

# High-Quality Carbon Offsets Can Unlock \$1 Trillion Future

By Layla Khanfar and Kyle Harrison

- Prices peak at \$243 per ton in 2046 in high-quality market
- High-quality supply mix is dominated by nature-based credits

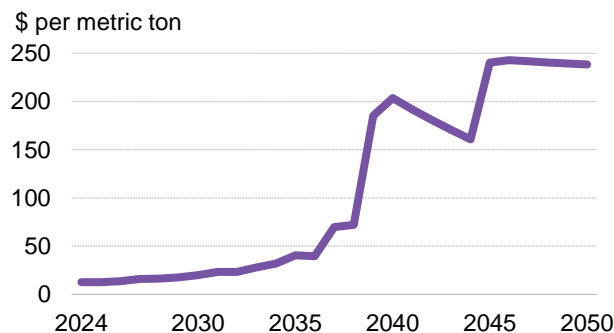
As carbon offsetting grapples with an integrity problem, universal standards that spur a shift to only high-quality credits could see the market's valuation top \$1 trillion by 2050.

Restoring confidence and credibility is top of the agenda for industry players this year. The Integrity Council for Voluntary Carbon Markets is assessing available offsets against its high-integrity standards, better known as the Core Carbon Principles (CCP).

Major registries, including Verra and Gold Standard, have applied for CCP certification and the results are due to be released this month. The ICVCM estimates high-integrity credits could amount to 56% of available supply in today's voluntary carbon market, which could dramatically alter the offsetting landscape.

The excitement around the CCPs naturally begs the important question of what a high-quality market would look like. According to BloombergNEF's latest *Long-Term Carbon Offsets Outlook*, the market would initially struggle to get out of the gate due to weak demand signals early on ([web](#) | [terminal](#)). However, appetite for credits – each of which negates a metric ton of CO2 emissions – would rise progressively in

## High-quality offset prices with inelastic demand



Source: BloombergNEF

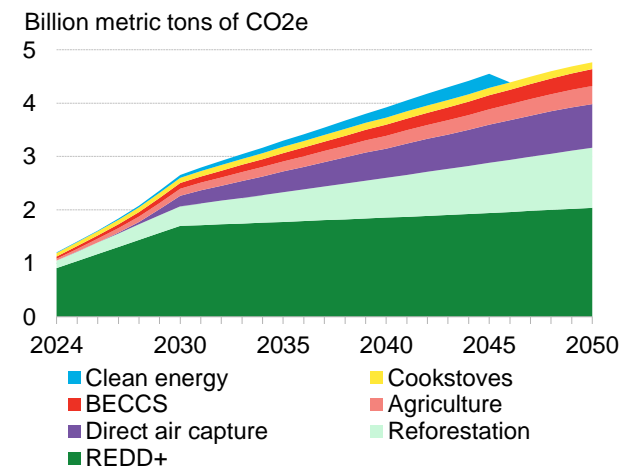
later years as net-zero targets come to roost. Prices could peak at \$243 per ton in 2046, valuing the market at \$1.13 trillion. Companies would be able to purchase offsets without the fear of greenwashing – a huge boon for corporate sustainability goals.

## High-quality offset supply is diverse

A 'high quality' offset should satisfy criteria that ensures it is measurable, permanent and 'additional' – in other words, the emissions reduction wouldn't have occurred without the prospect of selling credits from a project.

BNEF estimates 57% of current supply will be able to meet these specifications from a plethora of sectors and geographies, in line with the ICVCM's view. Based on project quality assessments from ratings agency BeZero, BNEF sees high-quality supply reaching 2.7 billion offsets in 2030 and 4.8 billion in 2050.

## Carbon offset supply in high-quality scenario



Source: BloombergNEF. Note: BECCS refers to bioenergy with carbon capture and storage; REDD+ is avoid deforestation. One offset = one metric ton of CO2 equivalent.

