

In collaboration with PwC



# Better Carbon Credits on the Horizon?

## How Article 6 Can Build Trust and What it Means for Business Leaders

BRIEFING PAPER

NOVEMBER 2023



# Contents

Introduction	3
1 Challenges facing today's carbon markets	4
2 Article 6: an answer to carbon market concerns?	5
2.1 What an Article 6 carbon market will provide	5
2.2 How Article 6 will help improve carbon markets	5
3 How Article 6 will help implement the Paris Agreement	7
3.1 Why Article 6 matters to business	7
3.2 Why Article 6 matters to society's decarbonization journey	7
3.3 Key implementation issues for Article 6	8
4 Next steps for business leaders	9
4.1 What to expect as a participant in Article 6 markets	9
4.2 Progress in implementing Article 6 and how business can help	9
Contributors	10
Endnotes	11

## Disclaimer

This document is published by the World Economic Forum as a contribution to a project, insight area or interaction. The findings, interpretations and conclusions expressed herein are a result of a collaborative process facilitated and endorsed by the World Economic Forum but whose results do not necessarily represent the views of the World Economic Forum, nor the entirety of its Members, Partners or other stakeholders.

© 2023 World Economic Forum. World Economic Forum reports may be republished in accordance with the [Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International Public License](#), and in accordance with our [Terms of Use](#).

# Introduction

Reducing carbon emissions is front of mind for many businesses. The first move for any company should always be to avoid emissions. However, given existing technology and systems, few can completely remove carbon emissions from their operations or supply chains. The question is: What to do about the residual emissions?

Recourse to carbon markets is often seen as a solution to that problem, enabling companies to buy high-quality carbon credits that can be used to offset residual emissions until abatement technologies or infrastructure become available to fully decarbonize. These credits effectively fund emissions reductions, often in developing countries. By purchasing the credit, a business can offset its own emissions against the emissions reductions it has funded.

While the idea is fairly simple, the practice is very complex and there are genuine concerns about the legitimacy of carbon credits on multiple levels. Such concerns have been raised extensively over the last 18 months.

The Paris Agreement<sup>1</sup> helps address this issue through Article 6, which creates a new market – one that is only now coming into being, with

operations expected to start in 2024. The new marketplace is a compliance market, which means it is designed to help companies (and countries) meet their obligations to reduce emissions.

Article 6 markets will integrate the most recent standards for recognizing eligible carbon credits, create infrastructure for tracking of transactions, and implement governance requiring national and United Nations (UN) approval processes.

Importantly, this global carbon market should enhance the credibility and investment velocity of carbon credits by interlinking currently fragmented markets and countries in a way that enables them to undertake carbon reduction projects cooperatively. This will help business and private capital to move more rapidly and cost-effectively towards net zero.

This briefing paper provides a high-level overview and perspective on how the implementation of Article 6 is improving global carbon markets, what this means for businesses as potential participants, and steps companies can take to increase awareness and assess options to get involved.



1

# Challenges facing today's carbon markets

Global compliance markets are worth over €865 billion per year.<sup>2</sup> They are a crucial part of many companies' net-zero plans. Yet they have some significant drawbacks, outlined below.

## 1. Lack of market participation and growth

Existing carbon markets are fragmented. Different countries and regions have developed their own carbon markets, for reasons ranging from lack of political will to the complexity of creating cross-border arrangements. Fragmented markets reduce participation, because buyers cannot be confident that they will be able to buy quality carbon credits at a reasonable cost whenever they need to, while sellers cannot always be sure of finding buyers. Fragmentation also considerably restricts these markets' ability to grow and develop.

## 2. It is hard to trade credits between different carbon markets

Another effect of market fragmentation is that different markets often have different methods of defining, quantifying and valuing carbon credits. This makes cross-market trading tricky, increasing transaction costs and reducing liquidity.

