DEUTSCHER VERBAND FÜR NEGATIVE EMISSIONEN (DVNE)

Delivering the tonnes: making the ETS carbon removal mechanism work

Position on COM(2026) 616, revision of Directive 2003/87/EC · September 2026

KEY MESSAGES

- Make the 250 Mt of CDR a delivery obligation in the operative text.
- Open eligibility to all permanent carbon removals certified under the CRCF.
- Close the price gap by making carbon removal eligible for Carbon Contracts for Difference under the Industrial Decarbonisation Bank and assigning unused revenue from the International Credits fund to CDR.
- Offer offtake agreements from 2029, so that supply exists when procurement begins in 2031.
- Permit a capped 1% direct route that creates no additional emission space.
- Require the 2034 review to be accompanied by a legislative proposal for the period after 2040.

A landmark decision

On 17 July 2026 the European Commission put the financial machinery of the world's largest carbon market behind permanent carbon dioxide removal. Obligated entities still cannot surrender removal units against their compliance obligations, so the proposal does not integrate CDR into the EU ETS directly. What it does is **use ETS revenues to procure permanent carbon removal at industrial scale within the ETS ecosystem:** 250 million allowances auctioned between 2031 and 2040 to purchase an equivalent volume of CRCF-certified permanent removals, rising towards 48 Mt a year by 2040, with 10 million allowances held in reserve against the price gap. That is a public commitment in the order of €50 billion, and the first time any compliance system has treated a tonne durably removed as the equal of a tonne not emitted.

DVNE welcomes this. Neither the EU's 2050 climate neutrality objective nor Germany's 2045 target, and certainly not the net-negative trajectory both require afterwards, can be met without permanent removals at a scale of tens of megatonnes a year to balance residual emissions from cement, waste, chemicals, agriculture, aviation and shipping. The design of the mechanism is sound, and the changes below are corrections to the drafting rather than to the approach.

DVNE calls on the co-legislators to make six changes

1. Make the 250 Mt a delivery obligation.

Article 9c(1) should state that the EU ETS will deliver 250 million tonnes of permanent carbon removals by 2040, and treat the 250 million allowances as the means of paying for them. As drafted, the obligation reads more like an ambition, with a risk of delivering less than the 250 Mt. A volume written into the law is also what a project developer can raise finance against. DVNE supports the 250 Mt figure as proposed and asks only that it be made binding.

2. Open eligibility to all permanent removals certified under the CRCF.

Article 9c(1) names BioCCS and DACCS. Delegated Regulation (EU) 2026/285 certifies BioCCS, DACCS and biochar carbon removal as permanent under the Union's own framework . As drafted, however, the proposal admits only a subset of the permanent carbon removal pathways already recognised by the Union and risks becoming outdated as additional permanent removal methodologies are developed and certified under the CRCF.

This has considerable implications. The Commission's funding plan assumes that removal costs converge with the allowance price during the second half of the 2030s. Achieving this objective will require access to a broad and competitive portfolio of permanent removal pathways, rather than relying on a limited number of technologies selected in advance. The programme should therefore allow all permanent removal methods certified under the CRCF to compete on equal terms, based on common criteria for permanence, additionality, monitoring, reporting and verification. This would enable the most cost-effective and scalable solutions to contribute to the Union's funding objectives, while avoiding premature technology lock-in.

The same consideration applies to the geographic distribution of economic activity. BioCCS and DACCS largely depend on access to suitable geological storage and related infrastructure, potentially concentrating deployment in a limited number of Member States. Other permanent removal pathways, including biochar carbon removal and future methods recognised under the CRCF, may rely on different combinations of biomass, renewable energy, industrial infrastructure or other locally available resources. A technology-neutral framework would therefore support deployment across a broader range of Member States and help distribute industrial activity and rural income more widely.

Article 9c(1) should consequently ensure eligibility for all permanent carbon removal methods certified under the CRCF, including methodologies recognised after the adoption of the programme.

