

## Implementation of Carbon Trading: Mechanisms of Execution and Legal Protection for Shareholders on the Indonesia Carbon Exchange

Maychellina<sup>1\*</sup>

<sup>1</sup>Universitas 17 Agustus 1945 Surabaya, Indonesia

\*Corresponding Author: [maychellina@gmail.com](mailto:maychellina@gmail.com)

### Article History:

Submitted:

07-08-2024

Received:

08-08-2024

Accepted:

26-08-2024

### Keywords:

carbon exchange;  
capital market; stock  
exchange;  
shareholders;  
corporate

### Abstract

This research aims to find out how the trading mechanism on the carbon exchange and legal protection for company shareholders in carbon trading transactions on the Indonesian carbon exchange. Increased global awareness of climate change has prompted many countries, including Indonesia, to adopt more effective mitigation measures. A carbon exchange is a platform for buying and selling carbon credits, which can be obtained by companies that have taken decarbonisation measures. Through carbon trading, investors can be involved in reducing carbon emissions through a scheme that has been provided, namely emission trading or emission offsets. The Indonesian government issued carbon trading regulations and policies as an effort to reduce greenhouse gas emissions globally, and the presence of the Indonesian Carbon Exchange (IDX Carbon) provides positive sentiment for a number of issuers engaged in the environmentally friendly sector. This is because the presence of a carbon exchange opens up opportunities for environmentally friendly companies to increase their revenue by selling carbon credits. The method used in this research is normative juridical with statutory approach and conceptual approach. The results of this research show that shareholders of carbon exchange organisers can only be owned by sui generis institutions, Indonesian citizens, Indonesian legal entities, and/or foreign legal entities that have obtained permission or are under the supervision of the financial services regulator in their home country. In addition, members of the board of directors of the carbon exchange organiser must be domiciled in Indonesia.

## 1. Introduction

Climate change is a global challenge that requires a serious response from various sectors, including the economic sector. One of the main approaches to address climate change is through carbon trading, which provides economic incentives for businesses to reduce greenhouse gas emissions<sup>1</sup>. In Indonesia, the Carbon Exchange is at the centre of carbon trading activities, creating a platform for industry players to participate in mitigation efforts. The ultimate goal is to reduce greenhouse gas emissions by providing economic incentives to companies that can efficiently reduce their emissions. Increased global awareness of climate change has prompted many countries, including Indonesia, to adopt more effective mitigation measures<sup>2</sup>. One of the instruments introduced in this endeavour is carbon trading, which aims

<sup>1</sup> Ayup Suran Ningsih, "Rules Regarding Mandatory Equity Securities Listing: Is It Possible for A Public Company Without Listing on The Indonesian Stock Exchange?," *Jurnal Penelitian Hukum De Jure* 22, no. 3 (September 30, 2022): 285, <https://doi.org/10.30641/dejure.2022.v22.285-294>.

<sup>2</sup> Yoga Partamayasa, "Back Door Listing: Kewenangan Badan Usaha Dan UMKM Untuk Melakukan Initial Public Offering Tanpa Melewati Proses IPO," *Media Juris* 3, no. 3 (October 1, 2020): 383, <https://doi.org/10.20473/mi.v3i3.19518>.

to reduce greenhouse gas emissions and promote sustainable development. In Indonesia, the Carbon Exchange has become a central platform for carbon trading, providing opportunities for businesses to contribute to mitigation efforts<sup>3</sup>.

