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Indonesia's Carbon Pricing

Understanding the Basic Regulatory Framework

Fifiek Mulyana, Junior Partner at PwC Legal Indonesia, describes the key concepts in carbon pricing regulations and discusses the legal considerations for investors and businesses in entering Indonesia's carbon market.

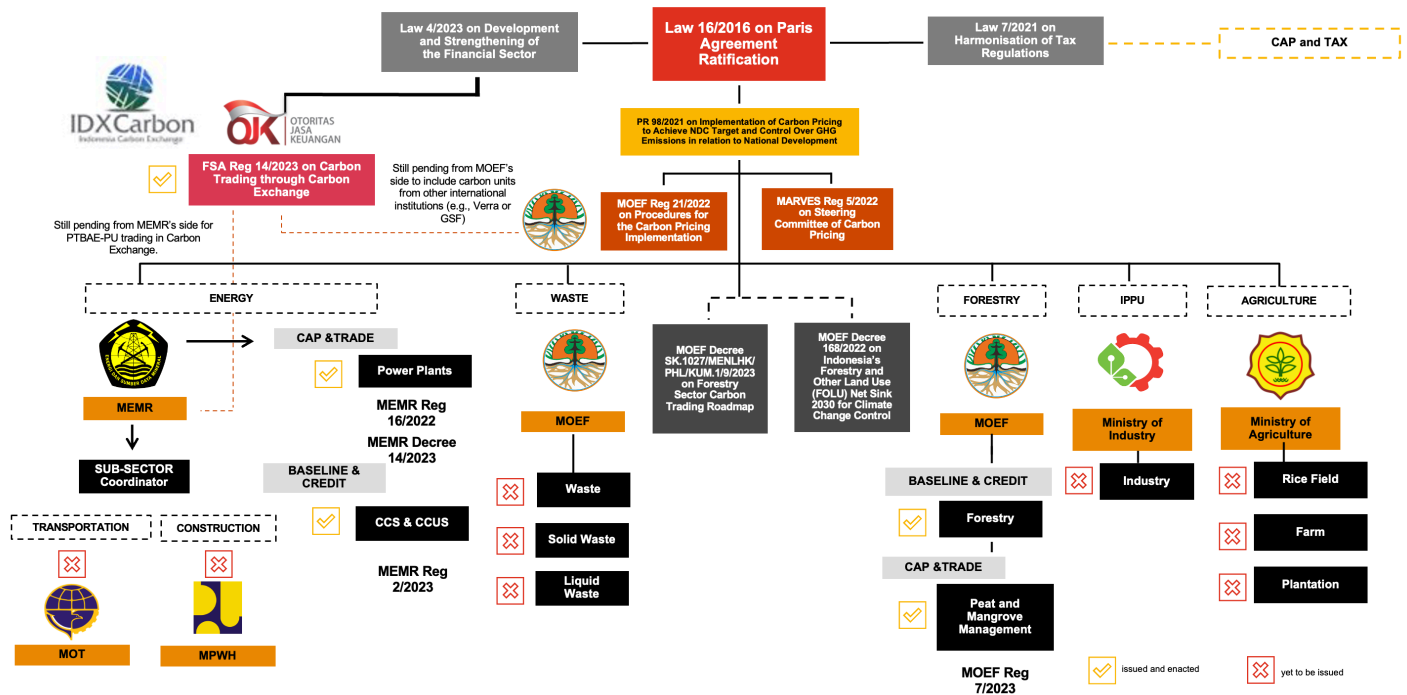
Carbon Pricing as an instrument to achieve NDC

On 26 September 2023, the Indonesian Stock Exchange launched the Indonesia Carbon Exchange (IDX Carbon), marking another milestone for Indonesia in its commitment to net zero emissions by 2060. The IDX Carbon came in towards the end of two years since President Joko Widodo issued Presidential Regulation Number 98 Year 2021 on the Carbon Pricing Mechanism to achieve the Nationally Determined Contribution (NDC) and Greenhouse Gas (GHG) Emission Control in the National Development, commonly referred to as the Presidential Regulation on Carbon Pricing. Carbon Pricing (Nilai Ekonomi Karbon) is defined as a value for each GHG unit emitted from human and economic activities.

