGE – EXPANDED REGULATORY FRAMEWORK¹²³⁴⁵

INTRODUCTION

The Government has materially expanded the existing regulatory framework for so-called "carbon capture and storage" via a newly issued presidential regulation directed at helping to realize the achievement of Indonesia's ambitious goal of net zero greenhouse gas emissions by 2060.

A degree of uncertainty still surrounds the viability of large-scale implementation of the currently available technology for carbon capture and storage. The Government, however, clearly sees carbon capture and storage as having some potential to become at least part of the solution to the greenhouse gas emissions problem in Indonesia. At the same time, the Government also hopes to make Indonesia a regional hub for carbon capture and storage.

While the main focus of the new presidential regulation is the use of carbon capture and storage in the local upstream oil and gas industry, it also extends to the capture, transportation and storage of carbon from greenhouse gas emissions produced by the electricity generating industry and other activities relevant to the local mining industry. Further, local mining concession areas are specifically identified in the new presidential regulation as being promising locations to host carbon capture and storage facilities.

In this article, the writer will review the main provisions of the new presidential regulation on carbon capture and storage before briefly considering the likely significance or otherwise of this expanded regulatory framework in achieving Indonesia's ambitious climate change goals as well as its aspirations to become the regional hub for carbon capture and storage.

BACKGROUND

In 2016, Indonesia ratified the Paris Agreement entered into pursuant to the United Nations Framework Convention on Climate Change (**Paris Agreement**).

As part of its updated Nationally Determined Contribution (**NDQ**) under the Paris Agreement, Indonesia made a 2021 commitment to achieve net zero greenhouse gas emissions (**GHG Emissions**) (**NZE**) by 2060 at the latest and with an interim 2030 target of a reduction in Indonesia's GHG Emissions of between 29% (without international assistance) and 41% (with international assistance) (**Updated NDC**).

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In late October 2021, Presidential Regulation No. 98 of 2021 re Implementation of Carbon Economic Value to Achieve Updated NDC and NZE in National Development (**PR 98/2021**) was issued.

Among other things, PR 98/2021 outlines the broad parameters of Indonesia's approach to "climate change mitigation" and "climate change adaptation" through the implementation of the concept of Carbon Economic Value or "*Nilai Ekonomi Karbon*" (**NEK**).

PR 98/2021 makes clear that the implementation of NEK is to be realized through a combination of (i) carbon trading, (ii) performance-based payments, (iii) charges on carbon and (iv) "<u>other mechanisms reflecting the development of science and technology</u>".

"Carbon capture and storage" (CC&S) is one of the "other mechanisms reflecting the development of science and technology" contemplated by PR 98/2021 as providing a possible "path" for the future implementation of NEK and the consequent realization of Indonesia's Updated NDC and NZE.

CC&S is a "menu" of business activities that involve any or all of (i) capturing and processing carbon dioxide, with certain concentration specifications, originating from GHG Emissions produced by upstream oil and gas business activities, <u>electricity generating activities</u>, industry and other GHG Emissions producing activities, whether domestic or foreign (Carbon) (Carbon Capture), (ii) transporting captured and processed Carbon, from the point of harvesting and/or processing, to designated geographic areas (including mining concession areas) with proven geological formations comprising rock systems capable of storing injected Carbon (ZTIs) (Carbon Transportation) and (iii) injecting and storing Carbon in ZTIs safely, permanently and in accordance with applicable environmental safety standards (Carbon Storage Operation).

Each of Carbon Capture, Carbon Transportation and Carbon Storage Operation is, potentially, a discrete revenue generating business activity that may be pursued, independently of or in conjunction with any other CC&S business activity, by recognized legal entities and once the required approvals, authorities, licenses and permits are obtained.

On 30 January 2024, Presidential Regulation No. 14 of 2024 re Organization of Activities of Carbon Capture & Storage (**PR 14/2024**) was issued. An earlier and much more limited Minister of Energy & Mineral Resources (**MoEMR**) regulation dealing with certain aspects of CC&S (<u>i.e.</u>, MoEMR Regulation No. 2 of 2023 re Implementation of Carbon Capture & Storage as well Capture Use & Storage of Carbon, as part of Upstream Oil & Gas Business Activities) remains in force to the extent that it is not inconsistent with PR 14/2024.

