UN environment programme | finance initiative

PRI Principles for Responsible Investment

A warm welcome to the following Net-Zero Asset Owner Alliance webinar:

Untangling carbon markets: How carbon allowances differ from offsets

We will start shortly!

10/05/22

WWF

GLOBAL OPTIMISM

Agenda

Welcome & opening
Elke Pfeifer, Senior Project Manager – NZAOA

1. **Understanding the difference between carbon allowances and credits/offsets**
   Mark Lewis, Head of Climate Research – Andurand Capital LLP

2. **EU Carbon Allowances (EUAs)**
   Mark Lewis, Head of Climate Research – Andurand Capital LLP

3. **The impact mechanics of EUA investing**
   Jan Ahrens, Chief Product Officer – SparkChange

Section 1 – Understanding the difference between carbon allowances and credits/offsets
&
Section 2 – EU Carbon Allowances (EUAs)

Mark Lewis, Head of Climate Research – Andurand Capital LLP

Carbon Credits – The Basics

9 May 2022

ANDURANDCAPITAL

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Carbon credits|The basics

What is the difference between compliance markets and the voluntary market?

Compliance markets are regulated cap-and-trade schemes established in national, supra-national, or state jurisdictions, where a cap on emissions is set that declines over time in order to meet a pre-defined environmental target.* The point of a compliance market is to regulate for quantity, with the market then left to determine the price at which the required emissions reductions will be achieved. The public authority that regulates the market issues a given number of compliance allowances every year to the entities covered by the scheme either via auctions or free allocation, and each allowance entitles the holder to emit a given amount of carbon-dioxide or carbon-dioxide equivalent (typically one metric tonne).

The voluntary market, by contrast, is not regulated by any public authority, and consists rather of emissions-reduction projects that generate carbon credits or offsets for the emissions reductions they achieve. Demand for these credits comes from corporates, financials, or governments that are not under any regulatory obligation to reduce their emissions but are looking to reduce their carbon footprint on a voluntary basis for reputational or ethical reasons.

**In this respect cap-and-trade schemes are fundamentally different from carbon taxes, as with a carbon tax it is the price that is pre-determined and the market then determines what the level of emissions will be. In other words, cap-and-trade schemes are an environmental- or climate-policy tool, whereas carbon taxes are primarily a fiscal-policy tool.*

The two types of carbon credits | 1. Compliance Allowances

Compliance Allowances

- These are credits created for compliance purposes in regulated cap-and-trade schemes such as the European Union's Emissions Trading System (EU-ETS), the United Kingdom ETS (UK-ETS), or the Californian ETS (CA-ETS). Regulators pre-define the emission reductions to be achieved by setting an absolute cap on the level of greenhouse gas emissions for selected industries, with the carbon price resulting from supply and demand in the market space.
- As such, carbon credits used in cap-and-trade schemes are effectively "emissions allowances" in that each credit gives the right to emit one tonne of CO2. The point about cap-and-trade schemes is that the cap declines over time such that (other things being equal) the right to emit CO2 should become more valuable as the credits that make up the cap become increasingly scarce over time.
- Of particular interest are compliance markets in jurisdictions that have a legally binding target to achieve net-zero emissions by 2050, as the emission trading systems in these jurisdictions will ultimately have to be aligned with the net-zero target. When this happens, the compliance allowances traded in these markets are intrinsically aligned with net zero themselves.
- This is what is happening in the EU right now, with the 2030 cap for the EU-ETS being aligned with the 2050 NZ target.
- The UK is now starting the process of aligning the 2030 cap of the UK-ETS with its 2050 NZ target.