3. Close the price gap through the Industrial Decarbonisation Bank.

Closing the price gap will take more money than the proposal sets aside, and the 10 million allowances held in reserve should be a first installment rather than the limit.

The main opportunity is the Industrial Decarbonisation Bank, which exists to de-risk industrial investment and should support carbon removal on the same terms. Two things stop it. Its mandate reaches removals only where they occur at an installation already covered by the ETS, which excludes most removal projects. And it can only pay against emissions avoided, so a tonne removed does not qualify. With both corrected, the Bank could award Carbon Contracts for Difference to removal projects. A CCfD pays the difference between the cost of a removal and the prevailing allowance price, so support falls as the gap narrows and ends when it closes.

There is also money already committed. Allowances set aside to buy international credits, which the Commission accepts may never become available at the quality required, currently revert to the Bank. They should go to the removals programme first.

4. Offer offtake agreements from 2029.

First-of-a-kind facilities need three to five years from final investment decision to first delivery. An offtake signed in 2031 therefore produces its first tonnes around 2035/36, which puts the ramp to 48 Mt a year in 2040 out of reach. The Commission should be able, and required, to

conclude long-term offtake agreements from 2029, with the enabling delegated act adopted within twelve months of entry into force.

5. Permit a capped direct route.

Obligated entities should be able to meet up to 1% of their annual surrender obligation with CRCF-certified permanent removal units bought directly. The cap is deliberately small. Each unit is deducted from the 250 Mt central programme and the matching allowance cancelled, so no additional emission space is created and the gross cap is untouched. Article 9c(5) already makes this adjustment for removals an operator generates on its own site, so the accounting is established rather than new. The value lies in what it produces: a direct commercial relationship between emitters and suppliers, a price formed outside a single public buyer, and a chance to test direct integration within clear boundaries before the framework for the 2040s has to be designed.

6. Require the 2034 review to produce a proposal.

Article 9c(8) asks the Commission to assess. It should also require a legislative proposal for the period after 2040, delivered alongside the report. The reason is contractual. Removal projects are financed on offtakes of ten to fifteen years, and a developer signing in 2035 can at present be offered a contract that expires in 2040. The programme will lose the ability to contract new supply several years before it formally ends. The proposal should also cover ETS2, whose sectors will carry residual emissions well beyond 2050.

Two further points

International credits. DVNE supports opening a route to international credits under Article 9b, governed by two principles. The Commission should buy at the highest quality available rather than at the threshold of acceptability, applying standards of permanence, additionality and traceability at least equivalent to those the CRCF imposes on European suppliers. Within that bar, removals should take priority over reduction credits, and should form the large majority of the volume purchased.

Carbon farming has a place after 2034, with a permanence guarantee. DVNE does not accept that CRCF-certified carbon farming units should be excluded from the EU ETS permanently. Soil carbon, agroforestry and comparable activities deliver real climate, biodiversity and rural income benefits. The obstacle is the like-for-like principle: fossil CO_2 persists for centuries, so a unit used to compensate it has to deliver equivalent durability. That gap can be closed by institutional design rather than by lowering the bar, for instance through a permanence trust: a pooled, capitalised entity holding carbon farming units alongside dedicated financial reserves, carrying a standing obligation to make good any reversal, and converting non-permanent sequestration into a durable, liability-backed claim. DVNE asks the co-legislators to keep this route open by requiring the 2034 review to assess such mechanisms, and to pilot them meanwhile, while not admitting carbon farming units into the EU ETS before such a mechanism exists and has been tested.

Europe has taken the decision that matters. Whether the mechanism delivers the volumes it promises is still open. The proposed amendments follow in the Annex.

Annex: proposed DVNE amendments

Amendments are listed in the order in which the provisions appear in the Directive. The four marked ★ **PRIORITY** are those DVNE regards as essential: without them the volume is not binding, the technology list stays closed, and the Industrial Decarbonisation Bank cannot pay for a removed tonne.