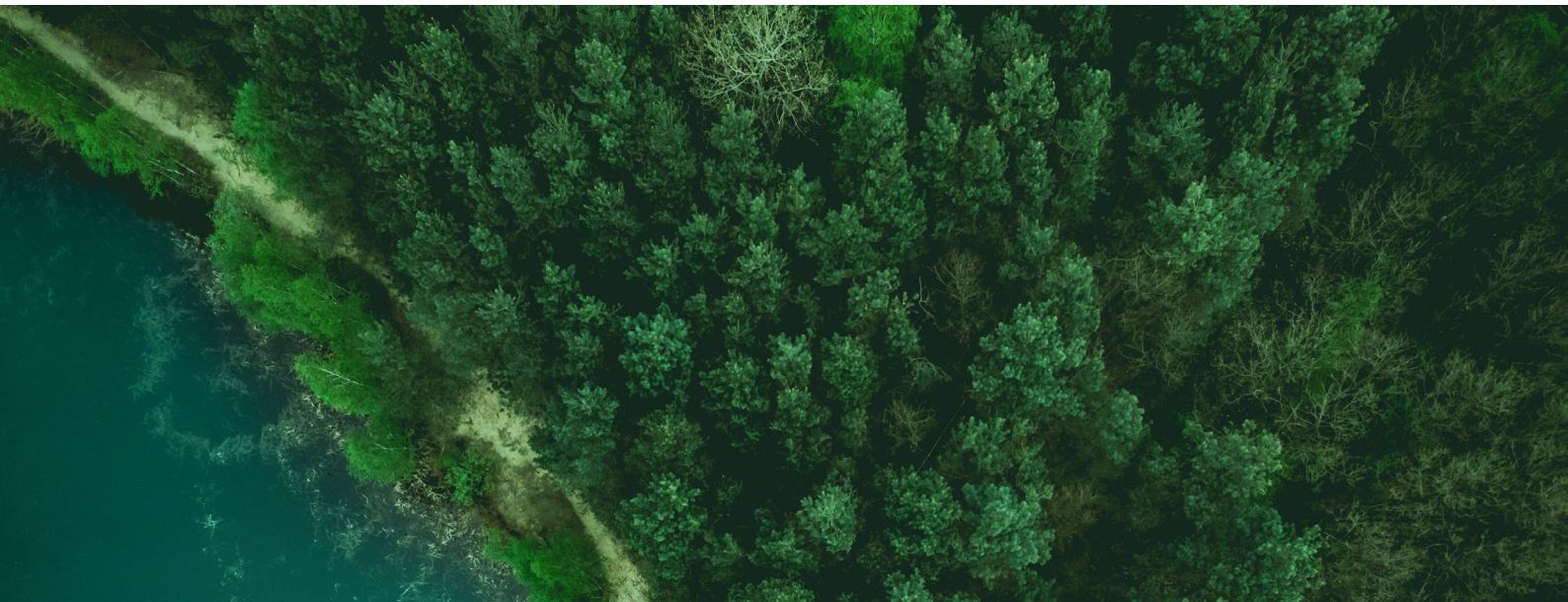
The regulation states that carbon (read: GHG) is a universal performance indicator for climate action which has both important economic value as well as international economic benefit. With this consideration, the Government of Indonesia has made carbon one of the instruments to accomplish Indonesia's mandatory obligation in GHG emission reduction under its NDC, while incentivising or commercialising the results of such action. Hence, Carbon Pricing in Indonesia and the commercialisation of carbon are regulated or part of a compliance-based market. The investors and businesses entering Indonesia's carbon market need to be cognisant of the underlying principle of Carbon Pricing in Indonesia as it will further be streamlined in the implementing regulations.

Carbon Pricing regulation is sector-based

Climate mitigation action is the underlying activity in the Carbon Pricing mechanism. This activity is regulated by sector or sub-sector, including energy, waste, Industrial Processes and Product Uses (IPPU), agriculture, forestry and/other sectors as science and technology advances. Some of the sub-sectors are transportation, waste, power plant, plantation, forestry, agriculture and industry. The mentioned sectors and sub-sectors correspond to Indonesia's sectoral ministries. However, the President Regulation delegates explicitly which ministerial sector has the coordination authority over several sectors or sub-sectors. For example, the sub-sector transportation, construction and industry will be coordinated by the Ministry of Energy and Mineral Resources (MoEMR/Energi dan Sumber Daya Mineral (ESDM)). Delegation of authorities on climate mitigation action to different sectors led to the establishment of the Carbon Pricing regulatory framework. Multiple sector ministries have the authority to regulate Carbon Pricing implementing regulations at ministerial level. To navigate this regulatory framework, businesses need to have a helicopter view of the ministerial level regulations to understand how Carbon Pricing, especially carbon trading, works in each sector and how it relates to one another. Below is a diagram of current Carbon Pricing regulatory framework (as at 4 November 2023):



As seen from the diagram, the Minister of Environment and Forestry (MoEF) heads the general procedures for carbon pricing implementation through its Minister Regulation Number 21 Year 2022 on Carbon Pricing Implementation. However, for the forestry sector specifically, MoEF enacted a specific regulation on carbon trading procedures for forestry sector in its Minister Regulation Number 7 Year 2023. In the energy sector, MoEMR issued Ministry Regulation Number 16 Year 2022 on Carbon Pricing Procedures for Power Plant Sub-sector. Forestry and energy are the two top sectors with NDC target achievement, with forestry being the major sector for the carbon net sink approach under the Indonesia Forest and Other Land Use (FOLU) Net Sink 2030.