ANALYSIS AND DISCUSSION

1. **Overview of PR 14/2024**

PR 14/2024 makes provision for two quite different legal bases for carrying out CC&S, being (i) a "cooperation contract" based approach and (ii) a "permit" based approach.

"Cooperation contracts" (KKSs) are (i) upstream oil and gas exploration and exploitation contracts, (ii) entered into by the Special Task Force for Upstream Oil & Gas Business Activities (SKK Migas) or the Aceh Oil & Gas Management Agency (BPMA), (iii) with a business entity or permanent establishment (Contractor) and (iv) covering a particular geographical area that is believed to contain oil and/or gas (Working Area). KKSs include (i) production sharing contracts providing for

operating cost recovery by the Contractor, (ii) gross split profit-sharing contracts and (iii) other forms of KKS. The upstream oil and gas industry focus of CC&S, carried out pursuant to KKSs (**KKS-Based CC&S**), is clear. However, even KKS-Based CC&S may involve Carbon resulting from GHG Emissions produced by <u>non</u>-upstream Oil & gas activities (eg, electricity generation) and which is the subject of Carbon Transportation to and Carbon Storage in Working Areas.

"Permits" are (i) permits to conduct ZTI exploration in a designated "Carbon Storage Permit Area" (Exploration) (Exploration Permits), (ii) permits to carry out Carbon Transportation (Carbon Transportation Permits) and (iii) permits to operate and manage Carbon Storage Operation (Carbon Storage Operation Permits) (together, Permit-Based CC&S). Holders of Exploration Permits, Carbon Transportation Permits and Carbon Storage Operation Permits are <u>not</u> confined to Contractors. Likewise, geographic areas where Carbon Storage Operation activities may be carried out (Carbon Storage Operation Permit Areas) are <u>not</u> confined to Working Areas but, rather, are much more broadly defined so as to include "certain areas in the territory of Indonesia designated for [CC&S]". More particularly, Carbon Storage Permit Areas are designated parts of (i) "open areas" (<u>i.e.</u>, geographic areas with no specific classification), (ii) <u>mining business license/permit areas</u> (<u>WIUPs</u>) and/or (iii) Working Areas. As such, Permit-Based CC&S is <u>not</u> confined to the upstream oil & gas industry alone but, rather, has a much broader potential coverage. Both Indonesian business entities (BUs) and Indonesian permanent establishments of foreign companies (BUTs) may carry out Permit-Based CC&S so long as they obtain the necessary Permits.

Although CC&S, in respect of domestic source Carbon, is the primary focus of PR 14/2024, PR 14/2024 also envisages that foreign source Carbon <u>may</u> be the subject of CC&S activities in Indonesia, <u>subject to various limitations</u>.

Finally, PR 14/2024 deals with a broad range of CC&S supporting activities and other related matters including (i) measurement, reporting and verification of data and information generated from CC&S (MRV), (ii) operational safety and environmental sustainability of CC&S, (iii) termination of CC&S activities, (iv) revenue and taxation of revenue generated from CC&S activities, (v) guidance and supervision of CC&S and (vi) sanctions for non-compliance with CC&S obligations/requirements among other things (together, Other CC&S Related Matters).

Given the length of PR 14/2024, it is only possible, in this article, to deal with **some** of the more important aspects of (i) KKS-Based CC&S, (ii) Permit-Based CC&S and (iii) Other CC&S Related Matters.

2. KKS-Based CC&S

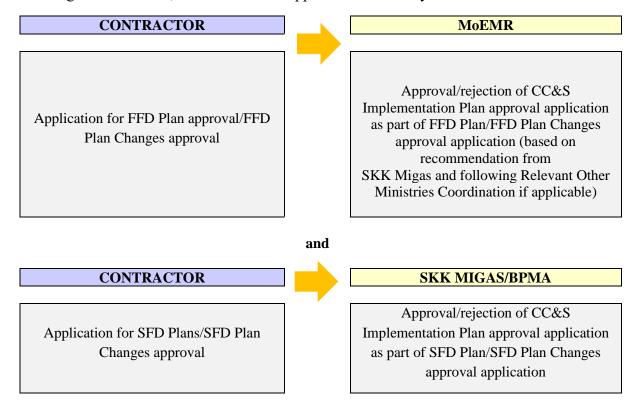
2.1 CC&S Implementation Plans: Contractors wanting to carry out CC&S in Working Areas must apply for and obtain prior approval from (i) MoEMR in respect of their proposed first field development plans (FFD Plans)/proposed changes to their previously approved FFD Plans (FFD Plan Changes) or (ii) SKK Migas/BPMA in respect of any subsequent FFD Plans (SFD Plans)/proposed changes to previously approved SFD Plans (SFD Plan Changes) (KKS CC&S Approval Process).