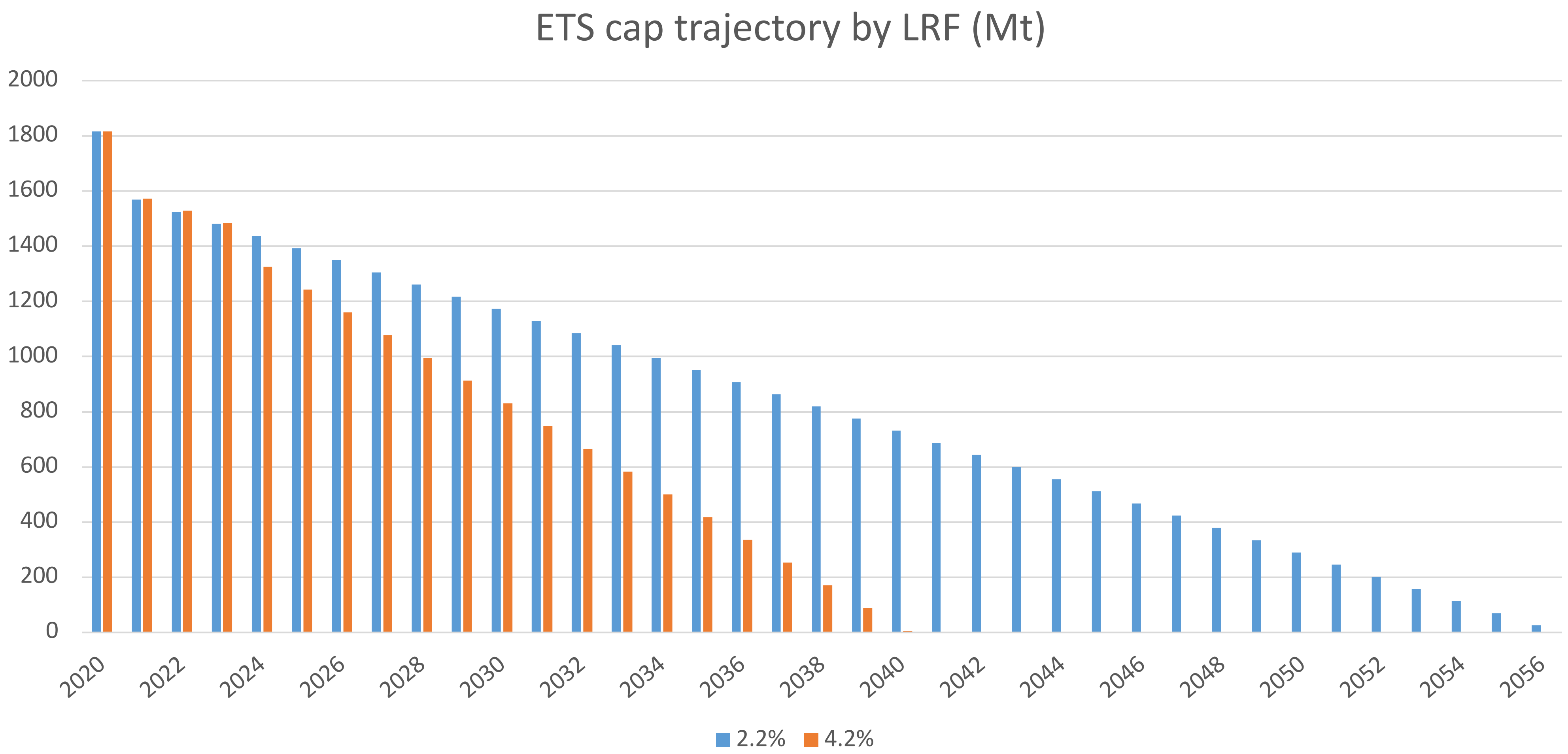
The two types of carbon credits|2. Voluntary credits/offsets

Voluntary credits or 'offsets'

- These are credits generated by activities in sectors that are not covered by an absolute cap set by regulators. There are various standards that certify the validity of the credits and their underlying activity.
- Some of the credits have a quasi-compliance status as they can be imported into cap-and-trade schemes, others are used in the so-called 'voluntary market' that has emerged out of the initiative of businesses and civil-society organisations that want to take climate action (or strive to satisfy a consumer demand for a carbon neutral product or service) but do not yet face the legal requirement to do so.
- The agreement on global carbon trading reached at COP-26 in Glasgow last November introduces an important structural change to the voluntary market that in future will see certain non-compliance credits assume a quasi-compliance status under the Paris Agreement's Article-6 rule on so-called corresponding adjustments.

EU-ETS | Commission proposal implies EU-ETS cap hits zero by 2040

The European Commission has proposed a higher Linear Reduction Factor (LRF) of 4.2% (compared with the current 2.2%) combined with a rebase of the cap in 2024 in order to reach the cap set by the legally binding 55% reduction target.