Carbon Trading: Emission Trading and Emission Offset

The commercialisation of Carbon Pricing is currently implemented through carbon trading, result-based payment (RBP) and carbon tax. Carbon trading includes emission trading and emission offset, domestically and internationally.

Emission allowance exists in energy and forestry sector

Emission trading is the transaction mechanism between business entities with GHG emissions exceeding their designated allowance, also known as “cap and trade”. The emission allowance, as the tradeable object, is issued in the form of Technical Approval for Emission Allowance for Business Entity (Persetujuan Teknis Batas Atas Emisi Pelaku Usaha/PTBAE PU). As at 4 November 2023, two sector minister regulations mentioned above govern that PTBAE is applied respectively to: (1) power plant sub-sector in energy sector; and (2) mangrove and peat land located within or outside forest area in forestry sector. In January 2023, to kick start carbon trading, MoEMR issued PTBAE PUs for the power plant sub-sector to 99 coal power plants consisting of 42 power producers.

Emission offset is the GHG emission reduction by business entity and/other mitigation action in order to compensate the emission produced in other activity. Emission is considered as the Voluntary Carbon Market (VCM) mechanism. The commodity traded in emission offset is Emission Reduction Certificates (ERC/Sertifikat Pengurangan Emisi Gas Rumah Kaca (SPE GRK)).

Key takeaways from power plant sub-sector

The regulatory framework in Carbon Pricing is sector based, hence, MoEMR Regulation Number 16 Year 2022 prevails over the Carbon Pricing provisions in MoEF Regulation Number 21 Year 2022.

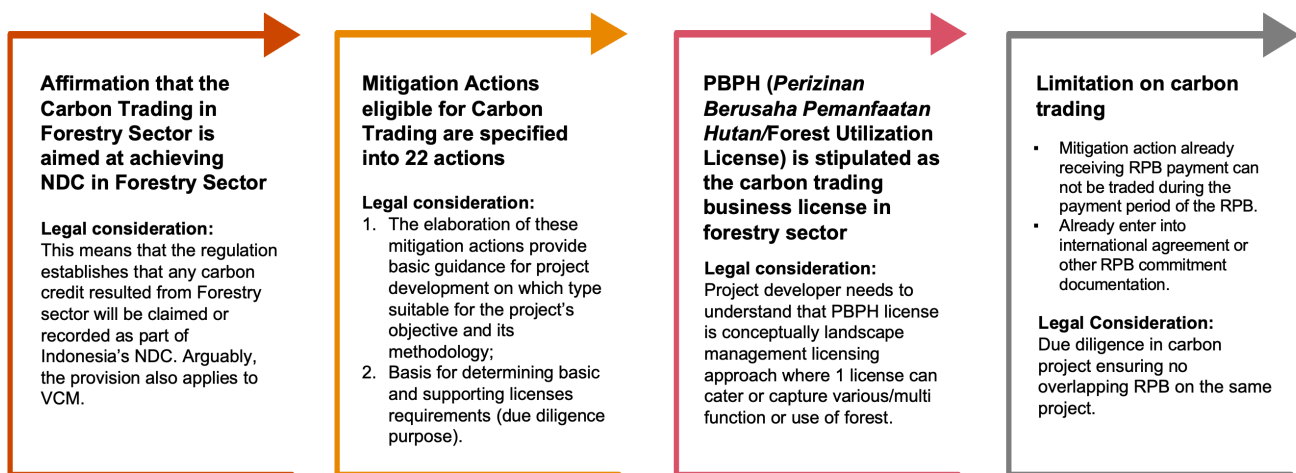
Key provisions on carbon trading	MoEMR Regulation Number 16 Year 2022	MoEF Regulation Number 21 Year 2022
PTBAE PU trading period	<ul style="list-style-type: none"> Carbon Trading period runs from 1 January to 31 December. Maximum 2 years from end of Carbon Trading period. 	<ul style="list-style-type: none"> Defined as Compliance Period: a period determined by the Sector Ministry to measure the business entity compliance in GHG emission against the designated emission allowance; 2 years from end of compliance year.
PTBAE PU surplus converted into SPE GRK	Not allowed (art 13 (5)).	PTBAE PU surplus can be converted to SPE GRK (art 13 (4)), provided that: <ul style="list-style-type: none"> The emission reduction is real, permanent, measurable, monitored and reported; or The emission reduction and the surplus PTBAE PU is the result of climate change mitigation action.
PTBAE PU Trading between Sector	<ul style="list-style-type: none"> Limited between PTBAE PU holders in the same sub sector (i.e., power plant). Not allowed within the same power plant units. 	PTBAE PU can be traded domestically and/or between PTBAE PU holders.
SPE GRK issuance	Mitigation activities eligible for SPE GRK: <ol style="list-style-type: none"> New and renewable energy power plant; Activities in transportation, construction, industry including energy efficiency activities; and Other activities in energy sector. 	Delegate to sector minister for further implementation.
SPE GRK in Sector trading	Only SPE GRK in energy sector can set off the emission in energy sector. For example: SPE GRK from geothermal project can set off the deficit allowance in power plant sector.	SPE GRK can be traded between sectors subject to inter-sector trading allowance set by the sector ministry.
Carbon Trading/ Credit Registration	APPLE GATRIK (MoEMR website-based platform for carbon pricing mechanism) and SRN PPI.	Carbon registry in sector ministry must be integrated or connected to SRN PPI.

