

The Netherlands, 1 June 2021

The case for a sustainable and effective carbon dioxide removal policy

Dear members of the Parliamentary Committee for Economic Affairs and Climate Change (EZK),

Thursday 10 June is the general consultation of your House committee. In this period, you are discussing the formation of a new coalition. The future of Dutch industry and climate policy is a critical issue there. We are a group of concerned organisations that have joined forces to draw your attention to the Netherlands' transition to a net-zero greenhouse gases (GHG) society in 2050. This path now requires us, together with our EU partners, to reduce carbon emissions by 55% rather than 40% in 2030. Meeting these goals means that we as society should use all the means at our disposal. In this context, we call on all political parties to supplement our current climate action toolbox with a sustainable national and European carbon dioxide removal (CDR) policy, in addition to introducing more ambitious emissions reductions goals.

We are a group of stakeholders representing key perspectives on technical CDR. The signatories include environmental organisations, CDR technologies, utilisation of the captured carbon, infrastructure operators and storage solutions providers. We believe that that such solutions currently receive insufficient political attention. The formation of a new government, the new EU climate goals of -55% and the new 2050 target offer a unique opportunity to promote CDR at the political and societal level. We urgently call on you to start working on implementing the six steps outlined below:

- 1) Acknowledge the need for CDR to limit global warming to 1.5°C.**
- 2) Introduce a target for removals additional and separate from the target for reductions.**
- 3) Set up clear definitions and boundary conditions for carbon accounting.**
- 4) Start a public discussion on how best to include CDR in the Dutch climate policy.**
- 5) Advocate at EU-level for the realisation of a distinct CDR policy.**
- 6) Create the right market conditions and unlock the jobs potential for CDR.**

These action points are further explained below.

Ad 1. Acknowledge the need for CDR to limit global warming to 1.5°.

We need emission reduction and removals if we are to achieve net-zero GHG emissions in 2050 and limit global warming to 1.5°. Our efforts towards 2030 must be a steppingstone to 2050. The recent report *'Bestemming Parijs: Wegwijzer voor klimaatkeuzes 2030, 2050'* offers various scenarios. This means increasing ambitions to avoid and reduce the GHG we are emitting today, as well as scaling up CDR capacity to extract the CO₂ that is already concentrated in the atmosphere. It should be

What is carbon removal?

Carbon removal, also known as negative emissions, can neutralise residual emissions from hard-to-abate sectors, such as cement or agriculture, and enable us to move beyond net-zero emissions after 2050. It is the process of removing CO₂ from the atmosphere, through natural and technical solutions, and permanently storing it in biomass, soil, deep underground in suitable geology, empty offshore gas fields or construction materials and other reliable uses, if supported by a robust and indisputable scientific Life-Cycle Analysis (LCA).

There are nature-based solutions, such as ecosystem restoration, reforestation and soil sequestration, and there are technical solutions, such as Bio-Carbon Capture and Storage (Bio-CCS), based on sustainable bio-based raw materials, and Direct Air Capture with permanent storage (DACs). A Waste-to-Energy plant can also apply CCS to achieve a combination of CO₂ reductions and CO₂ removals. As the captured CO₂ is a mixed stream of fossil and biogenic CO₂, the carbon removal potential is only related to the share of biogenic CO₂. DACs units can extract CO₂ from ambient air for permanent storage, thereby lowering its atmospheric concentration.

NOTE: THE LETTER WAS SENT IN DUTCH. THIS IS THE ORIGINAL TEXT

aligned with a robust and long-term policy for carbon transport and storage infrastructure in the Netherlands and Europe. This will enable us to be more ambitious in our climate change mitigation efforts today, generate jobs and growth, tackle any residual process emissions in 2050, and continue mitigating climate change after.

Ad 2. Introduce a target for removals additional to and separate from the target for reductions.