The presence of Indonesia's Carbon Exchange (IDX Carbon) provides positive sentiment for a number of issuers engaged in the environmentally friendly sector. This is because the presence of a carbon exchange opens up opportunities for environmentally friendly companies to increase their revenue by selling carbon credits. For companies that invest in green business practices and implement measures to reduce carbon emissions, carbon exchanges provide an opportunity to generate additional revenue. They can sell carbon credits earned from their emissions reductions to other companies that may need additional permits to achieve environmental compliance or to offset their own emissions. The first objective of implementing carbon trading is to control Greenhouse Gas Emissions from the Forestry Sector, which through carbon trading schemes in the forestry sector, is expected to stop the rate of deforestation and degradation, create sustainable forest management, maintain forest ecosystems, and limit carbon emissions released in the atmosphere. Through carbon trading, investors can be involved in reducing carbon emissions through a scheme that has been provided, namely emission trading or emission offsets. Secondly, carbon trading can encourage the sequestration and storage of carbon emissions in the soil. In addition, it creates a sustainable forest scheme through activities carried out by the parties involved such as forest and land rehabilitation, reforestation efforts. These activities can be a way for Indonesia to absorb and store carbon emissions. Third, to achieve Indonesia's National Determined Contribution (NDC) target for the forestry sector, after joining the Paris agreement Indonesia committed to reduce carbon emissions in 2030 with a 29 and 41% scheme through its own efforts and with the help of other countries. The Ministry of Environment and Forestry projects the forestry and utilisation sector to contribute 60% of the total greenhouse gas emission reduction target without the help of other countries. Thus, by 2030 it can achieve carbon-free or zero carbon emissions.

In this research, the author made a comparison with 3 (three) previous studies. The first research by Agustinus Prajaka Wahyu Baskara with the title "Legal Framework for Carbon Exchange in Indonesia: Recent Developments and Future Challenges", this research shows that there is still a need to sharpen several aspects of the carbon exchange legal framework and still need to be complemented with derivative regulations in order to create a more conducive carbon exchange for service users<sup>4</sup>. Second, research by Muhamad Afifullah with the title "Indonesian Carbon Exchange Trading Opportunity or Threat to the Environment?", this research shows that the establishment of IDX Carbon through the Financial Services Authority Regulation Number 14 of 2023, is an important milestone in regulating carbon emission

---

<sup>3</sup> Wicipto Setiadi, "Penawaran Umum Efek Bersifat Utang Oleh Perusahaan Tertutup," *Esensi Hukum* 3, no. 1 (2021): 1-19, <https://doi.org/10.35586/esensihukum.v3i1.56>.

<sup>4</sup> Agustinus Prajaka Wahyu Baskara, "Kerangka Hukum Bursa Karbon Di Indonesia: Perkembangan Terkini Dan Tantangan Ke Depan," *Mimbar Hukum* 35 (2023): 40-79, <https://doi.org/10.22146/mh.v35i0.11396>.

trading<sup>5</sup>. Third, research by Muhamad Iqbal L with the title "Implementation of Carbon Trading on the Indonesia Stock Exchange as an Effort to Mitigate Indonesia's Climate Change", this research shows that in the implementation of carbon trading, Indonesia uses a cap and trade mechanism scheme implemented through a mandatory market, and the Indonesia Stock Exchange is a carbon exchange organising institution appointed by the Financial Services Authority<sup>6</sup>. This research will delve deeper into the legal aspects related to carbon trading in Indonesia, focusing on the role of the government, the rights and obligations of companies, and law enforcement efforts.

## 2. Methods

In this research, the author uses normative juridical research using a statutory approach by examining applicable laws and regulations and a conceptual approach that refers to legal principles carried out by examining the views of legal experts.<sup>7</sup>

## 3. Results and Discussion

### 3.1. Implementation Mechanism of Carbon Trading in Indonesia Carbon Exchange

Carbon trading is an internationally agreed measure to reduce carbon emissions under the Kyoto Protocol and Paris Agreement. The regulation on carbon trading in Indonesia is outlined in Presidential Regulation Number 98 of 2021 concerning the "The Implementation of Carbon Economic Value for Achieving Nationally Determined Contribution Targets and Controlling Greenhouse Gas Emissions in National Development (hereinafter referred to as PR No. 98/2021). According to PR No. 98/2021, carbon trading is defined as a market-based mechanism to reduce greenhouse gas emissions through the buying and selling of carbon units. Each carbon unit sold represents emission reduction for a country or company<sup>8</sup>. The carbon exchange will bring together supply and demand, therefore there needs to be a price increase limit regulation<sup>9</sup>. The lowest (minimum) price limit of Carbon Units entered into the Carbon Exchange for trading in the Regular Market is IDR 200.00 (two hundred rupiah). The price of Carbon Units traded on the Carbon Exchange Organiser Regular Market must be in accordance with the Carbon Exchange Organiser Regular Market Price Fraction or a multiple thereof. The maximum level of price change applies in the Carbon Exchange Organiser Regular Market as long as it is not lower than the minimum price or exceeds the Carbon Exchange Organiser Regular Market Auto Rejection percentage limit. The amount of the Carbon Exchange Organiser Regular Market Price Fraction is set at IDR 200.00 (two hundred rupiah).