The key takeaways from energy sector for carbon players consideration are:

- VCM exists in energy sector but can only be set off for the emission allowance within the energy sector. As such the carbon credit demand is foreseeable when PTBAE is gradually decreased up to 75% by 2030 and the PTBAE PU holders need to set off if they fail to mitigate or stay within the allowance.
- New and Renewable Energy projects are emission offset eligible for both energy sector mandatory market and VCM. However, the definition or categorisation of new and renewable energy shall follow the MoEMR stipulation, not solely based on industrial practices. For example, solar panel, wind and geothermal are considered as Renewable Energy (RE) subject to certain technical specification stipulated by the MoEMR.
- Another potential carbon opportunity which can be inferred from the MoEMR regulation is that transportation sub-sector, for example, electric buses in public transportation can apply for SPE GRK and use the credits for emission offset in energy sector and the VCM.

Key takeaways from forestry sector

Basically, MoEF Regulation Number 7 Year 2023 applies the carbon trading provisions as stipulated in MoEF Regulation Number 21 Year 2022. However, the specific provisions relating to the forestry sector provide the following key takeaways:



Credit issuance's three pronged approach: MRV, SRN PPI and SPE GRK

The so-called "commodity" traded in the carbon trading is the carbon unit, or also known as carbon credit. This carbon credit is a proof of carbon ownership, in the form of ERC (SPE GRK) or carbon allowance approval (PTBAE). The carbon credit is stated in one ton carbon dioxide equivalent (CO₂e).

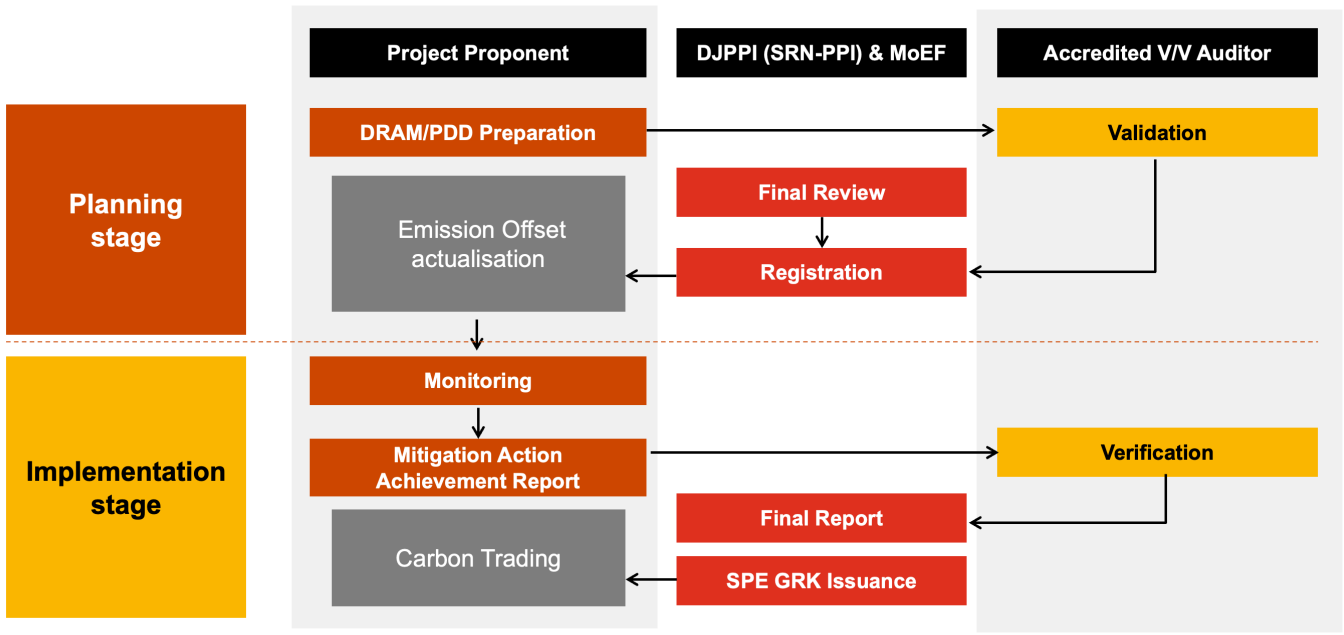
As the tradeable object in carbon trading, carbon credit issuance must demonstrate its accuracy, credibility and transparency. For this purpose, the Government Indonesia, led by MoEF, adopts three pronged approach for carbon credit issuance: (1) the Measurement, Reporting, Verification (MRV); (2) the National Registry System for Climate Change Control (Sistem Registrasi Nasional Pengendalian Perubahan Iklim/SRN PPI); and (3) the GHG emission reduction certification (SPE GRK).