## 3. Lack of certainty that credits represent genuine emissions reductions

Tests to determine whether credits deliver genuine emissions reductions (often called "additionality") can be subjective and inconsistently applied, leaving businesses that buy carbon credits vulnerable to accusations of greenwashing. Other legitimate concerns include the consultation and participation of local communities during the project development stage and the allocation of a portion of any royalties or broader benefits to support such groups.

## 4. The potential for double-counting

Without a central mechanism for registering and approving carbon reduction projects, carbon markets run the risk of multiple parties claiming a given credit. For example, if company A builds a wind farm and sells the credits for those emissions reductions to company B, there is a risk that both companies will count those emissions reductions towards achieving their reduction targets. If emissions reductions are double-counted, it not only undermines trust in the market process, it also over-states the true reduction in global emissions.

## 5. Investors' difficulty in recognizing carbon credit value

Investors like certainty, but without internationally agreed standards and structures underpinning carbon markets it can be hard for them to value carbon reduction activities and form a view on forward market pricing. The current accounting and tax treatment of carbon credits varies significantly by jurisdiction and international norms are absent. This curbs investor enthusiasm for participating in the market and limits the deployment of capital.

2

# Article 6: an answer to carbon market concerns?

Article 6 of the Paris Agreement sets out the framework for a robust and internationally supported carbon market. While it is too early to know if the implementation will be successful, the mechanisms under Article 6 have the potential to overcome many of the drawbacks of existing carbon markets.

This robust framework should not only establish greater trust, transparency and credibility in the carbon markets it supports, it may also encourage international cooperation and open up the markets to greater participation and funding. This will

provide business leaders with more options to meet their carbon reduction commitments in a cost-effective way, enabling them to use trusted credits that protect their reputations while achieving their emissions reduction goals.

To understand how Article 6 enables the international trade of carbon credits to help companies and countries meet their emissions-reduction obligations, see Figure 1.

## 2.1 What an Article 6 carbon market will provide

### **An independently administered market system:**

Article 6 provides an accounting framework which will provide clear nationally agreed standards as well as a central UN-supported mechanism to trade carbon credits. A UN supervisory body will develop the mechanism's infrastructure and take responsibility for operating it.<sup>3</sup>

**Carbon reduction project eligibility:** Article 6 creates a blueprint to determine whether a carbon reduction project is eligible and appropriate to be considered for inclusion in a carbon market trade. It increases confidence by standardizing policies for creating and authorizing credits, thereby removing uncertainty. Article 6 carbon credits will be undersigned by the UN.

**A carbon credit registry:** This creates a basis for determining whether or not a carbon reduction project is eligible for inclusion and registers the credits created by a carbon reduction project. There will be strict provisions against double-counting, called "corresponding adjustments", that ensure parties (countries) selling credits cannot double-count them as credits against their own emissions.