---

<sup>5</sup> Muhamad Afifullah, Imam Haryanto, and Muthia Sakti, "Trading Bursa Carbon Indonesia Peluang Atau Ancaman Bagi Lingkungan?," *Peran Perguruan Tinggi Dalam Aktualisasi Bela Negara*, 2023, 142–52.

<sup>6</sup> Muhamad Iqbal L, Nazim, and Listyowati Sumanto, "Pelaksanaan Perdagangan Karbon Pada Bursa Efek Indonesia Sebagai Upaya Mitigasi Perubahan Iklim Indonesia," *Jurnal Kritis Studi Hukum* 9, no. 5 (2024): 59–68.

<sup>7</sup> Peter Mahmud Marzuki, *Penelitian Hukum* (Jakarta: Kencana Prenada Media Group, 2022).

<sup>8</sup> Ade Bebi Irama, S.E., M.B.A., "Perdagangan Karbon Di Indonesia: Kajian Kelembagaan Dan Keuangan Negara," *Info Artha* 4, no. 1 (2020): 83–102, <https://doi.org/10.31092/jia.v4i1.741>.

<sup>9</sup> Agustinus Prajaka Wahyu Baskara, "Kerangka Hukum Bursa Karbon Di Indonesia: Perkembangan Terkini Dan Tantangan Ke Depan."

Article 7 paragraph (2) of Financial Services Authority Regulation No. 14/2023 on Carbon Trading through Carbon Exchange (hereinafter referred to as POJK No. 14/2023) states that the implementation of carbon trading through the carbon exchange must be held using an electronic system and carried out continuously. The system includes:

1. meeting offers to buy and sell carbon units; and
2. settlement of carbon unit transactions, both fund and carbon unit settlement, between parties in the same sector and/or in different sectors in accordance with the provisions of laws and regulations.

The actors in the carbon exchange are issuers engaged in the domestic renewable energy (REB) sector. The parameters measured from issuers playing on the carbon exchange are that the issuer must have a low level of carbon emissions. Before it can be traded on the carbon exchange, prospective carbon exchange issuers must also verify their assets to get the total value of carbon units that can be sold, the results of the verification then the Ministry of Environment and Forestry will issue a carbon certification or green certificate that can be traded on the carbon exchange.

The carbon exchange is a forum for buying and selling carbon credits. Carbon credits can be obtained by companies that have taken decarbonisation measures. The decarbonisation efforts of emission reduction are recorded and then the company will get a certificate. Those who can carry out business activities as a carbon exchange are market organisers who have a business licence submitted to the financial services authority. Carbon Exchange organisers may develop Carbon Unit-based products after obtaining approval from the Financial Services Authority. The Carbon Exchange Operator is a limited liability company domiciled in the territory of Indonesia. The Carbon Exchange Operator must have a paid-up capital of at least IDR 100,000,000,000.00 (one hundred billion rupiah) and the paid-up capital is prohibited from coming from loans.

Carbon Exchange Service Users consist of Indonesian legal entities and foreign legal entities. Carbon Exchange Service Users are fully responsible for the truth of all information or facts contained in the documents submitted during the registration process as a Carbon Exchange Service User. To be able to become a Carbon Exchange Service User, the prospective Carbon Exchange Service User must submit an application letter to PBK. For prospective Carbon Exchange Service Users that are Indonesian legal entities must submit additional documents in the form of printed documents or electronic documents as follows:

1. Articles of Association of the Company that have been ratified, notified, or approved by the competent authority;
2. Taxpayer Identification Number (NPWP) and Business Identification Number (NIB).

