

Carbon removal prices 2026 to 2040

Senken's overview of carbon removal (CDR) price trends from 2026 to 2040. We review where prices for nature- and tech-based removals are heading, based on our internal data and market research.



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Removal prices rise to 2040. They do not fall.

€33 → €88

per tonne for nature-based removals (rated ARR), 2026 to 2040, base case. The price ranges from €54 to €140.

€120 → €180

per tonne for biochar on the Nasdaq index basis, 2026 to 2040, base case. The price ranges from €136 to €215.

 **Costs are not falling.** Across 43 million tonnes of contracted removal, durable methods show a learning rate of 1% per doubling of capacity. Solar managed 20%.

 **Supply takes years.** A new forest needs five to ten years to issue its first credit, a biochar plant 12 to 24 months. Demand for 2035 cannot be met by planting in 2035.

 **Demand has dates.** From 2035, companies with an SBTi target must buy removals equal to at least 1% of their emissions, rising every year after that.

Nature- and tech-based removals are priced separately

The standards treat them as different obligations. A single market average would mix rated and unrated supply and hide the gap between the two.



Nature-based (ARR)

Afforestation and reforestation, counted only at the rated tier: BeZero or Sylvera BBB+, ICVCM CCP, EU CRCF.

Storage

Short-lived, in the standards' terms

What limits supply

Land

Time to first credit

5 to 10 years



Tech-based (biochar)

Pyrolysed biomass. One of three methods the EU recognises as permanent, with DACCS and BioCCS. Priced on the Nasdaq index, because that figure is public.

Storage

Long-lived

What limits supply

Biomass and plant capacity

Time to first credit

12 to 24 months

Other durable methods exist. BECCS, enhanced weathering, mineralisation and direct air capture all cost more today (supplier breakeven per tonne in 2025: \$232, \$272, \$316 and \$670, CDR.fyi x OPIS) and sell in smaller volumes.

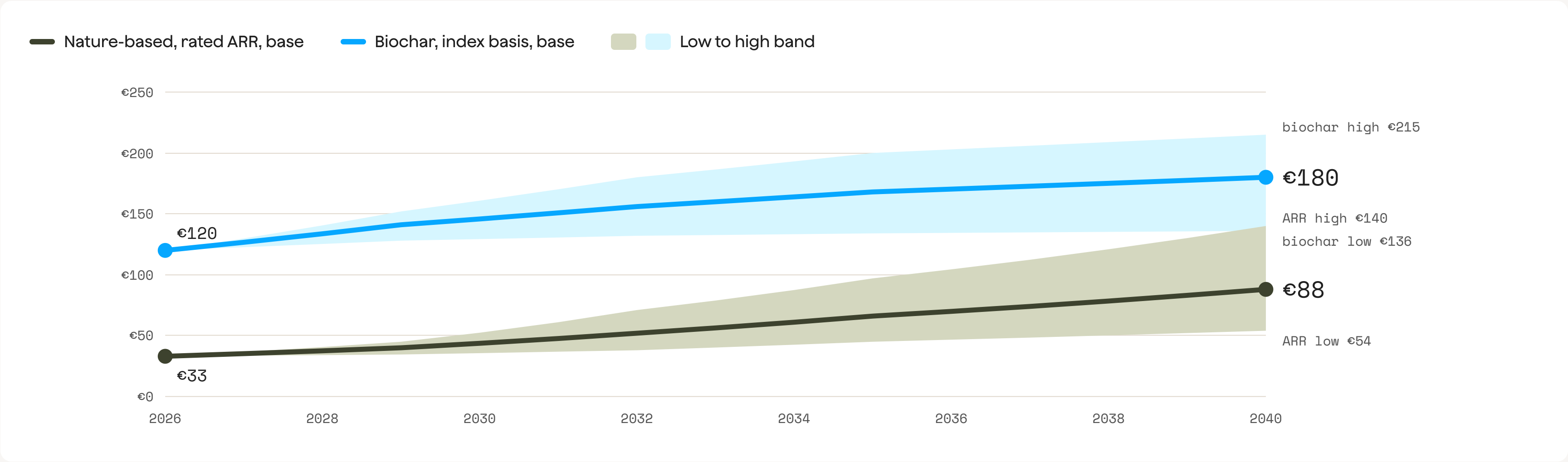
Where prices stand today

The corridor starts from published prices, not estimates. The spread inside one class shows how much quality moves the price.