*Insertions are shown in **bold italics**, deletions ~~struck through~~. Ellipses mark unchanged text.*

Section	Text proposed by the Commission	DVNE amendment	Justification
★ **PRIORITY** **Recital (31)** *Technology neutrality*	The integration in the EU ETS rests on the basic principle that the cancellation of a removal unit replaces the surrendering of an emission allowance, which represents the payment of the price for having emitted a tonne of CO2. As a consequence, only permanent removals can be integrated in the EU ETS. In addition, it is preferrable to integrate only those removals for which reversals are subject to monitoring and the surrendering of allowances in the EU ETS.	The integration in the EU ETS rests on the basic principle that the cancellation of a removal unit replaces the surrendering of an emission allowance, which represents the payment of the price for having emitted a tonne of CO2. As a consequence, only permanent removals can be integrated in the EU ETS. ~~In addition, it is preferrable to integrate only those removals for which reversals are subject to monitoring and the surrendering of allowances in the EU ETS.~~ ***Eligibility should be technology-neutral: all carbon removals certified as permanent under Regulation (EU) 2024/3012 and its delegated acts should be eligible. Removal methods that store carbon permanently without requiring ongoing monitoring of reversals, as established in those delegated acts, satisfy the permanence requirements of this Directive.***	The first two sentences state the correct principle, that only permanent removals belong in the EU ETS, and DVNE supports them. The third treats reversal monitoring as the definition of permanence rather than as one means of assuring it. The Commission's own Impact Assessment (Annex 8) concludes that methods storing carbon in a stable, inert solid form do not require reversal monitoring, and Article 12(3b) of the Directive already regulates CO2 permanently chemically bound in a product on that basis. As drafted, this sentence supplies the justification for the closed technology list in Article 9c(1).
Recital (32) *Volume and funding*	The current price-difference between permanent carbon removals and allowances means that permanent removals will need to be supported in a predictable manner […] In addition to these newly created allowances, further allowances should be assigned to the Commission to generate revenues through their auctioning for the purchase of the permanent carbon removals, in	[…] ***The Union should procure a total volume of 250 million tonnes of permanent carbon removals by 2040.*** […] In addition to these newly created allowances, ***sufficient*** further allowances should be assigned to the Commission to generate revenues through their auctioning for the purchase of the permanent carbon removals, in view of the expected cost differential between allowances and carbon removals ***and so as to ensure delivery of***	The recital frames the programme around a quantity of allowances, while the environmental outcome depends on the volume of removals actually delivered. Independent modelling puts the shortfall between the proposed funding and the real cost of 250 Mt at roughly €2 billion per year over 2031–2040. The recital should acknowledge that complementary funding