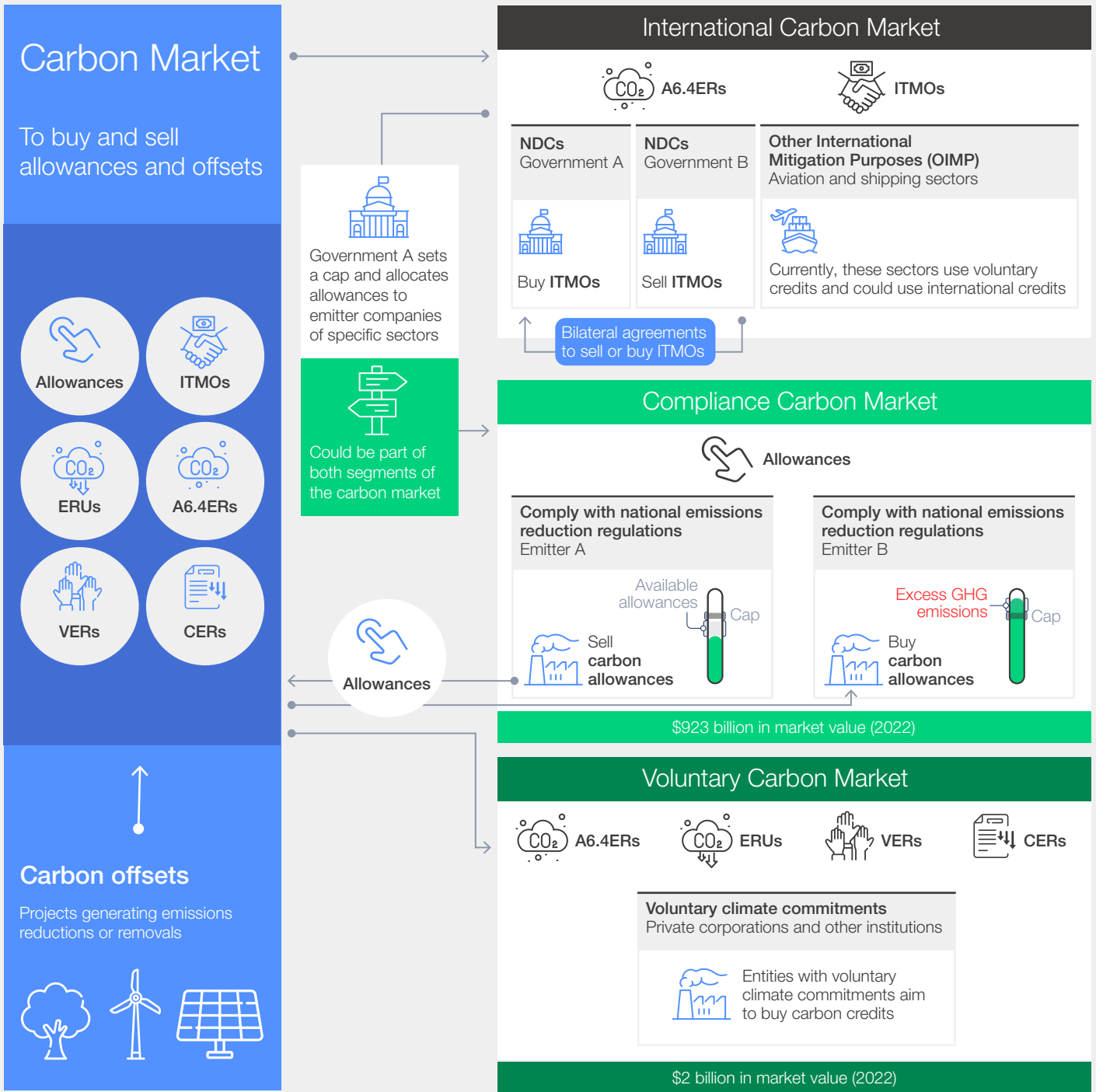
**Trading mechanism:** Article 6 provides a central mechanism for buyers and sellers to trade with each other and create legal agreements to provide security and protection for market users.

## 2.2 How Article 6 will help improve carbon markets

**Participation and growth:** The robust framework provided by Article 6 will help to overcome fragmentation and thereby build momentum and enable growth in global carbon markets.

**Increased confidence in quality:** Article 6 enhances the traceability, security and credibility of credit trading, which in turn will help to increase investor confidence in carbon credits as a commodity and defined asset class.

FIGURE 1 | Article 6 enables the international trade of carbon credits to help companies and countries meet their emissions-reduction obligations



Types of carbon units (allowances or offset credits)

- **ITMO**  
Internationally Transferred Mitigation Outcome
- **ERU**  
Emission Reduction Unit
- **A6.4ER**  
Article 6.4 Emission Reduction
- **VER**  
Voluntary Emission Reduction
- **CER**  
Certified Emission Reduction

# How Article 6 will help implement the Paris Agreement

## 3.1 Why Article 6 matters to business

There are four main benefits to business from an effective global carbon market operating under Article 6:

- **Robust emissions reductions:** If implemented effectively, the rules governing carbon markets under Article 6 provide greater confidence that claimed emissions reductions are real, so the organization can be more confident it is meeting the commitments it has made.
- **Credible emissions reductions:** It is expected that the robustness of carbon markets governed by Article 6 will increase trust in carbon credits and reduce the risk that a business is, fairly or unfairly, branded as greenwashing.
- **Expanded options for accessing credits:** Article 6 helps to create more integrated and vibrant carbon markets, expanding companies' options for obtaining carbon credits.
- **Cost saving:** Financing emissions reductions through carbon markets allows businesses to access lower-cost emissions reduction opportunities and so meet their emissions reduction commitments more cost-effectively.