MRV procedures scrutinises the mitigation action/project planning document and its implementation by applying validation and verification process. Since validation and verification determine the carbon credit issuance, they are performed by accredited validators and verifiers with specified qualifications set by MoEF. The list of these accredited entities is available in SRN PPI website.

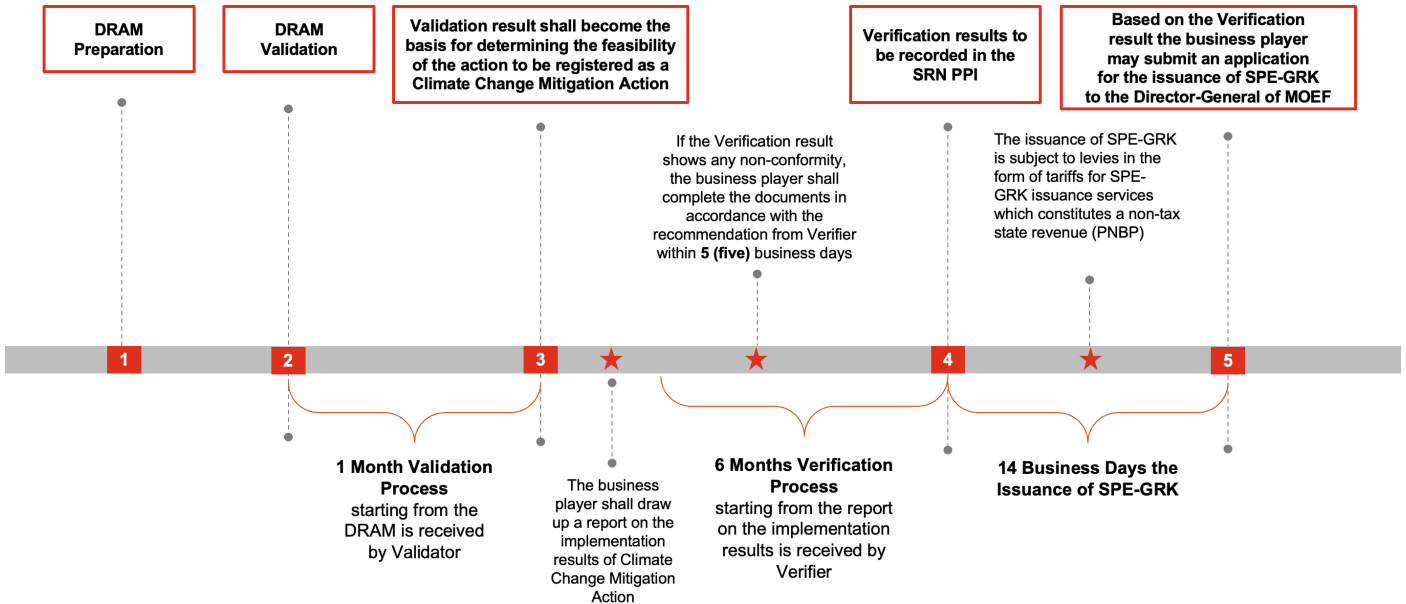
Validation and verification for emission trading are conducted on the GHG emission report for the preceding year based on the annual GHG emission monitoring plan. This report will be the basis for determining the emission allowance for the following year.