The KKS CC&S Approval Process involves the following steps:

(a) submission of an application, together with an implementation plan for the particular CC&S activities that the relevant Contractor is proposing to engage in (CC&S Implementation Plan) and a Carbon Storage capacity certificate, through SKK

- Migas or BPMA depending upon which of these regulatory authorities is the counterparty to the relevant KKS;
- (b) in those instances where the CC&S Implementation Plan involves proposed changes to the relevant Working Area, co-ordination between the Ministry of Energy & Mineral Resources (**ESDM**) and (i) the Ministry with responsibility for overseeing spatial planning, (iii) the Ministry of Environment & Forestry (**MoEF**) and (iii) the Ministry of Maritime Affairs & Fisheries (**Relevant Other Ministries Coordination**);
- (c) recommendation from SKK Migas or BPMA re approval or rejection of the CC&S Implementation Plan in the case of FFD Plans/FFD Plan Changes; and
- (d) MoEMR or SKK Migas/BPMA approval or rejection decision which, in the case of Working Areas in Aceh, requires co-ordination with the Governor of Aceh (Article 5 of PR 14/2024).

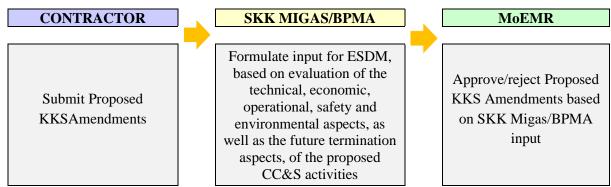
In diagrammatic form, the KKS CC&S Approval Process may be summarized as follows:



- 2.2 **Implementing CC&S with Carbon from Outside Upstream Business Activities:** In those instances where the relevant CC&S Implementation Plan involves the utilization of Carbon that is the result of GHG Emissions from activities other than upstream oil & gas business activities (**eg**, electricity generation), additional consideration is required by SKK Migas in respect of FFD Plans or FFD Plan Changes as the case may be (Article 6 of PR 14/2024).
- 2.3 **Amendments to KKS:** If and when a CC&S Implementation Plan is approved, this must be reflected in appropriate amendments to the underlying KKS (**Proposed KKS Amendments**), including with respect to the Contractor's CC&S implementation responsibilities, something which requires (i) submission of the proposed KKS amendments by the Contractor, (ii) SKK

Migas evaluation of the technical, economic, operational, safety and environmental aspects, as well as the future CC&S termination aspects, of the Contractor's CC&S implementation responsibilities, (iii) submission of SKK Migas's evaluation results to MoEMR and (iv) MoEMR's approval/rejection of the Proposed KKS Amendments following consultation with the Governor of Aceh in the case of Working Areas located in Aceh (**KKS Amendment Process**) (Article 7 of PR 14/2024).

In diagrammatic form, the KKS Amendment Process may be summarized as follows:



- Use of Depleted Reservoirs and Saline Aquifer Storage: For the purpose of implementing CC&S in a Working Area, the relevant Contractor may make use of any (i) Salty Aquifer Storage (i.e., below surface rock formations that are porous, permeable and contain groundwater with salts/dissolved minerals etc) and (ii) depleted oil & gas reservoirs in that Working Area (Article 8(1) of PR 14/2024).
- 2.5 **Utilization of CC&S Facilities by Emitters:** Parties, carrying on activities that emit/generate/produce GHG Emissions may utilize a Contractor's CC&S facilities so long as this proposed utilization meets as yet unspecified technical, economic and operational security requirements (Article 8(2) of PR 14/2024).
- 2.6 **Potential for Expansion of Working Areas:** Contractors may seek MoEMR approval for the proposed expansion of their Working Areas in those instances where an established ZTI, that can be used as a Carbon Storage site, extends beyond the boundaries of the existing Working Area.

