BELLONA EUROPA

CONSULTATION RESPONSE

October 2023

France's CCUS Strategy

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FRANCE'S CCUS STRATEGY

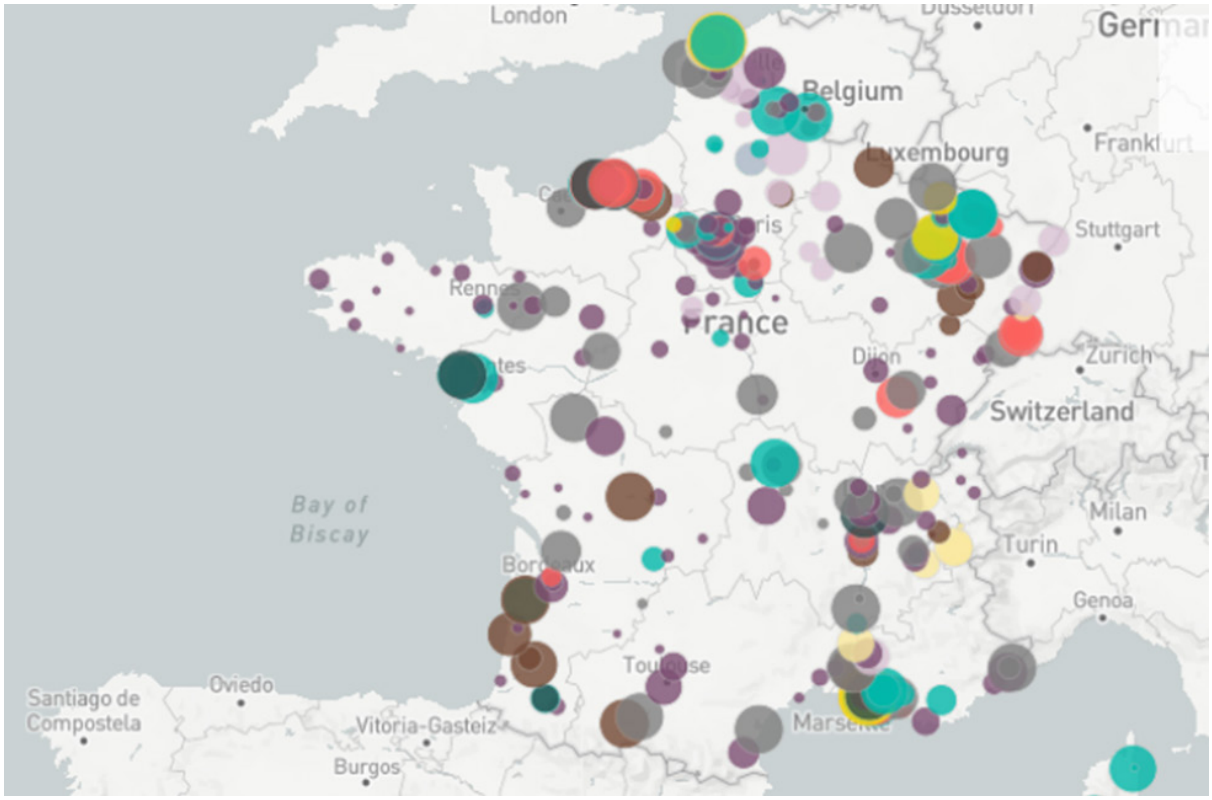
On the 23rd of June 2023 the French Prime Minister Elizabeth Borne presented France's Carbon Capture, Utilisation and Storage strategy during a meeting of the National Industry Council. Following this meeting the French government launched a consultation on it's National CCUS strategy.

Bellona applauds the French government of taking proactive steps towards the creation of a CO_2 value chain within its national borders. This is Bellona's input to the French government on its strategy. For more analysis and recommendations for European climate policies, see bellona.org/publications.

QUESTION 1: DOES THE CCUS DEPLOYMENT TRAJECTORY PRESENTED MEET THE NEEDS, IN TERMS OF GEOGRAPHICAL DISTRIBUTION AND TIMETABLE?

Bellona has long advocated a cluster approach to CO_2 capture and infrastructure for transport and storage. The French government's proposal foresees transport of CO_2 by ship from industrial hubs. This is a sensible strategy, and we urge that France takes an active role in ensuring equal treatment of transported CO_2 to storage through multiple transport modes.

However, the volumes of CO_2 capture envisaged in the strategy are small compared to the technically capturable CO_2 available in France. According to the CO_2 mapping service CaptureMap, point sources of more than 10 000 tonnes emit a total of more than 90 million tonnes of fossil and biogenic CO_2 in France per year.



Source and illlustration: Endrava CaptureMap

It is true that not all of this might be easy to capture, and some emitters might find other ways of mitigating emissions in the medium or long term. It nevertheless appears clear that the CCS potential in France is much greater than volumes envisaged by the strategy in the medium term (up to 15 million tonnes per year) and in 2050 (15-30 million tonnes per year). Unless there is another and better plan to decarbonise these emitters, they should be part of a nation-wide CCS scheme.

QUESTION 2: HOW CAN FRANCE CALIBRATE A CARBON CONTRACTS FOR DIFFERENCE (CCFD) MECHANISM TO RESPOND TO THE CHALLENGES POSED BY THE DECARBONIZATION OF INDUSTRY, AND IN PARTICULAR THE DEPLOYMENT OF CCUS?

France aims to eliminate greenhouse gases on national soil by 2050. However, the 1.5 C degree threshold could be breached already in the 2030s. A CCfD scheme should therefore avoid selecting only the "best" and cheapest CCS projects. Rather, the scheme should allow as many emitters as possible to reduce emissions. If the French state needs to prioritise funds, we refer to the Bellona and E3G CCS ladder – Assessing the value of CCS Applications in Europe.