Validation for emission offset will be conducted on the Project Design Documents (PDD) (Mitigation Action Plan Document/Dokumen Rencana Aksi Mitigasi (DRAM)), while verification will be an actual technical verification process on the implementation of the mitigation plan based on the validated DRAM. The verification process must demonstrate the accepted methodology by MoEF, the accuracy and credibility of the data for DRAM monitoring purpose, no double counting/registry in other certification platform and no discrepancies between the implementation and monitoring of the mitigation.

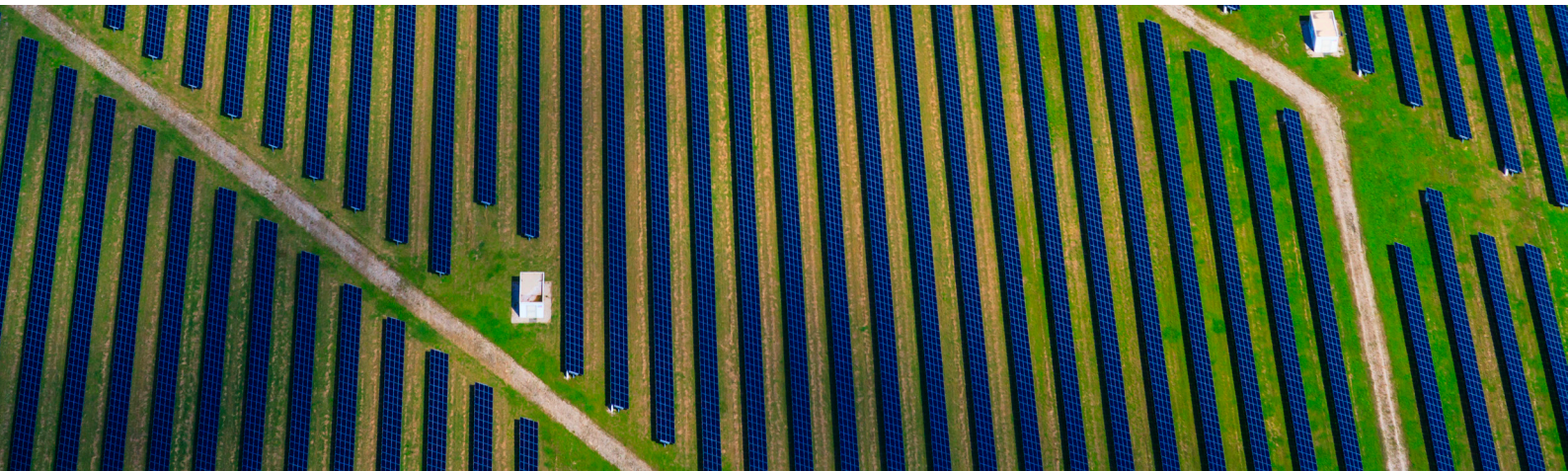
The MRV in the SPE GRK issuance process and the timeline can be summarised as follows:



Carbon project SRN-PPI registration timeline



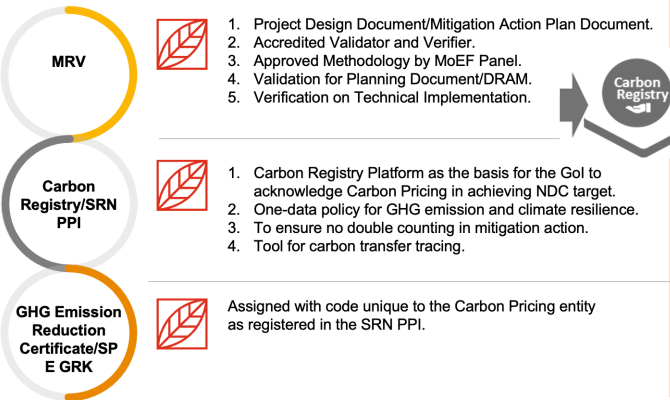
As seen from the above table, any carbon credit process is registered in the SRN PPI. SRN PPI is an Indonesian government mandatory carbon registry platform serving as One Data policy for GHG Emission. SRN PPI is open to the public and contains information on carbon credits such as the account holder, the issued credit, the mitigation activity corresponding to the issued carbon credit and the status of the credit (whether retired or available). SRN PPI is connected to the IDX Carbon. An SPE GRK from VCM issued through the SRN PPI process can be applied for green or eco-friendly labelling purpose and to fulfill the green financing requirements.