Prospective Carbon Exchange Service Users who are foreign parties must submit additional documents in the form of printed documents or electronic documents as follows:

1. legal entity identifier;
2. proof of registration with the Regulatory Oversight Committee (ROC).

Shares of the Carbon Exchange Organiser may only be owned by sui generis institutions, Indonesian citizens, Indonesian legal entities, and/or foreign legal entities that have obtained a licence or are under the supervision of the financial services regulator in their home country. Foreign legal entities as referred to in paragraph (1) may own directly or indirectly a maximum

of 20% (twenty per cent) of all shares with voting rights, either individually or jointly. Limiting share ownership by foreign entities can prevent excessive foreign domination to protect national interests and natural resource management. In addition, by limiting foreign ownership, the government can more easily monitor market activities and prevent market manipulation practices<sup>10</sup>.

Shareholders of the carbon exchange organiser are prohibited from using the nominee arrangement scheme, namely an agreement and/or recognition by the Parties where a Party is the beneficial owner of a share recorded in the name of another Party in the nominee arrangement agreement, whether or not followed by an agreement that the Party listed as the owner acts for and on behalf of the beneficial owner<sup>11,12</sup>. Foreign legal entities as referred to in paragraph (1) may own shares of the Carbon Exchange Operator directly or indirectly at a maximum of 20% (twenty per cent) of all shares with voting rights, either individually or jointly. Parties that can become shareholders of the Carbon Exchange Operator are Parties approved by the Financial Services Authority<sup>13</sup>.

### 3.2. Legal Protections for Shareholders in the Carbon Market

Carbon trading is an internationally agreed measure to reduce carbon emissions under the Kyoto Protocol and Paris Agreement. The regulation on carbon trading in Indonesia is outlined in POJK No. 14/2023. According to POJK No. 14/2023, carbon trading is defined as a market-based mechanism to reduce greenhouse gas emissions through the buying and selling of carbon units. Each carbon unit sold represents emission reduction for a country or company<sup>14</sup>.

The carbon exchange will bring together supply and demand, therefore there needs to be a price increase limit regulation. The lowest (minimum) price limit of Carbon Units entered into the Carbon Exchange for trading in the Regular Market is IDR 200.00 (two hundred rupiah). The price of Carbon Units traded on the Carbon Exchange Operator Regular Market must be in accordance with the PBK Regular Market Price Fraction or a multiple thereof. The maximum level of price change applies in the Carbon Exchange Operator Regular Market as long as it is not lower than the minimum price or exceeds the PBK Regular Market Auto Rejection percentage limit. The amount of the Carbon Exchange Operator Regular Market Price Fraction is set at IDR 200.00 (two hundred rupiah).

Shares of the Carbon Exchange Organiser may only be owned by sui generis institutions, Indonesian citizens, Indonesian legal entities, and/or foreign legal entities that have obtained

---

<sup>10</sup> I GUSTI AGUNG WISUDAWAN, BUDI SUTRISNO, and DIMAN ADE MULADA, "Optimasi Pengawasan Oleh Otoritas Jasa Keuangan Di Bidang Pasar Modal Menurut Hukum Positif Di Indonesia," *Ganec Swara* 15, no. 1 (2021): 798, <https://doi.org/10.35327/gara.v15i1.177>.

<sup>11</sup> Yahya Harahap, *Hukum Perseroan Terbatas* (Jakarta: Sinar Grafika, 2022).

<sup>12</sup> Rudhi Prasetya, *Perseroan Terbatas Terori Dan Praktik* (Jakarta: Sinar Grafika, 2011).

<sup>13</sup> I Dewa Gede Angga Bhasudeva, I Nyoman Putu Budiarta, and Ni Made Puspasutari Ujjanti, "Perlindungan Hukum Otoritas Jasa Keuangan Terhadap Investor Pasar Modal Atas Diberlakukannya Delisting Saham Oleh Bursa Efek Indonesia," *Jurnal Preferensi Hukum* 3, no. 2 (2022): 271-75, <https://doi.org/10.55637/jph.3.2.4929.271-275>.