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	view of the expected cost differential between allowances and carbon removals. […]	***that volume. Where the revenues available under Article 9c are insufficient, complementary support should be provided through the Industrial Decarbonisation Bank and other instruments financed from ETS revenues.*** […]	will be required, so that the Article 9c(2) reserve is read as a starting point rather than as a limit.
Article 9b(5) *Unused allowances*	5. Allowances set aside under paragraph 1 shall be allocated to the Industrial Decarbonisation Bank for industrial decarbonisation projects in accordance with Article 10ce in the event they are not allocated for the purposes established in paragraph 1.	5. Allowances set aside under paragraph 1 shall be allocated ***to the purchase of domestic permanent carbon removals in accordance with Article 9c, and thereafter*** to the Industrial Decarbonisation Bank for industrial decarbonisation projects in accordance with Article 10ce, in the event they are not allocated for the purposes established in paragraph 1.	Up to 260 million allowances are set aside for international credits that the Commission itself acknowledges may not become available at the required quality. If they are not used, directing them first to the domestic removals programme closes the funding gap at no cost to the cap and with no additional allowances issued. This is the largest contingent funding source in the proposal, and it is currently directed elsewhere.
★ **PRIORITY** **Article 9c(1)** *Volume, eligibility, offtakes*	1. The Union-wide quantity of allowances referred to in Article 9 shall be increased by 250 million allowances. Those allowances shall be made available to the Commission to auction them from 2031 to 2040 to generate revenues for the purchase of an equivalent amount of domestic permanent carbon removal units generated by BioCCS and DACCS activities under Regulation (EU) 2024/3012 of the European Parliament and of the Council. The Commission shall purchase those removals units prioritising a portfolio of cost-effective, high-integrity projects with payment upon delivery of the certified units.	1. ***The EU ETS shall deliver a volume of 250 million tonnes of domestic permanent carbon removals by 2040. To that end, the*** Union-wide quantity of allowances referred to in Article 9 shall be increased by 250 million allowances. Those allowances shall be made available to the Commission to auction them from 2031 to 2040 to generate revenues for the purchase of an equivalent amount of domestic permanent carbon removal units ~~generated by BioCCS and DACCS activities~~ ***certified as permanent*** under Regulation (EU) 2024/3012 of the European Parliament and of the Council ***and its delegated acts***. The Commission shall purchase those removals units prioritising a portfolio of cost-effective, high-integrity projects with payment upon delivery of the certified units, ***and shall offer long-term offtake agreements in accordance with paragraph 4***.	Two of the six changes sit here. First, a volume obligation rather than an allowance quantity is what makes the programme bankable and what protects the EU ETS from a net emissions increase. The 250 Mt figure is unchanged. Second, a CRCF-anchored eligibility reference replaces the closed list. Delegated Regulation (EU) 2026/285 certifies BioCCS, DACCS and biochar carbon removal as permanent under one shared methodology, and further methods enter as they are certified, without reopening the Directive. The cost case is decisive: the Commission's funding plan assumes removal costs converge with the allowance price in the second half of the 2030s, but on the Commission's own figures BioCCS reaches only €176 per tonne by 2040 and DACCS €278,

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			against expected allowance prices of €100 to €200. Biochar carbon removal is the only certified permanent method able to meet and undercut the allowance price, so the convergence the plan depends on cannot be achieved on the current list. Consequential amendments are required to Article 9c(5) and Article 9c(6), which refer only to BioCCS and DACCS units.
Article 9c(2) *Price-gap reserve*	2. An additional 10 million allowances from the Union-wide quantity of allowances referred to in Article 9 between 2031 and 2040 shall be made available to the Commission to auction them to generate revenues for the purchase of those permanent carbon removals units, in the event the revenues generated from the allowances under paragraph 1 would be insufficient for the purchase of the total amount of domestic permanent carbon removals units.	2. An additional ***minimum of*** 10 million allowances […] shall be made available to the Commission to auction them to generate revenues for the purchase of those permanent carbon removals units, in the event the revenues generated from the allowances under paragraph 1 would be insufficient […]. ***Sufficient funding shall be made available to deliver the volume set out in paragraph 1. Permanent carbon removal projects supplying units under this Article shall be eligible for support under Articles 10cc to 10ce. In the report referred to in paragraph 8, the Commission shall assess whether the quantity under this paragraph should be increased.***	Ten million allowances is roughly 4% of the 250 million earmarked for removals, set against a cost differential independent modelling estimates at some €20 billion over the decade. Treating the reserve as a minimum, and pairing it with an explicit route into the Industrial Decarbonisation Bank, closes the gap without issuing a single allowance beyond what the proposal already contemplates.
Article 9c(4) *Offtakes and delegated act*	4. The Commission is empowered to adopt delegated acts in accordance with Article 23 to supplement this Directive concerning the detailed modalities for the purchase of the domestic permanent carbon removal units indicated under paragraph 1, including the timing of the auctioning of the allowances referred to in paragraphs 1 and 2; the forms of support, selection procedure and criteria, eligibility criteria and technological requirements […]	4. ***Procurement shall be cost-effective and shall make use of long-term offtake agreements to contract removals in advance of delivery. Such agreements shall be offered as soon as possible and no later than 2029, and shall be of a duration sufficient to enable projects to reach final investment decision.*** The Commission is empowered to adopt delegated acts ***no later than 12 months after the entry into force of this Directive*** in accordance with Article 23 to	Payment on delivery is the right principle, but becomes bankable only if the payment is contracted in advance. First-of-a-kind facilities need three to four years from final investment decision to first delivery, so offtakes signed in 2031 produce first tonnes around 2035 and put the 48 Mt trajectory for 2040 out of reach. The deadline on the delegated act is what makes a 2029 offtake administratively feasible, given drafting and