## 3.2 Why Article 6 matters to society's decarbonization journey

- **Acceleration towards net zero:** Article 6 heightens the speed and scale of society's progress towards net zero, by increasing capital allocation towards carbon reduction projects and by helping to ensure those reductions in carbon are genuine.
- **Capital flows to the Global South:** The lowest-cost carbon reduction activities are often found in the Global South, driving significant capital flows that can help deliver a just transition.
- **A lower-cost transition:** By efficiently allocating capital to the most cost-effective and mature carbon reduction activities, it is possible to cut emissions more efficiently. Lower-cost countries can provide cost-efficient carbon credits relative to higher-cost countries.<sup>4</sup> It is estimated that carbon markets could cut in half some countries' costs to reach their carbon reduction goals (so called "Nationally Determined Contributions" or "NDCs"), saving up to \$250 billion worldwide by 2030.<sup>5</sup>

For the reasons above, a high-quality, centralized, internationally approved carbon market like that proposed by Article 6 would be good for companies, countries and the planet. Article 6 should enhance the certainty needed to support greater bankability, lower transaction costs and the ability to securitize carbon credits through exchanges – all contributing to an increase in available funding and an acceleration of carbon reductions.

### 3.3 Key implementation issues for Article 6

Of course, all this may not happen instantly and some of the implementation may require patience. Potential bumps in the road include the following:

- Article 6 standards are still being negotiated and this may take some time to achieve.
- Once up and running, Article 6 markets may need time to grow to sort out any teething problems in the system.
- The price of carbon credits in Article 6 markets may be higher due to the credibility boost provided by the UN undersigning these credits; this may fragment the market in the near term.

- There may initially be higher transaction costs as the market considers how to price a slightly different set of delivery, regulatory and counterparty risks.

However these issues are likely to be far outweighed by the very real advantages of a fully functioning Article 6 carbon market. This will not only deliver significant benefits to business, but also has the potential to contribute to the Paris Agreement's global sustainability goals at a lower overall cost,<sup>6</sup> provide incentives for private sector investment in emissions reduction projects worldwide and even help some underdeveloped countries leapfrog their technological development.





# 4

# Next steps for business leaders

## 4.1 What to expect as a participant in Article 6 markets

For business leaders, Article 6 opens up a whole new set of possibilities for investing in emissions reduction projects, accessing project funding and participating in trade – all within a high-quality, rules-based market. The Article 6 market is not yet up and running, but it is expected to begin operation in 2024, by which time the relevant Articles are due to be approved and supporting infrastructure should be better developed.

Buying in the Article 6 market will be similar to purchasing other carbon credits: a buyer reaches an agreement with a seller that holds credits on

the Article 6 registry for purchase. However, if the purchase involves the transfer of credits between nations, then a host nation would also need to approve the transfer and the host nation and the buying nation would need to record it. Processes will be in place to minimize the burden this international transfer places on businesses buying credits.

Market experts expect that, over time, voluntary carbon markets (VCMs) and Article 6 compliance carbon markets (CCMs) will merge. However, timelines and specifics are still uncertain.

## 4.2 Progress in implementing Article 6 and how business can help

A number of initiatives are underway to operationalize Article 6, including one led by the World Economic Forum with the support of PwC.<sup>7</sup> The Forum and PwC are seeking to bring together businesses and governments to drive the development of regional carbon markets based on Article 6.