Bellona recommends opening large CCfD calls that can co-fund many million tonnes p.a. of emissions reductions. With the planned CCfD call in 2024, France should aim to become a

European leader in CCS.

The Bellona report "Contract incentives for Industrial Carbon Capture" (2021) analyses policy elements such as: risk-sharing; capture rates; CCU; demonstration value; cost of abatement; contract components and duration; indexation to e.g. energy prices; Carbon Border Adjustment Mechanisms; markets for low-carbon products; and free allowances in the EU ETS. One key recommendation is that contract incentives should be based on the amount by which CO_2 emissions are reduced compared with continued operation without capture. They should not be based on amount of CO_2 captured, since this could distort incentives for efficiency and potentially distorts project choice. It is important to not incentivise CO_2 production by making it a driver of remuneration.

Public funds should help reduce investment risk in capture projects that aim to permanently store CO_2 underground. See also our response to question 5 (utilisation of CO_2) below.

QUESTION 3: HOW CAN FRANCE SUPPORT THE DEVELOPMENT OF TRANSPORT INFRASTRUCTURE FOR THE CAPTURED CARBON WHILE BALANCING THE RISK SHARING BETWEEN THE STATE, INFRASTRUCTURE OPERATORS AND INDUSTRIALISTS?

We agree with the French government's analysis of the challenges with "desynchronised" deployment of CO_2 capture, transport, and storage. There are already coordination efforts going on at the level of the European Union. France should participate in this coordination and take an active role at the European level to develop and kick-start a market for CCS.

Seen from the respective sides of the emitter and of the transport and storage operators, there is considerable uncertainty arising from such coordination failures and desynchronised development. Bellona therefore recommends that regions and state authorities also take an active role in coordinating between demand and supply of CO_2 capture, transport, and storage. The examples below show how some European countries are taking a role in developing CO_2 infrastructure.

The **Danish** state takes a 20 per cent stake in the CO_2 storage licenses they award to companies, in order for the state to also take part in the profits. On top of that Bellona believes that the state should play a role, because it views CO_2 infrastructure as a public good. It simply is too important to fail or be left entirely to commercial operators with the risk of creatingnatural monopolies or sustained artificially higher price levels and therefore negatively influencing competition.

In the **Netherlands**, the government participates in all large-scale CCS infrastructure projects such as Aramis, Porthos and CO_2Next through the involvement of state-owned companies Gasunie and Energie Beheer Nederland (EBN).

The **Norwegian** and **German** governments are jointly studying the possibility of a CO_2 pipeline from Germany to Norway.

In **Belgium**, the regional government of **Flanders** is drafting a CO_2 decree, that introduces the basic architecture of the carbon dioxide infrastructure in the Flemish Region and thus sets out the parameters within which the CC(U)S market will operate.

QUESTION 4: ACCORDING TO YOU UNDER WHAT CONDITIONS CAN THE DEPLOYMENT OF CO_2 STORAGE ON THE NATIONAL TERRITORY BE CONSIDERED?

Bellona encourages all countries to map and explore and use their national CO_2 storage potential. Development of CO_2 storage in France would contribute to the strategic build-up of an EU-wide market and network for CO_2.

For the short to medium term offtake of CO_2 from French emitters, France should make agreements with countries that plan to have CO_2 storage infrastructure available before 2030. These include Netherlands, Italy, Denmark, Norway, and the United Kingdom.

QUESTION 5: IN YOUR OPINION, WHAT ROLE SHOULD THE VALORIZATION OF CO_2 PLAY? WHAT TYPE OF USES OF CO_2 SHOULD WE PRIORITISE?

Public policy should *not* provide support mechanisms for CCU, for the following reasons:

- The purpose of climate policy is to stop CO_2 from entering the atmosphere. The CO_2 in products (e.g. fuels, plastics, cigarette paper) is usually emitted during the use phase of the product or at the end of its life. See also Bellona's Net Zero Compatibility Test.
- Many CCU applications require vast amounts of electricity, which must be renewable to ensure a beneficial climate impact. At the same time, the build-out of grids and renewable electricity generation is still too slow in Europe. CCU renewable electricity consumption is therefore likely to compete with and delay direct and carbon-free electrification of heating, industry, and the transport sector. This risk is similar to the concerns Bellona has raised about a premature scale-up of hydrogen production based on renewable electricity.
- Because of unclear system boundaries and a wide variety of potential products with varying lifecycles, it is often difficult to identify and verify all the resource inputs and CO_2 emissions caused by the CCU process. That makes it difficult to create

standardised incentives for CCU. The heterogeneity and complexity of the products creates additional greenwashing risks.

- The French government intends to prioritise biogenic CO_2 for the use of e-fuels. Bellona recommends that the government prioritise permanent, geological storage also of biogenic CO_2, since this is a more resource efficient way of reducing total emissions.
- A subsidy of synthetic fuels might delay carbon free solutions (hydrogen, batteries, ammonia) in sectors such as short-distance aviation and shipping. For any synthetic fuel, the use should be very targeted, and their GHG assessment should always include the energy inputs and the source of CO_2.
- There is already a commercial market for captured CO_2 in e.g., beverages and greenhouse production of vegetables. There is no need to subsidise it. CCU products which do not significantly reduce emissions should not be subsidised by funds intended for climate action.
- Some CCU applications such as mineralisation might have climate benefits. But the funding and attention of public policy should go to CCS, since this is a scalable, verifiable, and realistic way of reducing emissions fast.

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Bellona Europa is an independent, non-profit organisation that meets environmental and climate challenges head-on. We are result-oriented and have a comprehensive and cross-sectoral approach to assess the economics, climate impacts and technical feasibility of necessary climate solutions. To do this, we work with civil society, academia, governments and polluting industries.