REFERENCE POINT	PRICE PER TONNE	SOURCE AND DATE
Nature-based ARR, BeZero BBB	\$40 to 45	Fastmarkets x BeZero, April 2026
Nature-based ARR, Sylvera BBB+, retirement-weighted	\$28.55	Sylvera, Q2 2026
Nature-based ARR, all transactions, full year	\$20.44	Ecosystem Marketplace, 2025
Biochar, Nasdaq CORCCHAR index	€120.67	Puro.earth / Nasdaq, June 2026
Biochar, supplier breakeven	\$143	CDR.fyi x OPIS, 2025
Quality premium: BBB+ against the market average, all credit types	\$6.80 vs \$3.50	MSCI, January 2026
Corridor starting point, nature-based	€33	Senken, from the three ARR prices above
Corridor starting point, biochar	€120	Senken, the model anchor on the index basis

The corridor to 2040

Low, base and high for each class, in euros per tonne of CO2, nominal. The base line is a central case, not a prediction. Plan with the band.



Source: Senken, built from the published prices on page 05 and the drivers on pages 09 to 11. FX held flat at EUR/USD 1.1535.

The numbers behind the chart

Euro per tonne of CO2, nominal. The Senken base case is highlighted, and it is never shown without its band.

EURO PER TONNE	2026	2030	2035	2040
Nature-based, low	33	36	45	54
Nature-based, base	33	44	66	88
Nature-based, high	33	52	97	140
Biochar, low	120	129	134	136
Biochar, base	120	146	168	180
Biochar, high	120	161	200	215

7.3%

a year: nature-based base path, 2026 to 2040

2.9%

a year: biochar base path, 2026 to 2040

3.6x → 2.0x

the gap between a durable and a nature-based tonne narrows. It does not close.

No institution publishes a per-tonne price path to 2040 for this segment. BNEF gives 2030 and 2050 only, MSCI publishes market value rather than price, and AlliedOffsets averages across all credit types.

What has to be true at each edge

Low

2040: €54 nature-based · €136 biochar

Demand disappoints and supply arrives. The SBTi's 2035 date slips or is watered down at the next review, the EU ETS proposal is cut back, and capacity outside Europe certifies faster than expected.

Base

2040: €88 nature-based · €180 biochar

The rules apply as adopted and supply lags demand. Biochar finishes its correction back to production cost by 2029. After that its short build cycle slows the rise, because foreseeable scarcity gets built for in advance.

High

2040: €140 nature-based · €215 biochar

Compliance demand arrives early and supply cannot respond. Land competition binds the nature-based side, and aviation fuel bids for the same sustainable biomass as biochar.

The bands are not symmetric on purpose. Nature-based can run further up, because land is the limit and nothing relieves it. Biochar is capped, because European BECCS, at €234 to 331 a tonne, would take over as the cheaper durable tonne.