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		supplement this Directive concerning the detailed modalities […]	comitology time. DVNE proposes no fixed contract term, which is a matter for the delegated act, informed by what the market can finance.
Article 9c(5a) *NEW: capped direct route*	[No equivalent provision. Article 9c(5) provides the analogous deduction mechanism for own-use removals under Article 14(1a).]	***5a. Operators, aircraft operators and shipping companies may surrender permanent carbon removal units certified under Regulation (EU) 2024/3012 and its delegated acts, which they have acquired directly, in respect of up to 1% of their verified emissions in a given year. Units surrendered under this paragraph shall be cancelled in the Union Registry provided for in Article 12 of that Regulation.***	The three categories named cover every entity with a surrender obligation under the Directive: operators of stationary installations, aircraft operators and shipping companies. The wording follows Article 9c(5) and Article 14(1a), which use the same formulation. The 1% cap, the deduction from the central programme and the cancellation of the corresponding allowances together ensure that the measure adds no emission space and does not weaken the cap, with the Commission remaining the primary purchaser by a wide margin. Its purpose is to create a direct commercial relationship between emitters and suppliers, to establish price discovery outside a single public buyer, and to test the boundaries of direct integration in advance of the framework required after 2040. The mechanism is modelled on Article 9c(5), which already makes the identical adjustment for own-use removals. A consequential amendment to Article 12(3) will be required.
Article 9c(8) *2034 review*	8. Before 31 December 2034, the Commission shall present a report to the European Parliament and to the Council in which it assesses the progress regarding the purchase of domestic permanent carbon removal units provided for under paragraph 1 […] The report shall also examine the	8. Before 31 December 2034, the Commission shall present a report […] ***The report shall be accompanied by a legislative proposal setting out the framework for the procurement and use of permanent carbon removals in the EU ETS for the period after 2040, consistent with the Union's***	The purchasing programme ends in 2040 while climate neutrality is 2050 and negative emissions come after. The binding constraint is contractual: removal projects are financed on offtakes of ten to fifteen years, so a developer signing in 2035 can be offered a

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	possible contribution of nature based removals and carbon farming sequestration units certified under Regulation (EU) 2024/3012 […] to permanent carbon removals, and assess the feasibility to gradually transition, from an integration managed by the Commission, towards a direct integration by operators, beyond own use, of domestic permanent carbon removal units in the EU ETS.	***objectives of climate neutrality by 2050 and negative emissions thereafter, and shall assess the role of permanent carbon removals in the sectors covered by Chapter IVa.*** The report shall also examine the possible contribution of nature based removals and carbon farming sequestration units certified under Regulation (EU) 2024/3012 […]	contract expiring in 2040, and the programme loses the ability to contract new supply several years before it formally ends. A report alone does not resolve that; a legislative proposal delivered with it does. Recital (30) already anticipates that alternative or complementary mechanisms may need to be developed, and this makes that anticipation operative.
Article 10(3) *Member State revenues*	Member States shall use at least 50% of those revenues […] for one or more of the following priority purposes: […] (i) to support the development of lead markets for low-carbon and circular products […]; (j) to finance research and development necessary for any of the purposes in points (a) to (h). Notwithstanding the previous subparagraph, Member States may use the remainder of those revenues […] for the following purposes: (a) permanent carbon removal methods, such as direct air capture and storage; […]	[…] (i) to support the development of lead markets for low-carbon and circular products […]; ***(j) permanent carbon removal methods certified under Regulation (EU) 2024/3012 of the European Parliament and of the Council;*** ~~(j)~~ ***(k)*** to finance research and development necessary for any of the purposes in points (a) to ~~(h)~~ ***(j)***. Notwithstanding the previous subparagraph […] ~~(a) permanent carbon removal methods, such as direct air capture and storage;~~ […]	Permanent carbon removal currently sits in the discretionary tier, which Member States may fund from whatever remains after the mandatory 50%. Moving it into the priority list creates a national implementation route running in parallel to central procurement, and allows Member States to build domestic capacity and their own removal strategies. This matters most for Member States whose geological storage is limited and whose removal capacity therefore depends on a broad method portfolio. The cross-reference in the research and development point appears to contain a drafting error in the proposal, which this amendment also corrects.
★ PRIORITY **Article 10cc(1)** *IDB: mandate*	1. An instrument to support the scaling up and deployment of the technologies, processes and techniques to decarbonise industries (the "Industrial Decarbonisation Bank") is established starting from 2028. It shall accelerate industrial decarbonisation, including electrification, within the Union through supporting capital investment […] and operational expenditure for emission	1. […] It shall accelerate industrial decarbonisation, including electrification ***and permanent carbon removal***, within the Union through supporting capital investment […] and operational expenditure for emission reductions or removals in stationary installations carrying out or substituting industrial production processes referred to in Annex I of this Directive, including in installations for the	As drafted, Bank support reaches removals only where they occur at an Annex I installation. Most prospective removal supply is generated by standalone projects that are not Annex I installations and would therefore be excluded from the principal instrument available to close the price gap. Extending the mandate is the first of two changes needed to