Source – Andurand Capital Management LLP

Section 3 – The impact mechanics of EUA investing

Jan Ahrens, Chief Product Officer – SparkChange

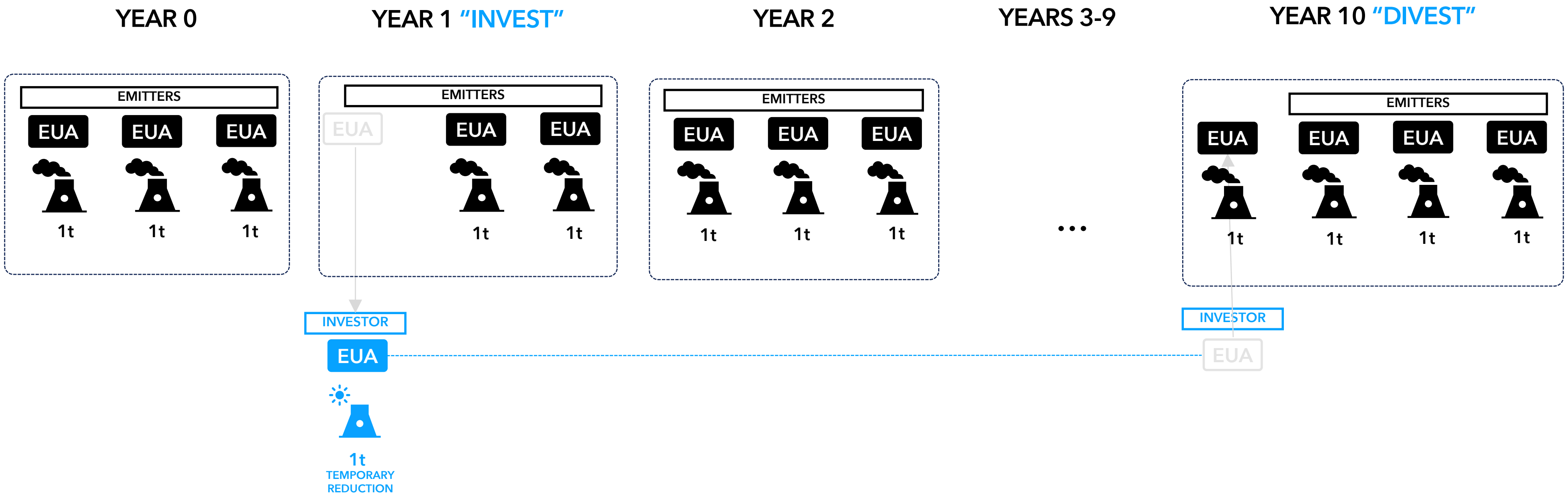
spark change
The new standard in carbon investing

Creating impact with EU Carbon Allowances

10th May 2022

Online Webinar hosted by Net Zero Asset Owner Alliance

Impact of *investing* in carbon allowances



Investing in Carbon Allowances

Delays emissions
Slows down global warming

Increases costs to pollute
More emission reductions
More R&D to reduce costs

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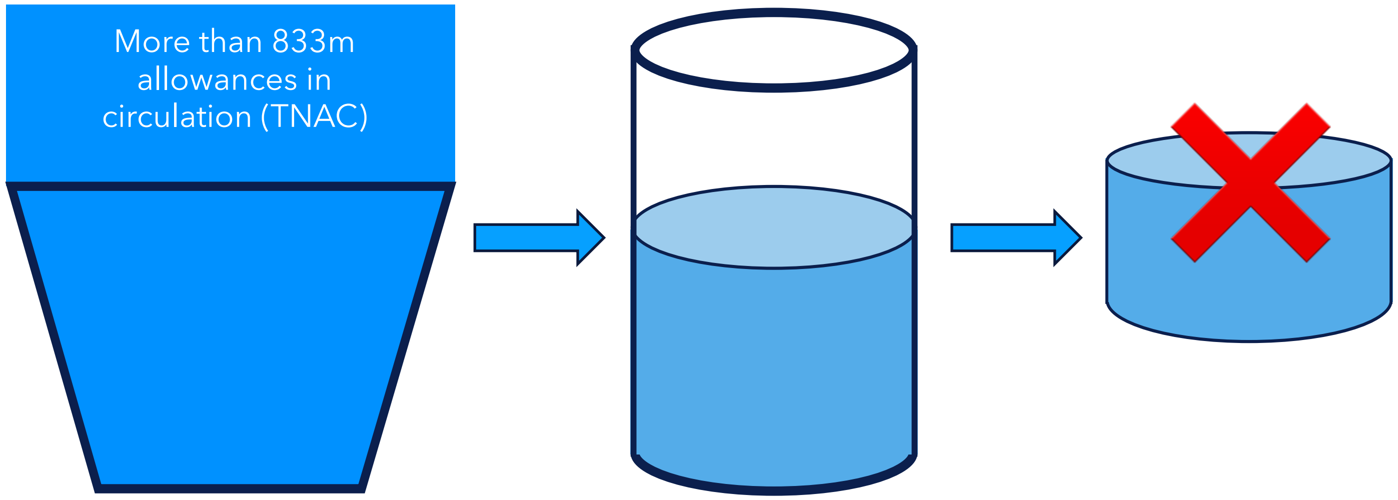
The new standard in carbon investing