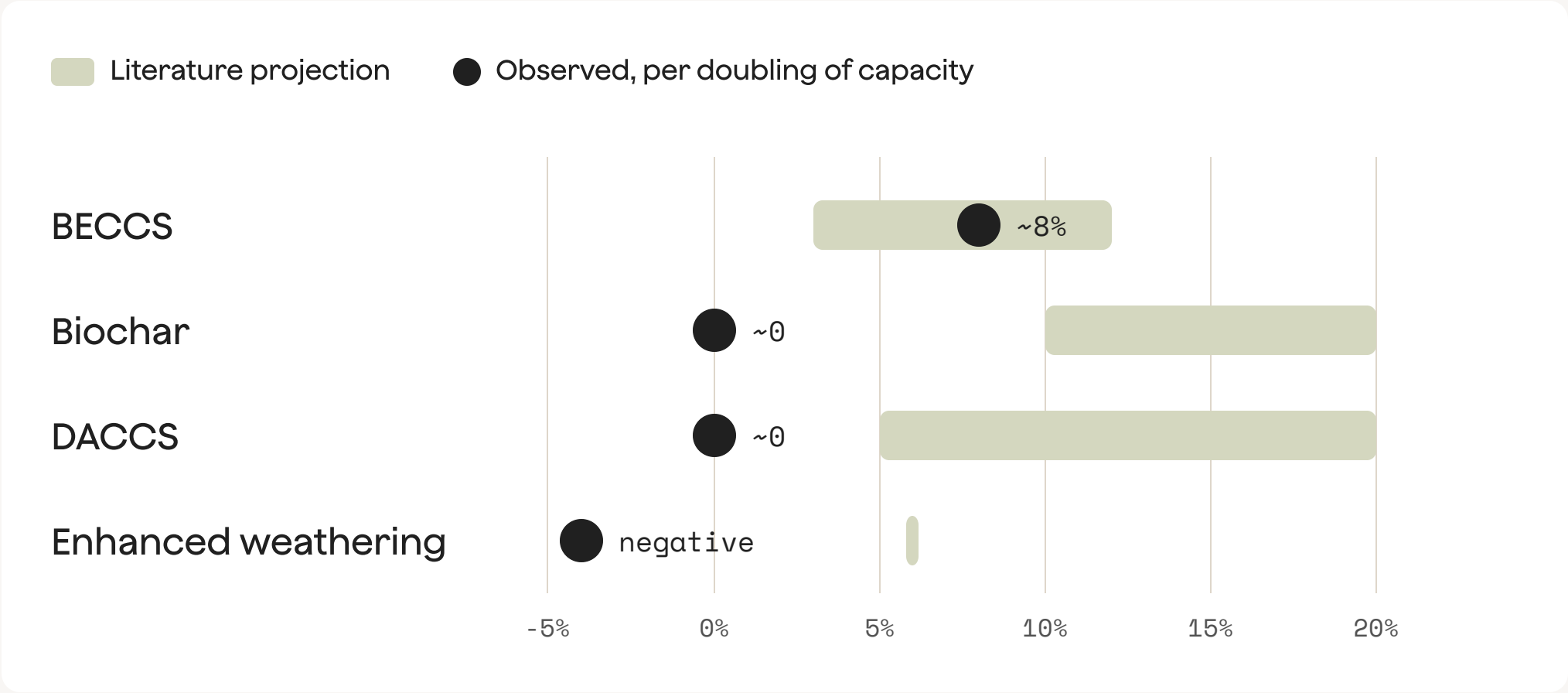
Driver 1: costs are not falling

The common assumption is that removal is young and will get cheaper, the way solar did. In June 2026 the Grantham Research Institute at LSE measured it across 43 million tonnes of contracted removal.

1%

observed learning rate per doubling of capacity, across all durable removal. Solar PV managed 20% between 1976 and 2019.

A price fall would have to come from weak demand, not from falling cost.



Source: Meissner, Burke and Taschini, Carbon dioxide removal prices and the challenge of emissions trading system integration, Grantham Research Institute, LSE, 8 June 2026.

Driver 2: supply takes years to build

The limit is physical, not commercial. Demand that appears in 2035 cannot be met by planting in 2035.



5 to 10 years
from planting to the first credit for a nature-based project (Verra VM0047)



12 to 24 months
from investment decision to the first credit for a biochar plant

Meanwhile the rules are getting stricter, not looser, while the supply base is still being grown.

2026/285
EU CRCF in force. The delegated regulation recognises DACCS, BioCCS and biochar as permanent removals.

38 of 59
methods assessed by the ICVCM carry its Core Carbon Principles label (March 2026).

Sources: Verra VM0047; ICVCM assessment status, 23 March 2026; EU CRCF, Delegated Regulation (EU) 2026/285; Exomad Guarayos build timeline, 2025 to 2026.

Driver 3: demand already has dates

This demand does not need forecasting. It is written into adopted rules, each with a date. One item is still a proposal, and it is marked.



Sources: Directive (EU) 2024/825; SBTi CNZS V2.0, June 2026; EU 2040 climate target, adopted 5 March 2026; EU ETS review proposal, July 2026; Oeko-Institut, November 2025.

