

VOLUNTARY CARBON MARKET

QUARTERLY UPDATE

Q1 2021

20/4/2021

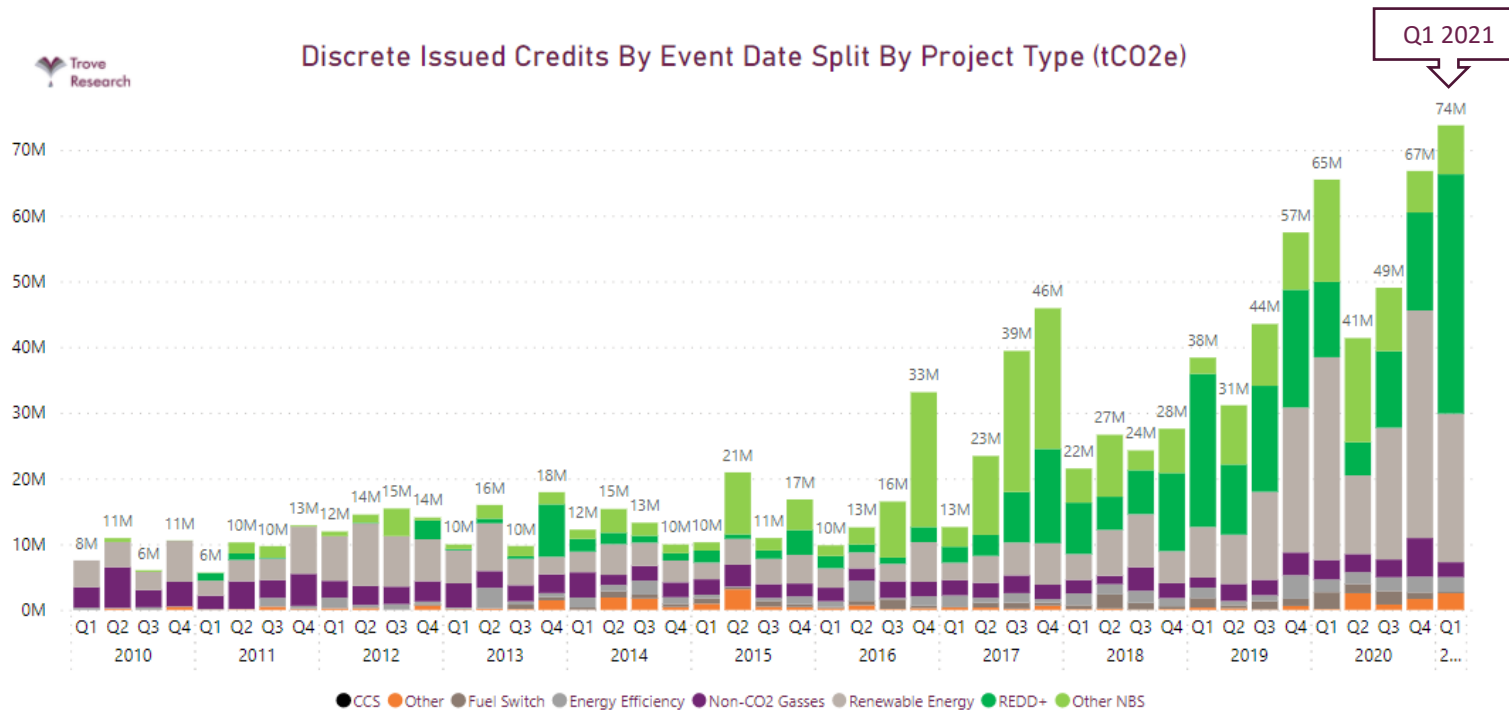
This short report presents Trove Research's quarterly update of the supply of credits to the voluntary carbon market. Full details of the data can be found at : www.trove-intelligence.com

The report comprises four sections:

1. Carbon credit issuances
 - 1a. By project type
 - 1b. By region
2. Carbon credit retirements
3. Carbon credit cancellations
4. Carbon credit surplus

1a. Carbon credit issuances by project type

Carbon credit issuances reach record volumes in Q1 2021 at 74Mt



- REDD+ dominated the issuance and retirement landscape in Q1 2021, doubling from the previous quarter and reaching the highest ever issued volume at 36Mt. The previous record for REDD+ issuance was in Q1 2019 at 23 Mt.
- 13.8m of all issued REDD+ credits in Q1 2021 originated from one project in Cambodia (Keo Seima Wildlife Sanctuary) registered the Verra registry. The credits issued in Q1 2021 related to the cumulative emission reductions from 2013 – 2019. The emission reductions amounted to 38% of all REDD+ credits issued in Q1 2021, and 55% of the increase in issued REDD+ credits quarter-on-quarter.
- Credits from Renewable Energy projects were slightly down (-35%) on Q4 2020 at 23MtCO₂ and those from non-CO₂ gases considerably lower (-61%) at 2Mt.

Source: www.trove-intelligence.com

Note: Mt refers to MtCO₂e

1b. Carbon credit issuances by region

Asia Pacific region issued more than 50% of credits in Q1

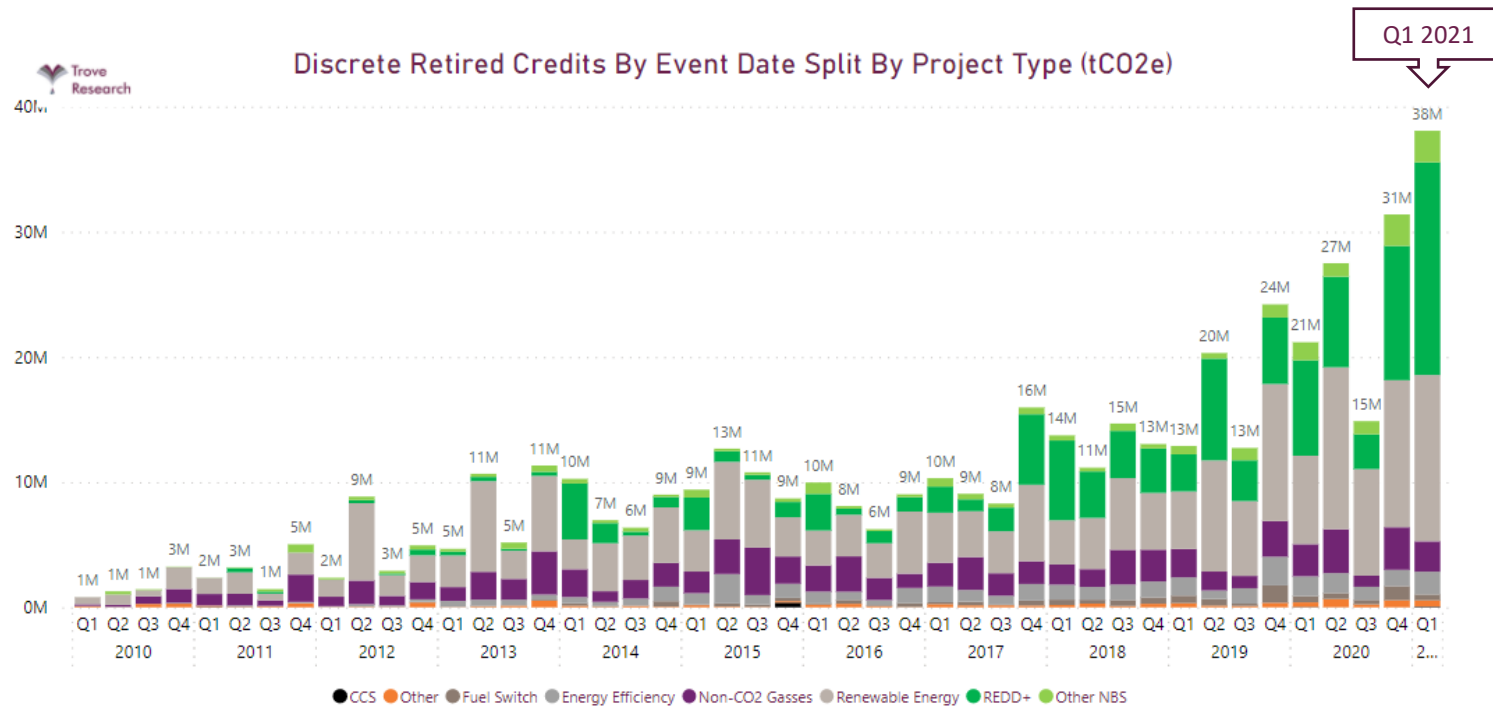


- With the large credit issuance from the Keo Seima Wildlife Sanctuary in Cambodia, the Asia Pacific region was the largest issuer of credits in Q1 2021. The region produced nearly 60% of total issuances in the quarter.