The Market Stability Reserve: Adjusting supply based on emissions

European Emissions Trading Scheme (**ETS**)

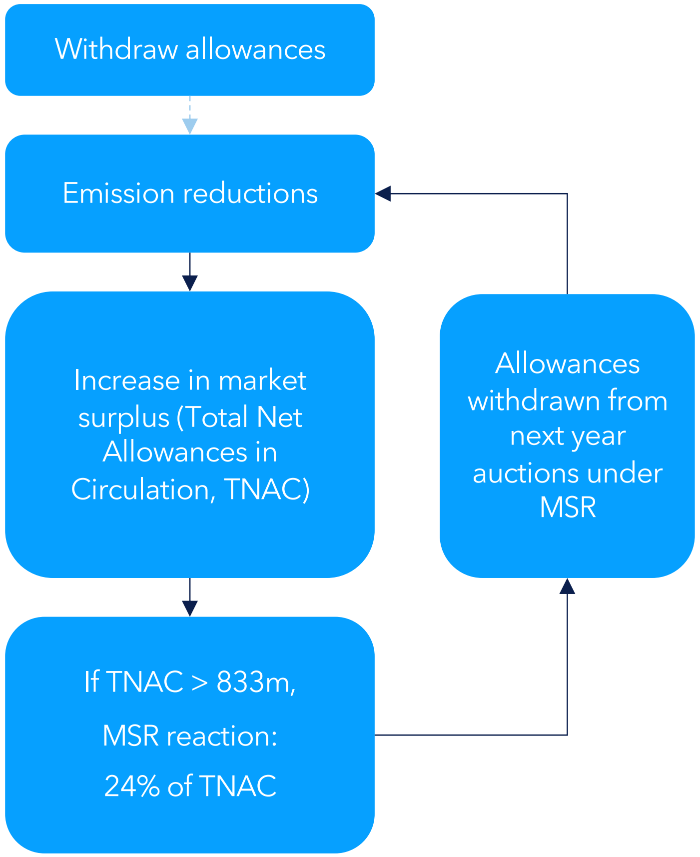
Market Stability Reserve (**MSR**)

Permanent Cancellation of Allowances



$$TNAC\ (Y) = \sum_{y=2008}^{Y} (Allocation\&Offset\ (y) - Emissions\ (y))$$

Creates positive feedback loop



[1] The MSR removes 24% of the surplus annually, as of 2024 this ratio drops to 12%. Allowances are cancelled as of 2023 if the MSR holds more EUAs than last year's auction volume, so that there could be times where the allowance is not directly cancelled but withheld from the market only