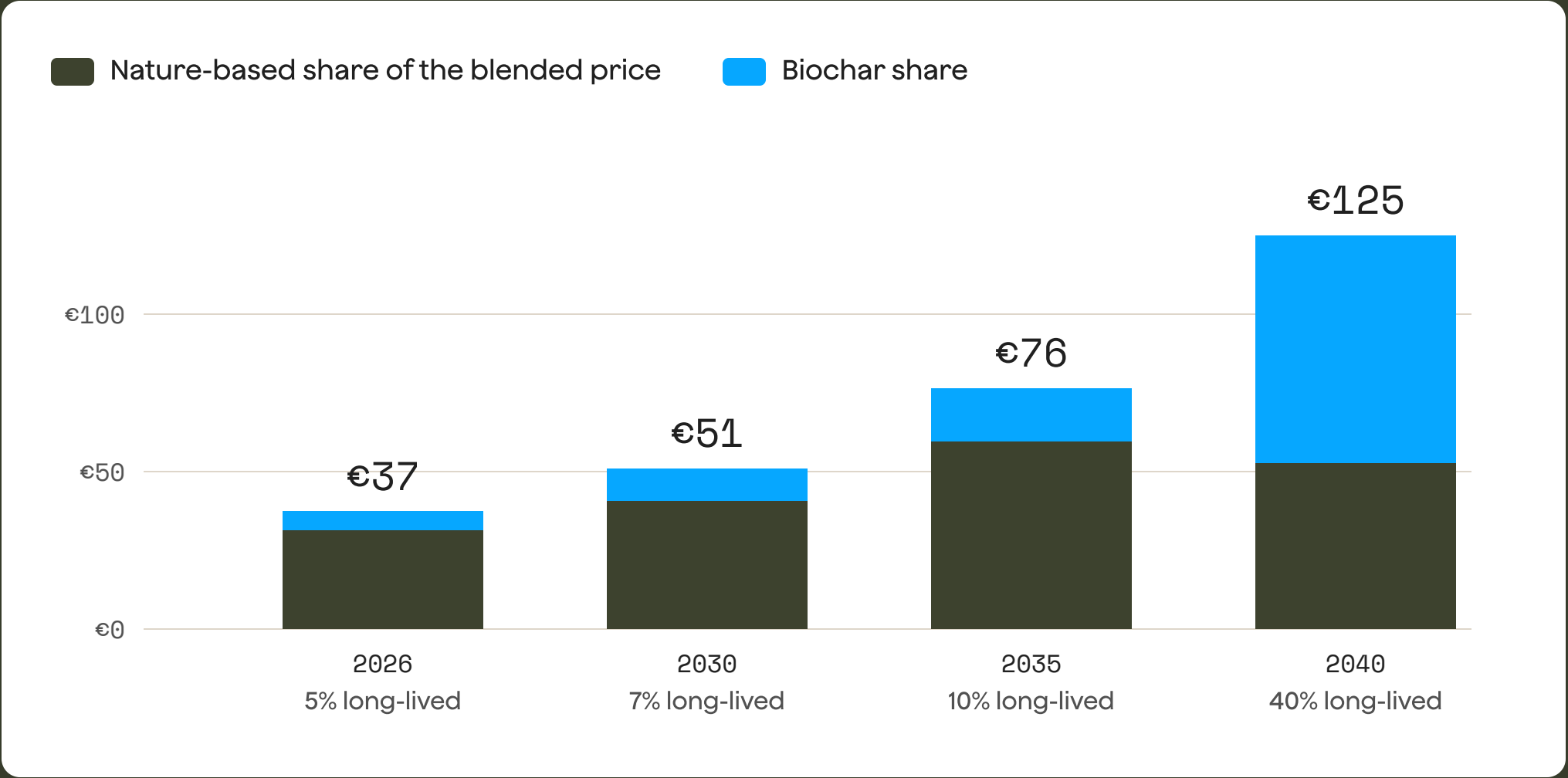
A buyer's blended price rises faster than either curve

The required share of long-lived removals rises over time, so the mix shifts towards the more expensive tonne while you are buying.

3.3x

rise in the blended price per tonne, 2026 to 2040, base case. Nature-based on its own rises 2.7x, biochar 1.5x.