Differentiating between CO₂ reduction and CO₂ removal in a net-zero GHG policy is vitally important. In its Special Report '*Global Warming of 1.5°C*', the Intergovernmental Panel on Climate Change (IPCC) tells us that in most scenarios as of 2050 several Gigatons of CO₂ will need to be removed from the atmosphere to stabilise the concentration of GHG in the atmosphere if we are to halt global warming at 1.5°C. The real extent of CDR needed to balance out will depend on how much we manage to reduce the emissions in the meantime. This means that while avoiding and reducing GHG emissions is the priority, this should not prevent the introduction of CDR as an addition.

A separate political and legal target for removals can provide the basis for all else. We need formal definitions of what constitutes carbon removal, clarity on a separate target volume and timeframes, covering both nature-based and technology-based removal solutions. A robust CDR policy also requires clear and separate monitoring, reporting, and verification plans to guarantee the permanent sequestration of removed carbon. It should be based on reliable lifecycle emissions accounting protocols and complemented by a policy to incentivise early-stage technologies, development of storage solutions, and infrastructure to safely transport the carbon to storage and use sites.

Ad. 3: Set up clear definitions and boundary conditions for carbon accounting.

We need to get it right from the start. We need to agree a roadmap for the development of a transparent and accurate standard for removing CO₂ from the atmosphere. This is crucial to avoid potential loopholes and double counting in carbon accounting. Removals should not delay or substitute avoiding and reducing emissions or get mixed up in the carbon accounting; it is critical that what happens in the real world is accurately represented on paper.

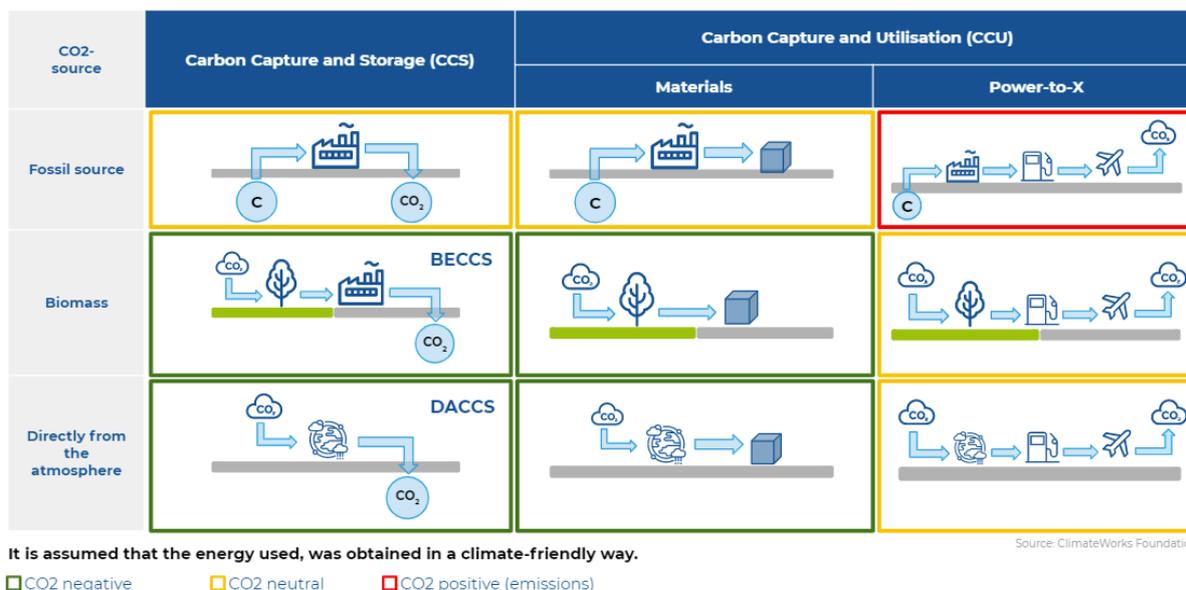
In the run up to 2030/2040, we need to accelerate mitigation by reducing emissions and removing CO₂. A robust framework for the accounting, management, and incentivisation of CDR is needed so that deployment can be trustworthy and scalable. This framework requires clear definitions and boundary conditions to guarantee real CO₂ removal from the atmosphere. We believe that carbon removal solutions must therefore be based on four principles:¹

- 1) CO₂ is actually removed from the atmosphere.
- 2) The removed CO₂ is permanently stored.
- 3) All emissions over the entire chain of removal and storage, including end-of-lifetime, are included in the LCA.
- 4) The total amount of CO₂ removed and stored is significantly greater than the CO₂ emitted during the lifecycle.