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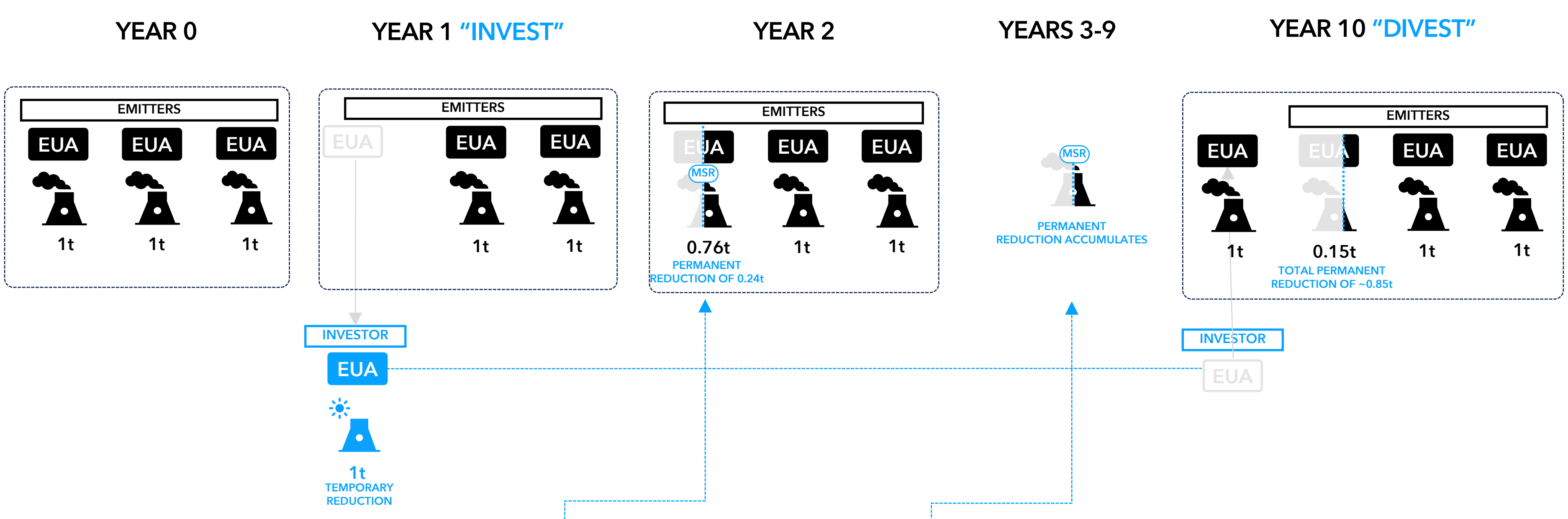
The new standard in carbon investing

Impact of *investing* in carbon allowances



Investing in Carbon Allowances

Delays emissions
Slows down global warming

Increases costs to pollute
More emission reductions
More R&D to reduce costs

Market balance change
3 EUAs - $3tCO_2$ = 0
TNAC = 0

Market balance change
3 EUAs - $2tCO_2$ = +1
TNAC = 1

Market balance change
2.76 EUAs - $2.76tCO_2$ = 0
TNAC = 1

Market balance change
2.15 EUAs - $3.15tCO_2$ = -1
TNAC = 0

Cancels EUAs
Reducing emissions permanently

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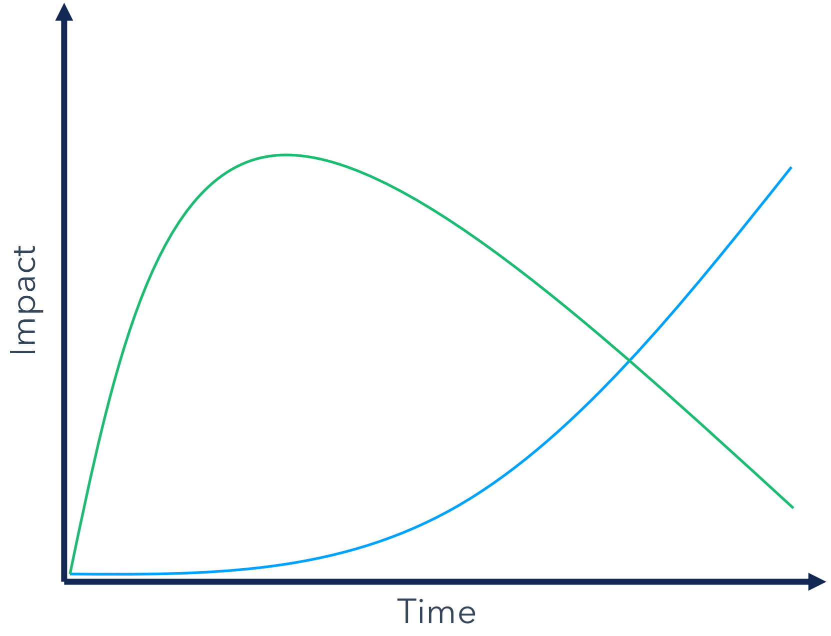
Transition tool to immediately create impact while structurally decarbonising