Applications for Working Area expansion are approved or rejected by MoEMR (i) on the basis of SKK Migas recommendation and (ii) following Relevant Other Ministries Coordination.

In the event a Working Area expansion application is approved, the relevant KKS is to be amended to reflect this Working Area expansion (Article 8(5), (6), (7) and (8) of PR 14/2024).

3. **Permit-Based CC&S**

3.1 **Need for Exploration Permits and Carbon Storage Operation Permits:** Business actors (<u>i.e.</u>, BUs/BUTs), wanting to carry out CC&S in Carbon Storage Permit Areas, must obtain Exploration Permits and Carbon Storage Operation Permits (Article 9 of PR 14/2024).

There are restrictions on the business actors which may obtain different types of permits as follows:

| True of Downit | Business Actor | |
|--------------------|----------------|-----|
| Type of Permit | BU | BUT |
| Exploration Permit | X | X |
| Carbon Storage | X | |
| Operation Permit | | |

Exploration Permits and Carbon Storage Operation Permits are issued by MoEMR and cover specified parts of particular Carbon Storage Permit Areas. As such and before an Exploration Permit and/or Carbon Storage Operation Permit can be obtained, the relevant geographic area must, first, be prepared, determined and offered as a Carbon Storage Permit Operation Area (WIPK).

3.2 **Preparation, Determination and Offering of WIPKs:** The preparation and determination of WIPKs is carried out <u>either</u> (i) independently by ESDM <u>or</u> (ii) by ESDM based on a proposal submitted by an interested BU/BUT. In the case of each alternative, WIPK preparation and determination involves/requires (i) initial risk assessment and (ii) technical evaluation of available data or the undertaking of general surveys (Article 10 of PR 14/2024).

WIPKs are offered to BUs/BUTs which have (a) technical capabilities related to (i) upstream oil & gas business activities, (ii) **mining business activities** and/or (iii) geothermal business activities, (b) demonstrated technical capabilities related to the management of hazardous and toxic materials and (c) the financial capability/resources required to carry out Exploration and/or Carbon Storage Operation in the relevant WIPK.

The WIPK offering process may take the form of either (i) "limited selection" (<u>i.e.</u>, direct appointment in the case of WIPKs proposed by BUs/BUTs or (ii) public auction in the case of WIPKs independently prepared/determined by ESDM.

Consortiums of BUs/BUTs (with a designated authorized operator appointee) may participate in the limited selection/public auction process.

The "winner" of the WIPK offering process applies for and receives an Exploration Permit in respect of the relevant WIPK vis the online single submission business licensing system (**OSS System**). Alternatively, the "winner" may appoint an affiliate or create a new entity (directly owned and controlled by the "winner") for the purpose of applying for/receiving the Exploration Permit.

The would-be recipient of an Exploration Permit must, first, fulfil various (i) administrative requirements, (ii) technical requirements, (iii) environmental requirements and (iv) financial requirements (Articles 11 to 16 of PR 14/2024).

In diagrammatic form, the process of preparing, determining and offering WIPKs may be summarized as follows:

PREPARATION/DETERMINATION STACE

ESDM prepares WIPKs for determination based on (i) initial risk assessment and (ii) technical evaluation of data-processing results

(BUs/BUTs may propose WIPK preparation to be conducted by ESDM)



ESDM determines WIPKs, together with the permitted CC&S business activities, which will be offered to BUs/BUTs

OFFERING STAGE

Auction

ESDM offers WIPKs to BUs/BUTs through auctions which are to be carried out in accordance with the principles of openness, fairness, accountability and fair competition



ESDM offers WIPKs to BUs/BUTs through limited selection in the case of WIPKs proposed by BUs/BUTs



 \mathbf{or}

IDENTIFICATION/ GRANT STAGE

ESDM identifies the winner of the WIPK auction or WIPK limited selection process and specifies the principal provisions regarding allowed/permitted CC&S business activities



ESDM grants an Exploration Permit to the winner, following the winner's application for an Exploration Permit, via the OSS System

- 3.3 **Exploration Permits:** Exploration Permits (i) are for an initial period of 6 years and (ii) may be extended once only for a further period of 4 years (Article 17(1) of PR 14/2024).
- 3.4 **Restrictions on Exploration Permit Holders:** Exploration Permit holders are prohibited from transferring their Exploration Permits (Article 17(2) of PR 14/2024).