As a business leader there are three key ways you can help to drive this progress:

1. Build your knowledge of Article 6 markets and support their development, for example through participating in national and international consultations.

2. Engage your national government to press for the implementation of institutions needed to support Article 6 transactions.
3. Understand how using carbon credits can enhance your company's net-zero journey – not just in terms of lowering cost but in creating a community to help advance global efforts to achieve carbon reduction and other environmental benefits.

# Contributors

## World Economic Forum

### **Nasim Pour**

Lead, Carbon Removals and Market Innovation, World Economic Forum

## PwC

### **Ian P. Milborrow**

Sustainability, Partner, PwC United Kingdom

### **Emma Cox**

Global Climate Leader, Partner,  
PwC United Kingdom

### **Barry Murphy**

Sustainability Leader, Global Tax and Legal Services,  
Partner, PwC United Kingdom

### **Carolina Agudelo**

Sustainability and Climate Change, Director,  
PwC Colombia

### **Nicolas Rodríguez**

Sustainability and Climate Change, Senior Associate,  
PwC Colombia

### **Cameron Stonestreet**

Sustainability and Climate Change, Director,  
PwC Canada

### **Carlos Emilio Torres**

Sustainability and Climate Change, Senior Associate,  
PwC Colombia

### **Sarah Brown**

Global Content Development, Director,  
PwC United Kingdom

### **James Morris**

Global Corporate Affairs and Advocacy, Director,  
PwC United Kingdom

### **Rachel Bridge**

Global Thought Leadership Writer, Senior Manager,  
PwC United Kingdom

### **Andrea Plasschaert**

Global Corporate Affairs and Communications,  
Director, PwC Switzerland

### **Rachael Azimi**

Global Sustainability, Tax, Legal and People,  
Director, PwC United Kingdom

## Production

### **Jonathan Walter**

Editor, World Economic Forum

### **Michela Liberale Dorbolò**

Graphic Designer, World Economic Forum

# Endnotes

1. The historic agreement signed in Paris in 2015 that committed 195 countries to hold “the increase in the global average temperature to well below 2°C above pre-industrial levels” and pursue efforts “to limit the temperature increase to 1.5°C above pre-industrial levels.” Source: United Nations, Climate Change, The Paris Agreement, <https://unfccc.int/process-and-meetings/the-paris-agreement>.
2. Zelljadt, E., Global carbon market value hits new record, Refinitiv, 16 February 2023, <https://www.refinitiv.com/perspectives/market-insights/global-carbon-market-value-hits-new-record/>.
3. United Nations, Climate Change, Article 6.4 Supervisory Body, <https://unfccc.int/process-and-meetings/bodies/constituted-bodies/article-64-supervisory-body>.
4. Source: International Emissions Trading Association.
5. The World Bank, What You Need to Know About Article 6 of the Paris Agreement, 17 May 2022, <https://www.worldbank.org/en/news/feature/2022/05/17/what-you-need-to-know-about-article-6-of-the-paris-agreement>.
6. World Resources Institute, What You Need to Know About Article 6 of the Paris Agreement, 2 December 2019, <https://www.wri.org/insights/what-you-need-know-about-article-6-paris-agreement>.
7. World Economic Forum, Article 6 of the Paris agreement: How it can accelerate the transition to net zero, 2 May 2023, <https://www.weforum.org/agenda/2023/05/article-6-of-the-paris-agreement-how-it-can-accelerate-the-transition-to-net-zero/>.



---

COMMITTED TO  
IMPROVING THE STATE  
OF THE WORLD

---

The World Economic Forum, committed to improving the state of the world, is the International Organization for Public-Private Cooperation.

The Forum engages the foremost political, business and other leaders of society to shape global, regional and industry agendas.

---

**World Economic Forum**  
91–93 route de la Capite  
CH-1223 Cologny/Geneva  
Switzerland

Tel.: +41 (0) 22 869 1212  
Fax: +41 (0) 22 786 2744  
contact@weforum.org  
www.weforum.org