Structural, real decarbonisation should be the ultimate target – but it does not happen overnight

EUA investing provides for an easily accessible, immediate and environmentally sound option, which has highest impact in the short time

EUA investment as an investment overlay creates immediate impact, which can be divested once structural decarbonisation kicks in

Further reading:

Academic sources and quantification methodology: https://sparkchange.io/quantifying-the-environmental-impact-of-investing-in-carbon-allowances/

Accelerating emission reductions in PAB aligned portfolios: https://www.solactive.com/a-stitch-in-time-saves-nine-eu-emission-allowances-as-a-transitory-tool-for-net-zero-equity-portfolios/

Summary: Comparing offsets and allowances

	Offsets	EU Allowances (EUAs)
Impact	Avoid 1 tonne CO_2 increase if retired	Prevent CO_2 emissions: Accumulate while holding PLUS 1 tonne CO_2 if cancelled (and MSR is not operating)
Issuer	Various private, unregulated entities	European Commission
Regulation	Unregulated	MiFID, EU ETS Directives
Market size[1]	$983m	$721,000m
Impact	Avoid 1 tonne CO_2 increase if retired	Prevent CO_2 emissions while holding
Temperature alignment	No alignment	Exists to deliver EU emission reductions committed to under the Paris Agreement

1) Offsets: Trove research „Voluntary Carbon Market 2021 in review", EU ETS: Refinitiv „Review of the carbon markets in 2021"

Thank you!

Please get in touch if you have any questions

Jan Ahrens

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Thank you

Net-Zero Asset Owner Alliance

Annex

Webinar on Carbon Allowances: Speakers

Mark Lewis

Head of Climate Research
Andurand Capital LLP

- Mark Lewis is Head of Climate Research at Andurand Capital LLP since June 2021. Prior to his current role Mark was Chief Sustainability Strategist at BNP Paribas Asset Management (2019-21), and before that a sell-side analyst for 20 years covering the energy space as both an equity and a commodities analyst: as Managing Director and Head of European Utilities Research at Barclays (2015-18), Chief Energy Economist at Kepler Cheuvreux (2014-15), and at Deutsche Bank as MD and Global Head of Carbon and Energy Research (2005-13) and Director, European Utilities equity research, 1999-2004. He has also worked for the leading energy think tank Carbon Tracker (MD and Head of Research, 2018) and for the German utility E.ON (Deputy Head of Investor Relations, 2004-05). Prior to his career as a sell-side analyst Mark worked as a sovereign credit analyst at Standard & Poor's (1997-99), and as an academic at the University f London (1994-97).
- Mark has been a member of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) since May 2016, and a Senior Associate at the Cambridge Institute for Sustainability Leadership (CISL) since 2020. His research on carbon and energy markets has won numerous awards and he often writes opinion pieces for the Financial Times on energy and climate topics.
- Mark is a UK and French Citizen and holds a BA (First-Class Hons) in Modern Languages and Economics from Sheffield University, an MPhil from Cambridge University, and an MA from London University.

Jan Ahrens

Chief Product Officer
SparkChange

- Jan Ahrens is a seasoned climate markets professional with extensive experience in global carbon markets. He worked at utilities, trading houses and analytics providers covering both mandatory and voluntary carbon markets. For most of his career Jan has worked to develop carbon analytics, supporting major emitters, traders and governments to understand carbon markets and predict future price dynamics.
- In his current role, Jan engages with associations and universities to research how carbon markets interact with investment solutions, creates unique datasets, and advises on carbon related investment strategies. He is a Special Advisor to the Monash University, and a member of the Real Carbon Index board.
- Recent talking points:
  - How do carbon markets work?
  - The key drivers of current carbon pricing in the EU; US and China
  - How the EU Carbon Border Tax will impact global trade
  - How the recently agreed Article 6 framework of the Paris Agreement will revolutionise the
  - global offset market
  - How Investors should think about investing in carbon as an emerging asset class