Any proposed transfer of the issued shares of an Exploration Permit holder (i) is only possible, in the case of a majority shareholding interest, after the relevant Exploration Permit holder has fulfilled all of its Exploration commitments and (ii) requires prior MoEMR approval (Article 19 of PR 14/2024).

3.5 **Development & Operation Plans:** In the event Exploration results establish that the relevant WIPK has commercial potential for Carbon Storage Operation, the relevant Exploration Permit holder may submit, to MoEMR, a ZTI development and operation plan which covers,

among other things, (i) a proposal for Carbon Capture, Carbon Transportation and Carbon Storage Operation, (ii) Carbon Storage capacity estimation, (iii) numerous ZTI technical specifications, (iv) the proposed injection period, (v) a design and implementation plan for injection well drilling, (vi) Carbon reduction estimates, (vii) economic analysis, (viii) risk assessment and mitigation for long term Carbon storage, (ix) Carbon Storage capacity utilization plan and (x) monitoring and MRV plan (**Development & Operation Plan**).

The Development & Operation Plan must be accompanied by a Carbon Storage capacity certificate.

The Development & Operation Plan is subject to approval or rejection by MoEMR (Articles 20 to 22 of PR 14/2024).

3.6 **Carbon Storage Operation Permits:** Carbon Storage Operation Permits are only granted to BUs, **not** to BUTs.

BUTs wanting to engage in Carbon Storage Operation must, first, establish a BU for the purpose of obtaining a Carbon Storage Operation Permit.

Exploration Permit holders, with ESDM approved Development & Operation Plans, are automatically entitled to (i) Carbon Storage Operation Permits or (ii) have their newly established and wholly owned BUs obtain Carbon Storage Operation Permits (Article 23 of PR 14/2024).

Carbon Storage Operation Permits are granted/issued (i) by MoEMR, (ii) via OSS System application and (iii) following the satisfaction of various administrative, technical, environmental and financial requirements (Article 24 of PR 14/2024).

Carbon Storage Operation Permits (i) are for an initial period of <u>not more than</u> 30 years and (ii) may be extended multiple times for a period of <u>not more than</u> 20 years in the case of each extension, taking into account Carbon Storage capacity (Article 25(1) of PR 14/2024).

- 3.7 **Obligations of Storage Operation Permit Holders:** Carbon Storage Operation Permit holders are obliged to: (i) submit an annual work plan for the implementation of Carbon Storage Operation activities, (ii) obtain MoEMR approval before carrying out any Carbon Storage Operation activities and (iii) in the event that changes are proposed to the Carbon Storage Operation activities, which necessitate changes to the scope of existing environmental approvals, Carbon Storage Operation Permit holders must, first, obtain approval from MoEF (Article 26 of PR 14/2024).
- 3.8 **Restrictions on Storage Operation Permit Holders:** Carbon Storage Operation Permit holders are prohibited from transferring their Carbon Storage Operation Permits (Article 25(2) of PR 14/2024).

Any proposed transfer of the issued shares of a Carbon Storage Operation Permit holder requires, in the case of a majority shareholding interest, prior ESDM approval that should take into account the importance of ensuring the continuity of safe, permanent Carbon Storage Operation activities in accordance with the provisions of the relevant Carbon Storage Operation Permit (Article 27 of PR 14/2024).

4. <u>CC&S Implementation</u>

- 4.1 **Commonality Among KKS-Based CC&S and Permit-Based CC&S:** The stages or/steps involved in actually carrying out/implementing CC&S, as well as the various business activities comprising CC&S, are the same for/common to (i) Contractors wanting to undertake KKS-Based CC&S and which Contractors have successfully completed the CC&S Approval Process/KKS Amendment Process and (ii) BUs/BUTs wanting to undertake Permit-Based CC&S and which BUs/BUT established BUs have obtained Carbon Storage Operation Permits (**CC&S Implementation**) (Articles 29 to 35 of PR 14/2024).
- 4.2 **CC&S Implementation Stages/Steps:** CC&S Implementation always involves the following stages or steps:
 - (a) risk-mitigation in respect of long-term Carbon storage;
 - (b) environmental, social and public engagement in accordance with relevant environmental approvals;
 - (c) engineering, procurement and construction of Carbon Storage Operation facilities;
 - (d) commissioning and operation of Carbon Storage Operation facilities;
 - (e) implementation of Carbon Storage Operation safety management;
 - (f) management of environmental aspects of Carbon Storage Operation;
 - (g) emergency response activities when required;
 - (h) Carbon Storage Operation facility repair and maintenance activities when required;
 - (i) MRV;
 - (i) eventual cessation/closure/termination of CC&S activities; and
 - (k) post-cessation/post-closure/post-termination of CC&S activities monitoring (Article 28(3) of PR 14/2024).
- 4.3 **CC&S Implementation Business Activities:** The key features of and requirements for the carrying out of the various individual business activities that make up CC&S Implementation may be summarized as follows:

| CC&S IMPLEMENTATION | | | |
|---------------------|--|--|--|
| ACTIVITY | DETAILS | | |
| Carbon Capture | (1) Carbon Capture Mechanisms: Carbon Capture may be conducted | | |
| | through the following mechanisms: | | |
| | (a) Carbon separation at oil and gas production facilities; | | |
| | (b) Carbon Capture from combustion; | | |
| | (c) pre-ignition capture; | | |
| | (d) oxyfuel combustion capture; | | |
| | (e) direct air capture; and/or | | |

| CC&S IMPLEMENTATION | | |
|--|--|--|
| ACTIVITY | DETAILS | |
| | (f) other mechanisms in accordance with scientific and technological developments. | |
| | (2) Purification: The captured Carbon is processed and purified further in accordance with good engineering principles so as to meet certain specifications and in order that it may be (i) transported and (ii) injected safely. | |
| Carbon Transport | (1) Carbon Transport Business Activities: Carbon Transport business activities may be carried out by: | |
| | (a) by (i) BUs and (ii) Carbon Storage Operation Permit holders; and (b) after obtaining Carbon Transport Permits from MoEMR and/or the Minister of Transportation (MoTr) except as provided in (3) below. | |
| | (2) Carbon Transport Mediums: Carbon Transport may be conducted through the following mediums: (a) pipelines; (b) trucks; (c) ships; and/or | |
| | (d) other mediums in accordance with scientific and technological developments. | |
| | (3) KKS-Based CC&S: Carbon Transport activities, conducted by Contractors, do <u>not</u> require a Carbon Transport Permit if the Carbon Transport is carried out: (a) in the same Working Area; or (b) from one Working Area to another Working Area. | |
| | The plan for Carbon Transport activities must be (i) included as part of the CC&S implementation Plan and (ii) approved by SKK Migas. | |
| | (4) Permit-Based CC&S : Carbon Storage Operation Permit holders, carrying out Carbon Transport activities, are required to have Carbon Transport Permits. | |
| Injection and Carbon Storage | Injection and Carbon Storage may take place in the following ZTI features: (a) depleted reservoirs; (b) Salty Aquifer Storage; and/or (c) coal seams. | |
| Carbon Storage Capacity for Domestic Needs | As available Carbon Storage capacity is prioritized for domestic Carbon producers, Contractors and Permit Holders are required to allocate at least 70% of their total Carbon Storage capacity to domestic Carbon Storage and, accordingly, a maximum of 30% only of their total Carbon Storage capacity may be used for the storage of Carbon originating from overseas. | |
| | Domestic Storage of Carbon, originating from overseas, is only allowed in the case of Carbon producers carrying out investment and/or affiliated with investments in Indonesia. | |

5. Other CC&S Related Matters

Monetization Alternatives: Contractors and Carbon Storage Operation Permit holders have different alternatives available to them for the purpose of monetizing their CC&S Implementation activities (Article 42 of PR 14/2024). The available alternatives are set out in the following table:

| | KKS-Based CC&S | Permit-Based CC&S |
|--------------------------|--|--|
| Monetization Alternative | Contractors | Carbon Storage Operation Permit holders |
| Storage Fee | X | X |
| Other Forms | X | |
| | (income obtained by Contractors, in the form of storage fees or otherwise, are subject to tax in accordance with prevailing laws and regulations on tax treatment of upstream oil & gas business activities) | (storage fee income obtained by Carbon Storage Operation Permit holders are subject to tax state revenue imposts (i.e., royalties) in accordance with the prevailing laws and regulations on taxation) |

