

Carbon Capture and Storage in Indonesia: An Opportunity Raised by the US' Withdrawal from the Paris Agreement

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To demonstrate Indonesia's commitment to achieving its climate goals and contributing to the objectives of the Paris Agreement, the Government issued Presidential Regulation No. 14 of 2024 concerning the Organization of Carbon Capture and Storage Activities ("PR 14/2024"). Building on this foundation, the Ministry of Energy and Mineral Resources issued Regulation No. 16 of 2024 on 20 December 2024 that addresses the Implementation of Carbon Storage Activities in Carbon Storage Permit Areas for Carbon Capture and Storage Activities ("MEMR Reg 16/2024"), and which serves as the implementing regulation for PR 14/2024. The new regulation also serves as an addition to the current framework governing carbon implementation, capture, storage, and utilization in the upstream oil and gas sector. This framework is outlined in MEMR Regulation No. 2 of 2023, which addresses carbon capture and storage (CCS) as well as carbon capture, utilization, and storage (CCUS) activities within upstream oil and gas operations (MEMR 2/2023).

MEMR Reg 16/2024 represents a significant milestone that offers more legal certainty to business actors by providing clear guidance and a comprehensive regulatory framework for implementing Carbon Capture and Storage ("CCS") activities. This article focuses on key aspects of the MEMR Reg 16/2024, particularly related to the permits required for the CCS operations.

Carbon Storage Permits Areas

The Ministry of Energy and Mineral Resources ("MEMR") through the Director General of Oil and Gas is responsible for establishing policies for the preparation, designation, and offering of Carbon Storage Permit Areas (*Wilayah Izin Penyimpanan Karbon* or "WIPK"). The preparation of a WIPK is based on technical, economic, risk, and efficiency considerations. The goal of the policy is to assess the potential for CCS in designated areas.

Once designated, these WIPK areas are offered to businesses through either a competitive auction process or a limited selection process. In the competitive auction (*lelang wilayah*), the government prepares the area, and businesses can participate after announcements are made via electronic media or WIPK promotions. This auction

is open to all business entities and Permanent Establishments (*Badan Usaha Tetap* or "BUT") and the auction period lasts for 60 days. In contrast, the limited selection (*seleksi terbatas*) process is typically for areas proposed by business entities or BUTs. Only the proposer and entities (including BUT) on a pre-approved shortlist (*daftar terbatas*), determined by the MEMR, can participate in this type of auction. Furthermore, participants in both auction processes may form a consortium, with the condition that such a consortium is binding and cannot be revoked until the Exploration Permit is granted if the consortium is declared the auction winner.

It's important to note that the auction winners are required to provide a performance guarantee from a general bank registered with the Financial Services Authority (OJK). The guarantee is 10% of the total commitment for carbon Injection Target Zone (*Zona Target Injeksi* or "ZTI") exploration, or a minimum of USD1,500,000, whichever is higher, along with a statement of willingness to cover the remaining ZTI exploration commitment. Once the Exploration Permit holder has fulfilled the definite ZTI exploration commitment, the performance guarantee will be returned.

These WIPK areas can be located in 1 (one) of 3 (three) specific areas: (i) open areas (*wilayah terbuka*), (ii) Mining Business Permit Areas (*Wilayah Izin Usaha Pertambangan* or “**WIUP**”), and (iii) Working Areas (*Wilayah Kerja*), where exploration and exploitation of oil and gas occur.

Exploration Permit

The MEMR will grant Exploration Permits (*Izin Eksplorasi*) for WIPK to auction winners, which include business entities, BUT, or consortiums of business entities and/or BUT. An Exploration Permit allows the holder to explore the ZTI, which involves activities like data collection, drilling, subsurface studies, and measures to reduce the risk of carbon leakage.

The Exploration Permit is issued through the electronically integrated business licensing system (*online single submission* or OSS) and is valid for six years, extendable once for up to four years and is non-transferable. The permit is only granted after the applicant meets specific administrative, technical, environmental, and financial requirements.

In the case of a consortium of BU and/or BUT, one member must act as the operator, holding the largest share. However, all members of the consortium share joint responsibility for carrying out the exploration activities as required by the permit. **MEMR 16/2024 does not explicitly address whether a transfer of license permits to an affiliate is allowed.**

Storage Operation Permit

The MEMR will grant a Storage Operation Permit (*Izin Operasi Penyimpanan*) to the holder of an Exploration Permit for the purpose of safely and permanently injecting and storing carbon in the ZTI. However, if the Exploration Permit holder is a BUT, it must first establish a business entity in order to obtain the Storage Operation Permit. The Storage Operation Permit is non-transferable, valid for 30 years, and can be extended for up to 20 years based on factors like operational sustainability, capacity, leakage prevention, and project performance.