<sup>14</sup> Ningsih, "Rules Regarding Mandatory Equity Securities Listing: Is It Possible for A Public Company Without Listing on The Indonesian Stock Exchange?"

a licence or are under the supervision of the financial services regulator in their home country. Foreign legal entities as referred to in paragraph (1) may own directly or indirectly a maximum of 20% (twenty per cent) of all shares with voting rights, either individually or jointly. Shareholders of the carbon exchange organiser are prohibited from using the nominee arrangement scheme, namely an agreement and/or recognition by the Parties where a Party is the beneficial owner of a share recorded in the name of another Party in the nominee arrangement agreement, whether or not followed by an agreement that the Party listed as the owner acts for and on behalf of the beneficial owner.

Shareholders of the Carbon Exchange Operator must fulfil the requirements of integrity and financial viability<sup>15</sup>. In giving approval or rejection to the prospective shareholders as referred to in paragraph (1), the Financial Services Authority shall conduct a fit and proper assessment of the prospective shareholders of the Carbon Exchange Operator. In the event that there are special rights to nominate the majority of members of the Board of Directors and/or members of the Board of Commissioners as well as veto rights to a decision or approval in the general meeting of shareholders that have a significant impact on the company, such rights must be owned by shareholders in the form of sui generis institutions, Indonesian citizens, and/or Indonesian legal entities. Members of the Board of Directors of the Carbon Exchange Operator must be domiciled in Indonesia. Members of the Board of Directors and members of the Board of Commissioners of the Carbon Exchange Operator are appointed for a term of 4 (four) years and can only be reappointed for 1 (one) term<sup>1617</sup>.

The 20% cap may significantly discourage foreign investors from investing in Indonesia's carbon market. Large investors often require greater ownership to achieve economies of scale and manage investment risk. The lack of detailed explanations regarding the protection of foreign shareholders' rights in POJK No. 14/2023 creates legal uncertainty that may hinder investment. Foreign investors need strong legal certainty before deciding to invest.

#### 4. Conclusions

The launch of the National Carbon Exchange, IDX Carbon, under the auspices of the Indonesia Stock Exchange (IDX), represents a strategic initiative to facilitate the trading of carbon credits and emission permits. This system enables companies exceeding their emission limits to purchase surplus allowances from entities operating below the set thresholds, in a scheme known as cap and trade. Additionally, the carbon exchange allows for emission offsets, where emission reductions in one location can be used to compensate for emissions in another area. To ensure transparency and fairness, stringent regulations regarding ownership and transactions in the carbon exchange have been implemented. These include requirements for carbon exchange operators to possess a valid business license and restrictions on foreign

---

<sup>15</sup> Andika Prayoga and Fully Handayani Ridwan, "Kedudukan Notaris Sebagai Profesi Penunjang Pasar Modal Di Indonesia," *Kertha Semaya: Journal Ilmu Hukum* 10, no. 4 (April 13, 2022): 960, <https://doi.org/10.24843/ks.2022.v10.i04.p18>.

<sup>16</sup> Gustu Ayu Ketut Rencana Sari Dewi and Diota Prameswari Vijay Vijay, *INVESTASI DAN PASAR MODAL INDONESIA* (PT RajaGrafindo Perseda, 2018).

<sup>17</sup> Partamayasa, "Back Door Listing: Kewenangan Badan Usaha Dan UMKM Untuk Melakukan Initial Public Offering Tanpa Melewati Proses IPO."

ownership of shares to a maximum of 20%. The regulations also prohibit the use of nominee arrangements, ensuring that share ownership and corporate control remain clear and transparent. Thus, carbon trading in Indonesia is regulated to support environmental and economic sustainability, while providing adequate legal protection for all parties involved. The implementation of these policies is expected to encourage companies to contribute to the reduction of greenhouse gas emissions, in line with international commitments and domestic regulations.

## 5. Acknowledgments

The author would like to thank all those who contributed to the writing of this article. Hopefully, this research data will provide scientific benefits for the community.