5.2 **CC&S Implementation Incentives:** In order to support CC&S implementation, the Government may provide incentives to Contractors and Carbon Storage Operation Permit holders (Article 43 of PR 14/2024). The available incentives are set out in the following table:

| | KKS-Based CC&S | Permit-Based CC&S |
|------------|------------------------------------|---|
| Incentives | Contractors | Carbon Storage Operation Permit holders |
| Tax | X | X |
| Non-Tax | X | X |
| | (provided in accordance with | (provided in accordance with the |
| | prevailing laws and regulations on | prevailing laws and regulations on |
| | tax treatment of upstream oil & | taxation) |
| | gas business Activities) | |

5.3 **Ownership of Assets for CC&S Implementation**: The ownership of assets used for CC&S Implementation purposes, by Contractors and Carbon Storage Operation Permit holders, are subject to various limitations/restrictions (Article 44 of PR 14/2024). These limitations/restrictions are set out in the following table:

| KKS-Based CC&S | Permit-Based CC&S |
|---|---|
| Contractors | Carbon Storage Operation Permit holders |
| All goods and equipment purchased by | All goods and equipment purchased by Carbon |
| Contractors and used directly in CC&S | Storage Operation Permit holders become the |
| Implementation become State property the | property of the relevant Carbon Storage |
| management of which is carried out in | Operation Permit holder |
| accordance with the laws and regulations on | |
| State property | |

5.4 **Cross-Border Carbon Transport:** In order to facilitate the implementation of cross-border Carbon Transport, it is envisaged that States will conclude bilateral cooperation agreements (**Bilateral Cooperation Agreements**). These Bilateral Cooperation Agreements are intended to serve as guidelines for the issuance of recommendations or permits necessary for cross-

border Carbon Transport in accordance with the prevailing laws of each State (Articles 45 to 47 of PR 14/2024).

In drafting Bilateral Cooperation Agreements, States are expected to take into consideration the following matters:

- (a) international regulations regarding cooperation in the context of climate change mitigation; and
- (b) every Carbon Transport activity, involving entry into Indonesia's customs territory, must be carried out using a transport mode that meets relevant engineering standards and complies with applicable Indonesian laws and regulations in respect of safety, occupational health and environmental protection.

On 15 February 2024, Singapore signed a letter of intent with Indonesia providing for the establishment of a working committee to undertake the preparation of a Bilateral Cooperation Agreement between the two countries. This proposed Bilateral Cooperation Agreement is intended to eventually enable Singapore to transport Carbon, resulting from electricity generating activities in Singapore, to Indonesia for Carbon Storage Operation.

5.5 **Registration of Imported Carbon:** Carbon transported into Indonesia's customs territory must be registered by the importer at least <u>once</u> at the time of the first importation and in accordance with the prevailing laws and regulations.

SUMMARY & CONCLUSIONS

As is the common legislative practice in Indonesia, PR 14/2024 provides a very "broad brush" outline only of the expanded regulatory framework for CC&S.

In numerous places, PR 14/2024 highlights that future ministerial regulations will supply the details of how various aspects of the expanded regulatory framework for CC&S are going to work in practice.

The absence, at this time, of the contemplated implementing regulations makes it difficult to draw any firm conclusions now as to whether or not the expanded regulatory framework for CC&S is "investor friendly" and, therefore, likely to spur a significant investment in CC&S. As such, it is too early to say to what extent, if at all, CC&S will materially assist Indonesia achieve its Updated NDC and NZE as well as its ambitions to be a regional hub for CC&S.

Indonesia's CC&S regulatory framework remains a "work in progress" that warrants careful monitoring.

Realistically and even with "investor friendly" implementing regulations in place, it will only be if and when the remaining technological impediments, to large scale, effective and efficient CC&S, can be overcome that CC&S is likely to make any meaningful contribution to the future implementation of NEK and the consequent realization of Indonesia's Updated NDC and NZE as well as of its regional CC&S hub ambitions. However, Singapore's recently expressed interest in having a Bilateral Cooperation Agreement with Indonesia, for the transport to and storage in Indonesia of Carbon originating from Singapore, is a promising sign that, at least, Indonesia's regional CC&S hub ambitions may have some substance to them.

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