- India also produced a significant volume of credits in Q1, totalling 11Mt, with 87% of these being Renewable Energy credits.
- Central and South America issued a total of 13Mt, with 10Mt coming from REDD+ and a further 1.1Mt from other NBS.
- In North America all credits came from Other NBS and Non-CO2 Gases (5.4Mt). Only forestry and methane projects are eligible in the California cap and trade scheme.
- Africa continues to lag behind other regions for credits issuance, creating only 5Mt of credits in the quarter – a similar average rate to previous quarters.

Source: www.trove-intelligence.com

2. Carbon credit retirements by project type

Carbon credit retirements reached record volumes in Q1 2021 at 38Mt



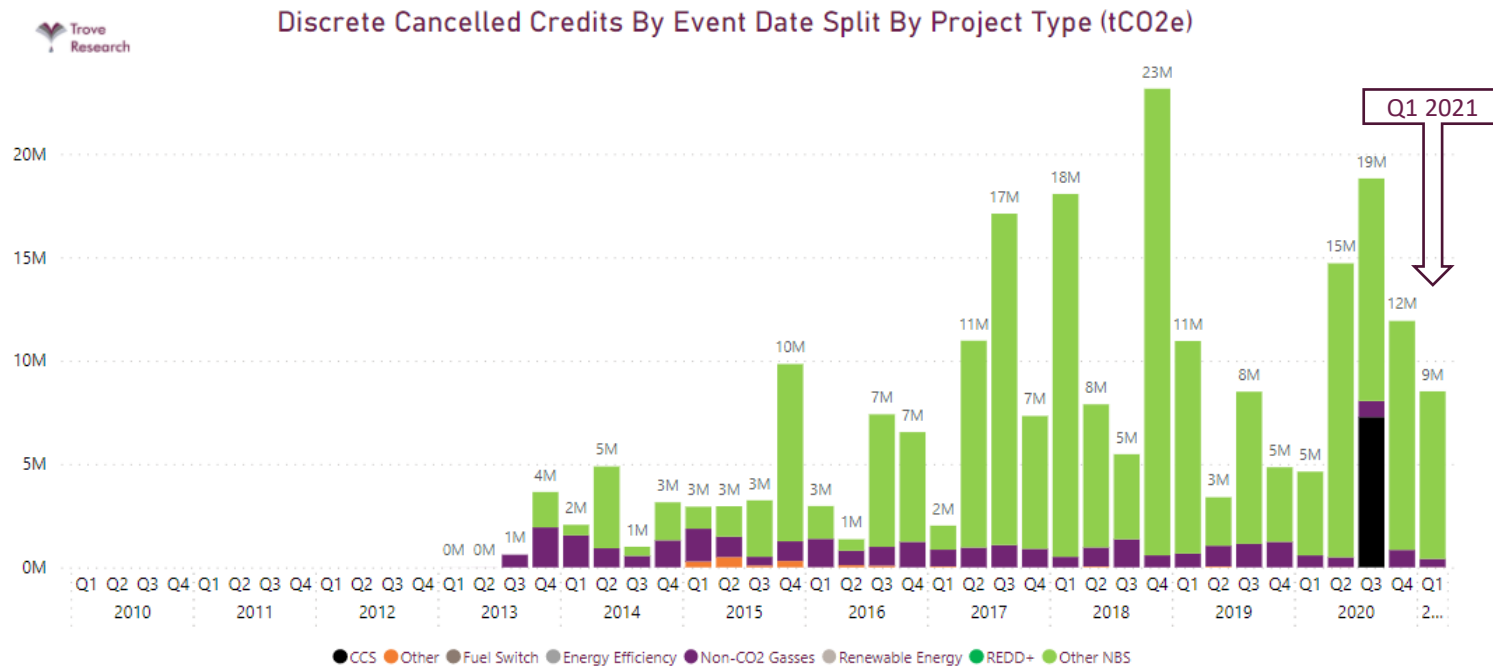
- Q1 2021 saw a record of credits retired at 38Mt, 7Mt more than the previous quarter at 31Mt.
- 45% of credits retired in Q1 were for REDD+ credits, followed by renewable energy at 35%. The largest use of retired REDD+ credits were from the Keo Seima Wildlife Sanctuary in Cambodia (6Mt) and Rimba Raya Biodiversity Reserve Project in Indonesia (2.5Mt)
- The increase in Q1 retirements continues the rolling annual average growth rate in the voluntary carbon market of around 15% p.a.