According to these four principles, the following four processes constitute carbon removal.

¹ Tanzer & Ramírez, 'When are negative emissions negative emissions?', 2019

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Ad. 4: Start a public discussion on how best to include CDR in the Dutch climate policy.

We have to launch this debate today to create the framework of policies to realise CDR solutions in the Netherlands at scale. Ensuring understanding and approval with the electorate and society will be a key to success. This debate should look at the distinct scientific merits of the solutions, the technological readiness, policy and incentive needs, such as separate eligibility under the SDE++, as well as commercial opportunities and market-making mechanisms. It should feed into existing EU-level discussions and consider all the removal solutions that can fulfil the abovementioned principles. We will need a portfolio of solutions to meet the challenge.

Ad. 5: Advocate at EU-level for the realisation of a distinct CDR policy.

We call on you to actively advocate at EU-level for a CDR policy that is distinct from emissions avoidance and reduction. The target of the Paris Climate Agreement is to “achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century”. This is acknowledged in the draft EU Climate Law. The European Union is already taking steps in this direction and countries such as Sweden, the USA and Switzerland have started developing a dedicated removals policy.² The Netherlands can do the same, in addition to existing policies on avoidance and reduction, and by identifying synergies with efforts to develop a European-wide CO₂ transport and storage infrastructure once the CO₂ is stored.

Ad. 6: Create the right market conditions and unlock the jobs potential for CDR.

The development of CDR capacity is a major business opportunity. With a proper policy and incentives, the Netherlands can leverage its deep industrial and agricultural know-how and innovation potential to unlock a market for technical and natural carbon removals, creating new jobs, attracting investment and enabling removals elsewhere, while not delaying or substituting emission reduction. CDR can build on the industrial innovation and infrastructure around Carbon Capture and Storage (CCS) and Carbon Capture and Utilisation (CCU) for technical carbon removals. For natural removals, the agricultural transformation can be harnessed to boost the sequestration of carbon in the soil. Alignment with existing incentive schemes should be promoted.

Conclusion

² See EU efforts to develop an EU-wide system for carbon removals certification by 2022-2023, as well as Horizon 2020 project “NEGEM” which seeks to quantify and assess the feasibility and the realistic potential of CDR.

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The time is now to develop the appropriate governance framework and invest in CDR solutions. We ask you as leading MPs to introduce the concept of CDR in your political discussions in the period ahead, starting with the negotiation of a new government agreement and upcoming climate and CCS-policy discussions and political debates.

Fortunately, momentum is already growing, for example in the voluntary carbon market.³ Once a robust accounting and verification framework is in place that prevents conflation of carbon removal and emissions reduction, carbon removal credits could play a key role in making the market for removals, in the absence of recognition of removals in stronger compliance markets such as the EU Emissions Trading System.

The fact is that CDR will be limited by supply rather than demand. We urgently need to develop a pipeline of projects and an accompanying governance framework for CDR to fulfil the role that is envisaged. This has to be taken into account as the Climate Agreement is expanded to align with the new EU target for 2030 of 55% GHG emission reduction on the path to net-zero in 2050. There is a window of opportunity to stake out a more pro-active position. We call on you to seize this opportunity.

We would be delighted to discuss these issues in more depth and remain available and enthusiastic to support you in your efforts.

This call to action is supported by the following organisations:



Vereniging Afvalbedrijven
Partner in de circulaire economie



³ The World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) are developing new Greenhouse Gas Protocol guidelines for how the private sector should account for removals in corporate greenhouse gas inventories.