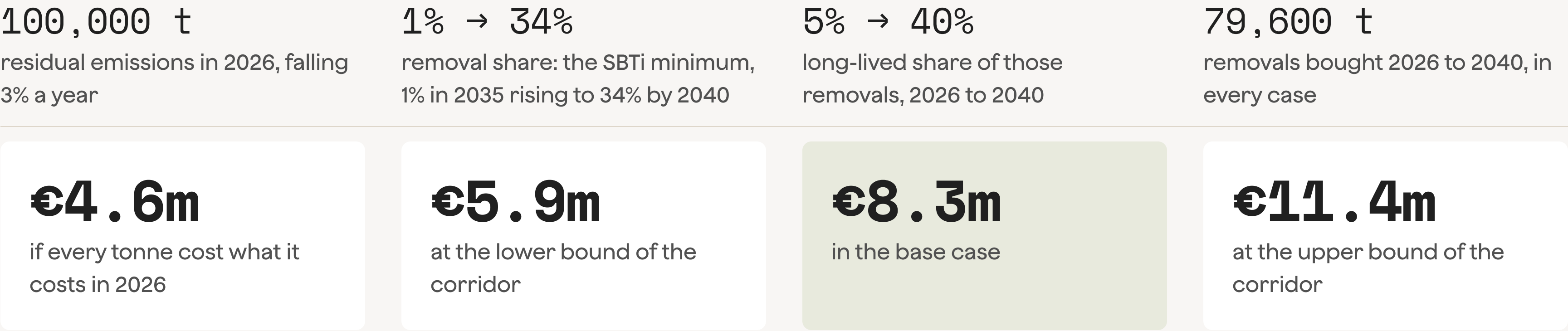
The 10% long-lived share from 2035 is set in the SBTi standard. The shares before and after it are modelling assumptions.



Source: Senken base case, both series; SBTi Corporate Net-Zero Standard V2.0, June 2026.

A worked example

One company's removal budget, 2026 to 2040. Same tonnes in every case, only the price changes.



One market observation to put next to these figures. Multi-year contracts for biochar have recently cleared below spot, at \$80 to 120 against \$140 (S&P Global Platts, October 2025), and forward curves sit below spot in both regions Platts assesses.

Source: Senken portfolio model on the index-basis series; S&P Global Platts, 7 October and 13 November 2025.

How the corridor was built

- 01

Start from published prices. Base-year values come from Fastmarkets x BeZero, Sylvera and Ecosystem Marketplace for nature-based, and from the Nasdaq CORCCHAR index for biochar.
- 02

Set a growth rate per period. Four periods: 2027 to 29, 2030 to 32, 2033 to 35, 2036 to 40. Each rate is argued from the three drivers, cost, supply and demand.
- 03

Define the edges as scenarios. Low and high are cases with named conditions (page 08), not statistical bands.
- 04

Check against published outlooks. BNEF, McKinsey, AlliedOffsets, Carbon Market Watch, the Oeko-Institut and Favero and Austin, used as checks, not as inputs.

These figures are Senken's construction from published sources. They are not a third-party forecast and should not be cited as one.

LIMITS

- A small evidence base.**

The market for rated removals is a few years old.
- Concentrated demand.**

One buyer holds 78% of all durable removal contracted so far.
- One rule is a proposal.**

Removals in the EU ETS are proposed, not adopted.

Sources

Every figure in this outlook traces to one of these. Where Senken has made a judgement, the page says so.

01	Nasdaq CORC Biochar Price Index (CORCCHAR), Puro.earth and Nasdaq Copenhagen, June 2026	09	MSCI, carbon markets outlook, 6 January 2026
02	Fastmarkets x BeZero, ARR BBB price assessment, 8 April 2026	10	Bloomberg NEF, Long-Term Carbon Offset Outlook 2024 and Supply Outlook 2025
03	Sylvera, Q2 2026 market snapshot, 13 July 2026	11	McKinsey, carbon removals cost outlook, 4 December 2023
04	Ecosystem Marketplace, State of the Voluntary Carbon Market 2025	12	AlliedOffsets, market outlook, March 2025
05	Meissner, Burke and Taschini, Grantham Research Institute, LSE, 8 June 2026	13	Carbon Market Watch, 5 September 2025
06	CDR.fyi x OPIS, supplier and buyer price survey, January 2025	14	Oeko-Institut, EU 2040 target analysis, 19 November 2025
07	S&P Global Platts, biochar price assessments, October and November 2025	15	SBTi Corporate Net-Zero Standard V2.0, June 2026
08	Carbon Direct, State of the Voluntary Carbon Market 2026	16	EU CRCF, Delegated Regulation (EU) 2026/285; EU 2040 climate target, 5 March 2026; EU ETS review proposal, July 2026



About this outlook.

Senken helps companies in Europe find and buy high-quality carbon credits, backed by project analysis and transparent evidence. We publish our market research because better insight makes better markets. Cite this outlook as: Senken (2026), Carbon removal prices 2026 to 2040, www.senken.io/reports.



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