Source: www.trove-intelligence.com

Note: Mt refers to MtCO₂e

3. Carbon credit cancellations by project type

Carbon credit cancellations declined in Q1 2021 to 9Mt



- Carbon credits used in the California cap and trade scheme slowed from 12Mt in Q4 2020 to 9Mt in Q1 2021.
- This slowdown followed a large use of credits in Q3 2020 of 19Mt, due to an unusual 7Mt coming from CCS projects in Q3 2020.
- Unlike the voluntary carbon market, the California scheme restricts the use of offsets to credits from six project types:
 - Livestock
 - Mine Methane Capture
 - Ozone Depleting Substances
 - Rice Cultivation
 - U.S. Forests
 - Urban Forests
- The vast majority of credits come from forest projects.

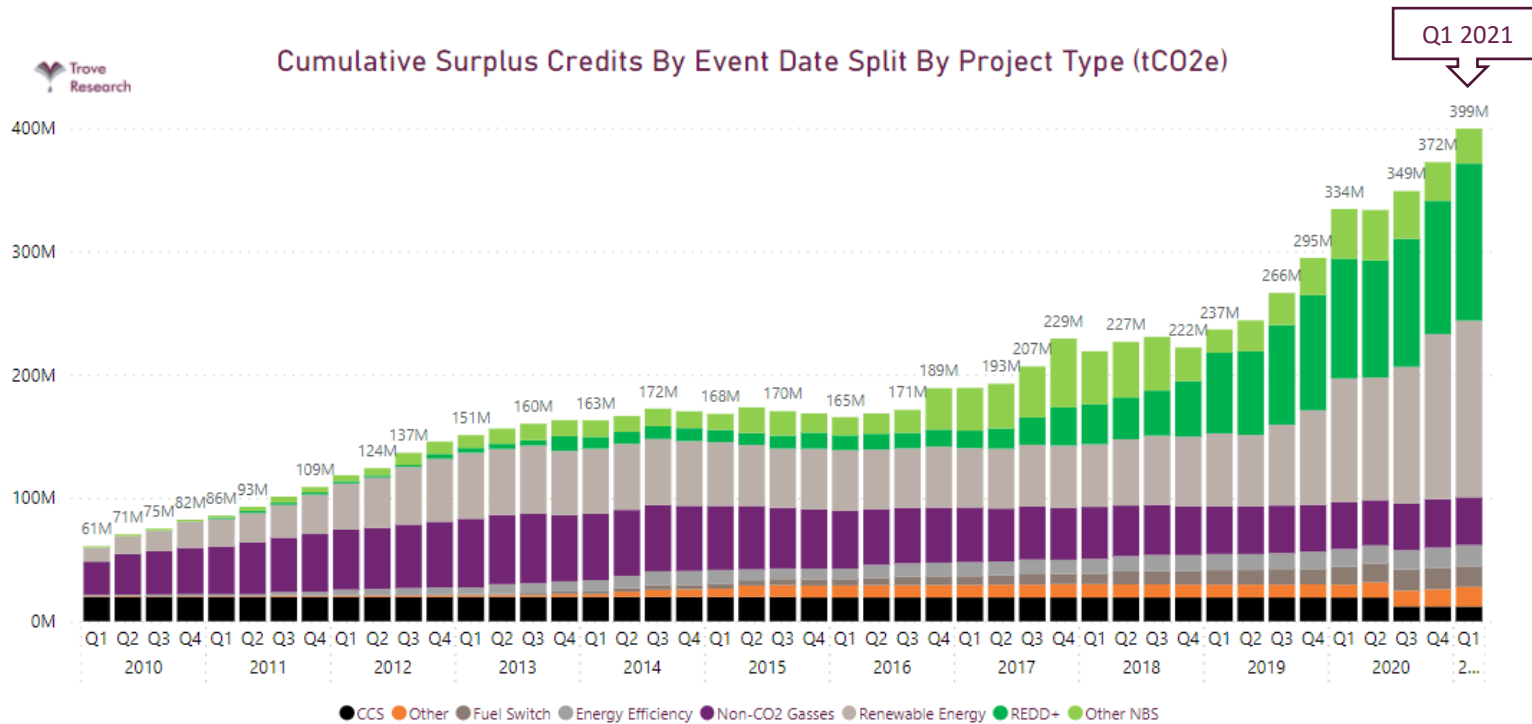
Source: www.trove-intelligence.com

Explainer: Cancellations refer to the carbon credits used in the California cap and trade scheme for compliance purposes. Entities in the scheme can use compliance offset credits to meet up to 8 percent of their compliance obligation for emissions through 2020; 4 percent of their compliance obligation for emissions from 2021-2025; and 6 percent for emissions from 2026-2030. All projects eligible for the California scheme must be from US based projects, and from 2021 onwards, at least 50% of the offsets used by an entity must be from projects that provide direct environmental benefits in the state of California.

Note: Mt refers to MtCO₂e

4. Carbon credit surplus by project type

The surplus in the market increased in Q1 2021 from 372Mt to 399Mt.



- The market surplus grew in Q1 2021 to 399Mt (+7%), following a continuous increasing trend over the years 2010 – 2021 as issuances exceed retirements.
- The surplus has increased by 554% from Q1 2010 to Q1 2021. In this period the surplus has decreased in just 8 quarters.
- As of Q1 2021, 32% and 36% of this surplus consisted of REDD+ and Renewable Energy credits respectively.
- Much of the growth in the surplus since Q1 2019 has been due to increased issuances of renewable energy credits, as increased interest and prices in VCM has encouraged greater issuance activity – the surplus of renewable energy credits has increased by 141% from Q1 2019. In comparison, the surplus of REDD+ and Other NBS credits have increased by 98% and 50% respectively over the period.

Note: Mt refers to MtCO₂e

Source: www.trove-intelligence.com

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Managing the transition from an economy based on fossil fuels to one powered by clean energy is a unique global challenge, requiring unprecedented levels of investment and international coordination. Trove Research has the experience to help clients navigate the disruptions and opportunities that these changes will create.

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