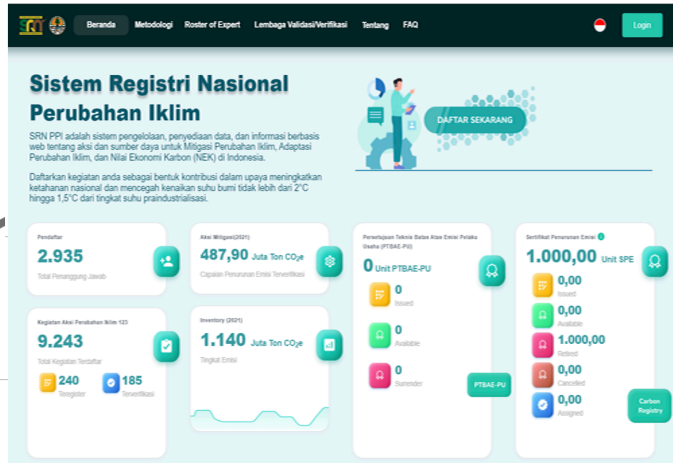
The following is a snapshot of the three pronged approach:

Accuracy, credibility and transparency of the carbon credit issuance

Activities on the data and/or information ensuring that Mitigation Action and Adaption Action are implemented in accordance with procedures and/or standard and its validity is verified.



SRI PPI official website



Mutual recognition of International Carbon Registry

Indonesia accepts Emission Reduction Certificates (ERC) issued by the International Carbon Registry, for example Verified Carbon Standard, Gold Standard or Plan Vivo, through mutual recognition with the Minister of Environment and Forestry. The basic concept of Mutual Recognition of international ERC is as follows:

Provision on Mutual Recognition	Mechanism and Action Criteria	Methodology Criteria
Article 72 Pres Reg 98/2021	Article 73 Pres Reg 98/2022	Article 68 and 68 MoEF Reg 21/2022
<p>Mutual recognition for non SPE GRK certificate or ERCs issued by non SRN PPI registry subject to the following:</p> <ol style="list-style-type: none"> 1. In accordance with principles, procedures, and provisions of international standard and/or Indonesia National Standard (SNI) as per ISO 14064 dan ISO 14065. 2. Mutual recognition of other ERCs shall be conducted by the Minister. 	<p>ERCs issued by SRN PPI Registry can be traded in domestic carbon trading, subject to the following:</p> <ol style="list-style-type: none"> a. The ERC is the result of mitigation action conducted in Indonesia; b. The result of mitigation action before 2021; c. Issued from reputable registry; d. Mechanism required third party verification; and e. Recorded in SRN PPI. 	<p>Mutual Recognition actions are:</p> <ol style="list-style-type: none"> 1. Mutual information disclosure on MRV Standards used by SRN PPI and other Registry; 2. Conformity assessment on the international standard and/or the Indonesia's national standard; 3. Assessment result statement; 4. Establish Mutual Recognition agreement document; and 5. Publication of both certificates in SRN PPI.
Accepted Mechanism	Mitigation Action	Conformity Assessment
<ol style="list-style-type: none"> a. Clean Development Mechanism. b. Other mechanism as determined based on the Mutual Recognition agreement document. 	<ol style="list-style-type: none"> a. Located in Indonesia. b. Vintage before 2021. 	<ol style="list-style-type: none"> a. CDM as accepted by Intergovernmental Panel on climate change. b. Validation and Verification conducted by internationally accredited validator and verifier.

Mutual Recognition for non-SPN PPI ERCs is possible, but the international carbon registry must first enter into agreement on the Mutual Recognition with MoEF. However, since the ERC for domestic trading is a vintage one from before 2021, this may mean that after 2021, the Mutual Recognition for ERC is for international trading only with a Minister's letter of authorisation. But it contradicts the mutual recognition concept where both registries will accept each other's ERCs. If there is a limitation to domestic trading, then even though SPE GRK is acknowledged by the International Carbon Registry, it will not be able to be traded in cross border transaction. This situation creates what seems to be a stagnant condition for carbon trading, especially for project proponents looking into potential cross-border transactions. However, since the regulation progresses from time to time, potential project proponents may consider certifying its carbon project since it is expected that, with the current demand for certification, the process may take more than the regulated nine month period.

Carbon unit as securities (efek) in IDX Carbon

Carbon trading is carried out by direct trading or via carbon exchange. IDX obtained the approval of the Financial Services Authority (Otoritas Jasa Keuangan/OJK) to organise the IDX Carbon. Carbon units, as the trading object, constitute securities (efek) as detailed in Article 26 by Law Number 4 Year 2023 on the Development and Strengthening of the Financial Sector. Though it is titled as Securities (efek) by virtue of Law, its nature does not represent the conventional securities in the capital market. Carbon unit as Securities, it is treated more like intangible assets as per the Indonesian Civil Code definition.