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	reductions or removals in stationary installations carrying out or substituting industrial production processes referred to in Annex I of this Directive, including in installations for the incineration of waste.	incineration of waste, ***and in any installation or project generating permanent carbon removals certified under Regulation (EU) 2024/3012 of the European Parliament and of the Council***.	make Carbon Contracts for Difference available to removal projects, and on independent estimates would require around 10% of the Bank's budget.
★ PRIORITY **Articles 10cd(1) and 10ce(1), (3)** *IDB: Carbon Contracts for Difference*	10cd(1) Until 2030 […] the Commission shall support under the Industrial Decarbonisation Bank projects through allocating allowances based on a fixed carbon premium to eligible projects within the Union. […] 10ce(1) From 2031, the Commission shall use the revenues […] to support industrial decarbonisation projects within the Union through competitive bidding procedures awarding Carbon Contracts for Difference (CCfD) or carbon premia […] 10ce(3) […] The instrument shall operate with payments conditional on verified emission reductions in line with the relevant Terms and Conditions.	10cd(1) […] a fixed carbon premium to eligible projects within the Union***, including projects generating permanent carbon removals certified under Regulation (EU) 2024/3012***. […] 10ce(1) […] to support industrial decarbonisation projects ***and permanent carbon removal projects*** within the Union through competitive bidding procedures awarding Carbon Contracts for Difference (CCfD) or carbon premia […] 10ce(3) […] The instrument shall operate with payments conditional on verified emission reductions ***or on delivery of certified permanent carbon removal units*** in line with the relevant Terms and Conditions. ***Support awarded under this Article shall be complementary to, and shall not duplicate, purchases made under Article 9c.***	A Carbon Contract for Difference pays the difference between the cost of a removal and the prevailing allowance price, so support falls automatically as the gap narrows and ends when it closes. That makes it the instrument best matched to the removal price gap. Two barriers stand in the way as drafted: Phase 2 scope is limited to industrial decarbonisation projects, and payment is conditional on verified emission reductions, which a removed tonne cannot satisfy. Recital (60) already acknowledges that the Bank's activity can result in the generation of permanent carbon removals, while Recitals (61) and (62) define both instruments in terms of tonnes avoided or abated; conforming amendments to those recitals would follow. The complementarity clause prevents the same tonne being supported twice.

About DVNE

The Deutscher Verband für Negative Emissionen (DVNE) is the German industry association for carbon dioxide removal, representing 65+ member organisations across the full CDR-value chain. DVNE works for a regulatory framework in which permanent carbon removal can scale to the volumes required by Germany's 2045 target and the Union's 2050 objective. CDR complements, and does not substitute for, deep emissions reductions.

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