## 6. Reference

- Atifullah, Muhamad, Imam Haryanto, and Muthia Sakti. "Trading Bursa Carbon Indonesia Peluang Atau Ancaman Bagi Lingkungan?" *Peran Perguruan Tinggi Dalam Aktualisasi Bela Negara*, 2023, 142-52.
- Agustinus Prajaka Wahyu Baskara. "Kerangka Hukum Bursa Karbon Di Indonesia: Perkembangan Terkini Dan Tantangan Ke Depan." *Mimbar Hukum* 35 (2023): 40-79. <https://doi.org/10.22146/mh.v35i0.11396>.
- Bhasudeva, I Dewa Gede Angga, I Nyoman Putu Budiarta, and Ni Made Puspasutari Ujianti. "Perlindungan Hukum Otoritas Jasa Keuangan Terhadap Investor Pasar Modal Atas Diberlakukannya Delisting Saham Oleh Bursa Efek Indonesia." *Jurnal Preferensi Hukum* 3, no. 2 (2022): 271-75. <https://doi.org/10.55637/jph.3.2.4929.271-275>.
- Dewi, Gustu Ayu Ketut Rencana Sari, and Diota Prameswari Vijay Vijay. *INVESTASI DAN PASAR MODAL INDONESIA*. PT RajaGrafindo Perseda, 2018.
- Harahap, Yahya. *Hukum Perseroan Terbatas*. Jakarta: Sinar Grafika, 2022.
- Irama, S.E., M.B.A., Ade Bebi. "Perdagangan Karbon Di Indonesia: Kajian Kelembagaan Dan Keuangan Negara." *Info Artha* 4, no. 1 (2020): 83-102. <https://doi.org/10.31092/jia.v4i1.741>.
- L, Muhamad Iqbal, Nazim, and Listyowati Sumanto. "Pelaksanaan Perdagangan Karbon Pada Bursa Efek Indonesia Sebagai Upaya Mitigasi Perubahan Iklim Indonesia." *Jurnal Kritis Studi Hukum* 9, no. 5 (2024): 59-68.
- Marzuki, Peter Mahmud. *Penelitian Hukum*. Jakarta: Kencana Prenada Media Group, 2022.
- Ningsih, Ayup Suran. "Rules Regarding Mandatory Equity Securities Listing: Is It Possible for A Public Company Without Listing on The Indonesian Stock Exchange?" *Jurnal Penelitian Hukum De Jure* 22, no. 3 (September 30, 2022): 285. <https://doi.org/10.30641/dejure.2022.v22.285-294>.
- Partamayasa, Yoga. "Back Door Listing: Kewenangan Badan Usaha Dan UMKM Untuk Melakukan Initial Public Offering Tanpa Melewati Proses IPO." *Media Iuris* 3, no. 3 (October 1, 2020): 383. <https://doi.org/10.20473/mi.v3i3.19518>.
- Prayoga, Andika, and Fully Handayani Ridwan. "Kedudukan Notaris Sebagai Profesi Penunjang Pasar Modal Di Indonesia." *Kertha Semaya : Journal Ilmu Hukum* 10, no. 4 (April 13, 2022): 960. <https://doi.org/10.24843/ks.2022.v10.i04.p18>.
- Rudhi Prasetya. *Perseroan Terbatas Terori Dan Praktik*. Jakarta: Sinar Grafika, 2011.
- Setiadi, Wicipto. "Penawaran Umum Efek Bersifat Utang Oleh Perusahaan Tertutup." *Esensi Hukum* 3, no. 1 (2021): 1-19. <https://doi.org/10.35586/esensihukum.v3i1.56>.
- Wisudawan, I Gusti Agung, Budi Sutrisno, and Diman Ade Mulada. "Optimasi Pengawasan Oleh Otoritas Jasa Keuangan Di Bidang Pasar Modal Menurut Hukum Positif Di Indonesia." *Ganec Swara* 15, no. 1 (2021): 798. <https://doi.org/10.35327/gara.v15i1.177>.