OJK Regulation Number 14 Year 2023 followed by IDX Regulations for its implementation set specifies the tradeable units and the market mechanisms, as follows:

Carbon market types in IDX Carbon

- Carbon unit trading on the IDX can only be conducted by and between IDX Carbon users.
- Carbon Units must be registered in SRN PPI and IDX Carbon.
- The unit trading volume is a multiple of one lot or one tonne of CO₂e.
- There are four types of markets on IDX Carbon, namely:
 - (i) auction markets;
 - (ii) regular markets;
 - (iii) negotiated markets; and
 - (iv) non-regular markets.

Various trading factors (e.g., the subject and the object of trading) will vary depending on the types of markets on which trading takes place.

The tradable carbon units in IDX Carbon

Carbon Units in the form of:

1. PTBAE-PU stipulated by the sectoral ministries; and
2. SPE-GRK (issued by SRN PPI).

International verified carbon units (VCU) unregistered in SRN PPI can be traded by and in the IDX Carbon, provided that:

1. Registered, validated, and verified by institution accredited by international registration system operator;
2. Fulfill the trading requirement by foreign Carbon Exchange; and
3. Other requirement as stipulated by OJK.

Though the OJK Regulation seems to open-up opportunity for foreign ERCs to be traded in IDX Carbon, this provision is subject to further implementing regulation to be discussed with MoEF and it needs to be read that each Carbon Credit must be registered in SRN PPI. Thus, the application of this provision on foreign ERCs will subject to the implementing regulation on the Mutual Recognition mechanism.

Carbon Pricing as part of ESG strategies

The Government of Indonesia's intention in Carbon Pricing implementation is clearly to ensure enhanced achievement of NDCs. Indonesia is committed to provide reports reflecting the integrity of its climate action to United Nations Framework Convention on Climate Change (UNFCCC) under its commitment and obligations in the Paris Agreement. This is carried out through the building blocks of the MRV, SRN PPI, double counting prohibition, corresponding adjustments and mutual recognition mechanism. However, the whole building blocks require comprehensive implementing regulations and infrastructure supports, including SRN PPI infrastructure, meeting the international standards. Legal certainty is crucial to ensure that Indonesia's Carbon Market is actually progressing and inviting green investors.

The building blocks may have unintended consequences. On the one hand, they may disincentive investment, and on the other, they may also help demonstrate the quality of Indonesia's carbon projects and its carbon credits. Thus, a comprehensive road map of all sector achievement of NDCs must be issued, so that this will allow cross-sector domestic trading to be implemented. The progressive development of carbon trading, even in the national plane, will contribute towards Indonesia's 2030 NDC target.

However, regardless of the regulatory developments allowing full building blocks and a robust SRN PPI infrastructure, businesses should not just wait and see. Carbon Trading can be part of their ESG strategy, where the credits can be used for green financing purposes or green labeling to increase its product value. In this case, carbon trading will be used as part of broader ESG strategies.

Indra Allen, Partner and Legal Leader
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Indra Allen

What is the general response from businesses, especially foreign investors on the dynamics of carbon trading regulation in Indonesia?

Allen: Carbon Pricing remains a fairly new topic in the legal segment. However, we have seen a growing interest from business players, notably from plantation and forestry sectors, searching for well-founded advice to assist them in navigating the progressive development on carbon trading regulation.

Our technical update events or workshops on Carbon Pricing always invite interests for various market segments with full-house attendance. They view that though the regulations seem to be complex or have many sectoral layers, carbon projects or carbon trading can be a potential expansion for their existing business.

What would be your insight for businesses entering the carbon market in Indonesia?

Allen: Businesses need to understand that the carbon market in Indonesia is regulated both for mandatory and voluntary markets, thus, balancing compliance and commercial aspects shall be the key consideration.

The compliance aspect begins with ensuring from the initial stage that the carbon project is eligible to produce carbon units for trading in the Indonesian market. This can be done through a thorough due diligence and assessment on the carbon project which compliments the carbon unit assessment.



Fifiek Mulyana

How can Carbon Credit be considered as part of company's ESG performance indicator?

Fifiek: Many still view that carbon credits or carbon units do not really exist, as it is just putting value to carbon emission. That is not the case. Creating carbon credit requires considerable effort, mainly the effort to conserve the environment so that GHG emission can be removed or reduced. The effort is real, the emission is measured and quantified with scientifically accepted methodology. Thus, carbon credit does exist, and its value is real. Furthermore, the effort will be monitored on periodical basis to ensure the emission target is achieved, thus directly showing company's effort in the E of the ESG.

What is the most challenging aspect in carbon market regulation in Indonesia?

Fifiek: Sector-based regulation which means that the implementation depends largely on the progressiveness of the relevant sector ministry. In addition, each of ministry may have different policies or approach to carbon trading.

But it is also an opportunity in the sense that legal aspect can focus in deep diving the regulatory requirement on that sector resulting in comprehensive assessment on the carbon project.



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