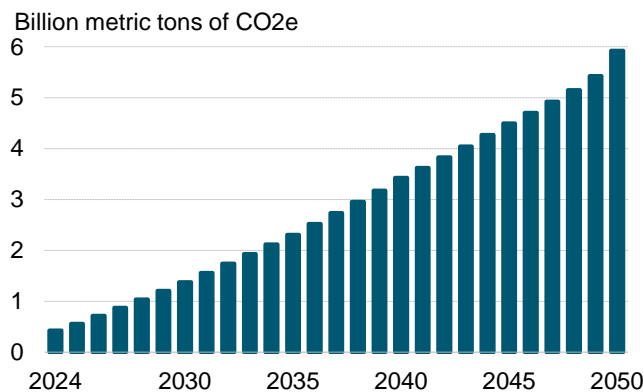
Nature-based offsets would play a significant role in the supply mix in a high-quality market, competing with technology-based removals. Avoided deforestation (better known as REDD+) is the most prominent sector in BNEF’s scenario, making up 43% of supply in 2050, followed by 24% from reforestation and 17% from direct air capture.

## Demand grows, unphased by reputational risk

While having universal integrity standards alleviates quality concerns and raises the bar for remaining supply, BNEF expects offsets will still just be used as a last resort for companies even in a high-quality market. Standard setters such as the Science Based Targets initiative will still require corporations offset as only a backstop for ‘residual’ emissions – those left over once all other decarbonization options have been exhausted – emphasizing systemic change as they clean up their value chains first and foremost.

BNEF’s outlook assumes firms are committed to meeting their net-zero targets and will therefore buy offsets regardless of their price in a high-quality market. This ‘inelastic fundamental demand’ based on addressing residual emissions grows steadily as deadlines for net-zero targets approach. BNEF estimates demand could reach 1.4 billion offsets in 2030 in a high-quality scenario, climbing to 5.9 billion in 2050.

## Outlook for long-term inelastic fundamental offset demand



Source: BloombergNEF. Note: One offset = 1 metric ton of CO2 equivalent.

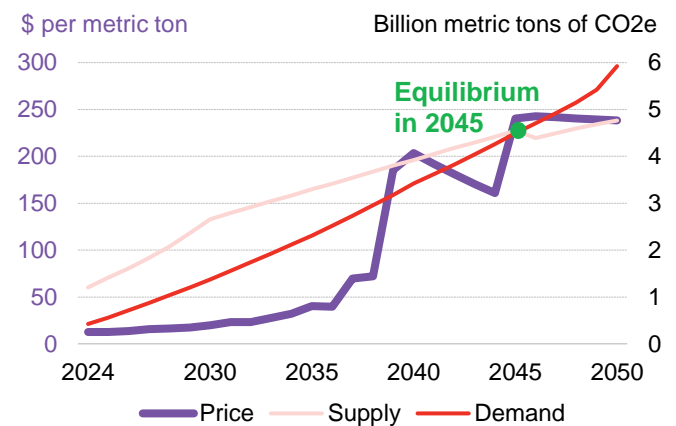
## High prices encourage systemic change

The inelastic nature of demand for offsets in a high-quality market means demand is low early on as most net-zero targets are years away from their end date. Prices are therefore suppressed in the near term in BNEF’s scenario, reaching just \$20 per ton by the end of the decade, which could cause stakeholders to question the market’s credibility, even with integrity standards in place.

Offset demand only eats through 52% of high-quality supply in 2030 and it is not until later that decade, when net-zero deadlines are within sight, that demand really starts to catch up with supply and prices begin to rise significantly. Under BNEF’s high-quality scenario, demand reaches 74% of supply in 2040, causing prices to jump to \$203 per ton.

From 2045, the market then becomes undersupplied as firms scramble to offset and supply of high-quality credits runs out, pushing prices up to \$238 per ton in 2050.

## High-quality offset market scenario with inelastic demand



Source: BloombergNEF. Note: One offset = 1 metric ton of CO2 equivalent.

## Real world implications

Unsustainably high prices and an undersupplied market present financial risk for companies that are struggling to meet their net-zero goals. However, such risk signals to firms the necessity of implementing

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systemic decarbonization methods earlier in their net-zero journey. This would minimize the volume of emissions needing to be offset.

On the other hand, curtailing almost half of available supply in the market and marking it as 'low quality' presents a massive risk for project developers. A low-quality market would likely still exist in the near term as integrity standards are still finding their footing, serving companies that are not bound by integrity standards. However, it will be phased out as the voluntary market matures and commoditizes later on.

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