The Storage Operation Permit is issued once the Exploration Permit holder receives approval for its ZTI development plans and meets all the necessary administrative, technical, environmental, and financial requirements. Additionally, permit holders are required to submit a report to the MEMR every six months.

The Storage Operation Permit holder must also provide a performance guarantee from a general bank registered with the Financial Services Authority (OJK). This guarantee should be 10% of the carbon injection well's total budget or at least USD 1,500,000, whichever is higher. The Storage Operation Permit holder must also include a statement committing itself to covering any remaining budget for the carbon injection well that is not completed.

Transportation Permit

The Transportation Permit will be issued by the MEMR for the purposes of transporting carbon to injection sites via pipelines **from the capture and/or processing facilities to the point where carbon is injected for storage**. It is granted to business entities or Storage Operation Permit holders after obtaining environmental approval and recommendations from the Ministry of Environment, as well as coordination with the Ministry of Marine Affairs and Fisheries and/or the Ministry of Transportation. The Transportation Permit is valid for up to 20 years, extendable for 10 years, and is non-transferable. Furthermore, permit holders are also required to submit incidental reports to the MEMR every six months.

Approval for Carbon Storage Services

Storage Operation Permit holders must negotiate carbon storage services with carbon producers or other parties who provide the carbon to be injected (B-to-B basis). These negotiations should be based on the principles of affordability, fairness, sustainability, and competition. Once agreement is reached, it must be submitted for approval to the MEMR, along with supporting documents. These supporting documents include the ZTI profile, carbon source details, agreement copies, and service fee breakdowns. MEMR approval will be based on storage capacity for domestic needs, compliance with laws and bilateral agreements, consumer purchasing power, and energy transition program. Once approved, the services will then be formalized in an agreement between the parties. The provision of carbon storage services requires prior approval from MEMR. The approval application must include supporting details on storage fees and the economic considerations of the carbon storage services. The service fees are subject to royalties, which are shared between central and regional governments. It is also important to note that all transported and injected carbon must comply with Indonesian or international recognized standards approved by the MEMR.

Commercialization

The commercialization of Carbon's Economic Value is facilitated through the Voluntary Carbon Market (VCM) or other carbon trading platforms, utilizing methodologies aligned with regulatory provisions. Carbon trading can take place through international market mechanisms, as governed by applicable laws and regulations, enabling participants to monetize carbon reduction efforts.

The Storage Operation Permit holder acts as a service provider, negotiating carbon storage agreements with carbon producers or other entities submitting carbon for injection. These negotiations must be conducted on commercial terms, ensuring affordability, fairness, long-term business viability, and a competitive market landscape.

Closure and Monitoring

The closure of CCS activities can be conducted in the following events: 1) The injection target zone has reached its maximum carbon storage capacity; 2) No additional carbon remains for injection; 3) The Storage Operation Permit has expired and is not extended; 4) Unsafe conditions emerge, resulting in the suspension of CCS operations and making closure the most viable solution; 5) Force majeure circumstances arise where closure becomes the optimal course of action; or 6) The Carbon Storage Permit Area is no longer economically viable.

The plan to terminate CCS operations must receive approval from the MEMR. Within 30 days of closure, the operator is required to report the shutdown to the MEMR for verification by an independent verifier appointed by the MEMR. The MEMR will formally confirm the completion of the carbon storage operation's closure if the closure aligns with the approved plan. Monitoring activities

will be carried out for a period of up to 10 years which aims to identify potential risks, such as leakage, soil and water contamination, the integrity of the injection target zone, and other related hazards.

The holder of the Storage Operation Permit is required to allocate post-operation guarantee funds into a joint account (escrow account) under the name of the Storage Operation Permit holder and the Directorate General of Oil and Gas, in accordance with the provisions of applicable laws and regulations.

Conclusion

Indonesia's commitment to climate goals is evident through its detailed regulatory framework for CCS activities, as outlined in MEMR Reg 16/2024. The recently introduced regulation underscores the government's dedication to expanding the reach and impact of CCS projects. By creating a more inclusive framework, it encourages the participation of a wider range of stakeholders in the CCS sector. This regulation also offers clarity and legal certainty to businesses, setting the stage for effective CCS operations. By establishing clear processes for permit frameworks, the government aims to foster a robust CCS industry. The regulation emphasizes environmental protection and sustainable practices, ensuring a balanced approach to economic and ecological needs.

As the US is withdrawing from the Paris Agreement, coal industries could find a strong moment and momentum to revive in the days ahead. CCS could be a solution to the problems of carbon produced by the coal industries, and grow together with the coal businesses. In this way, Indonesia and Indonesia's international coal consumers could continue to benefit from the coal industries.

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The article above was prepared by Dentons HPRP's lawyers

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