

Feedback to Net Zero Industry Act proposal

We welcome the recognition of Carbon Capture and Storage to achieve the EU's Green Deal, and we recognise the proposed 50 Mt target for available CO₂ storage injection capacity by 2030 as a clear commitment from policy makers to develop and implement the needed frameworks at EU and Member State levels which enable and support the establishment of CCS value chains in Europe.

IOGP looks forward to contributing to ensure that the achievement of this objective is framed in the NZIA in a manner that is objectively achievable, and that the regulatory and investment conditions are put in place to meet it.

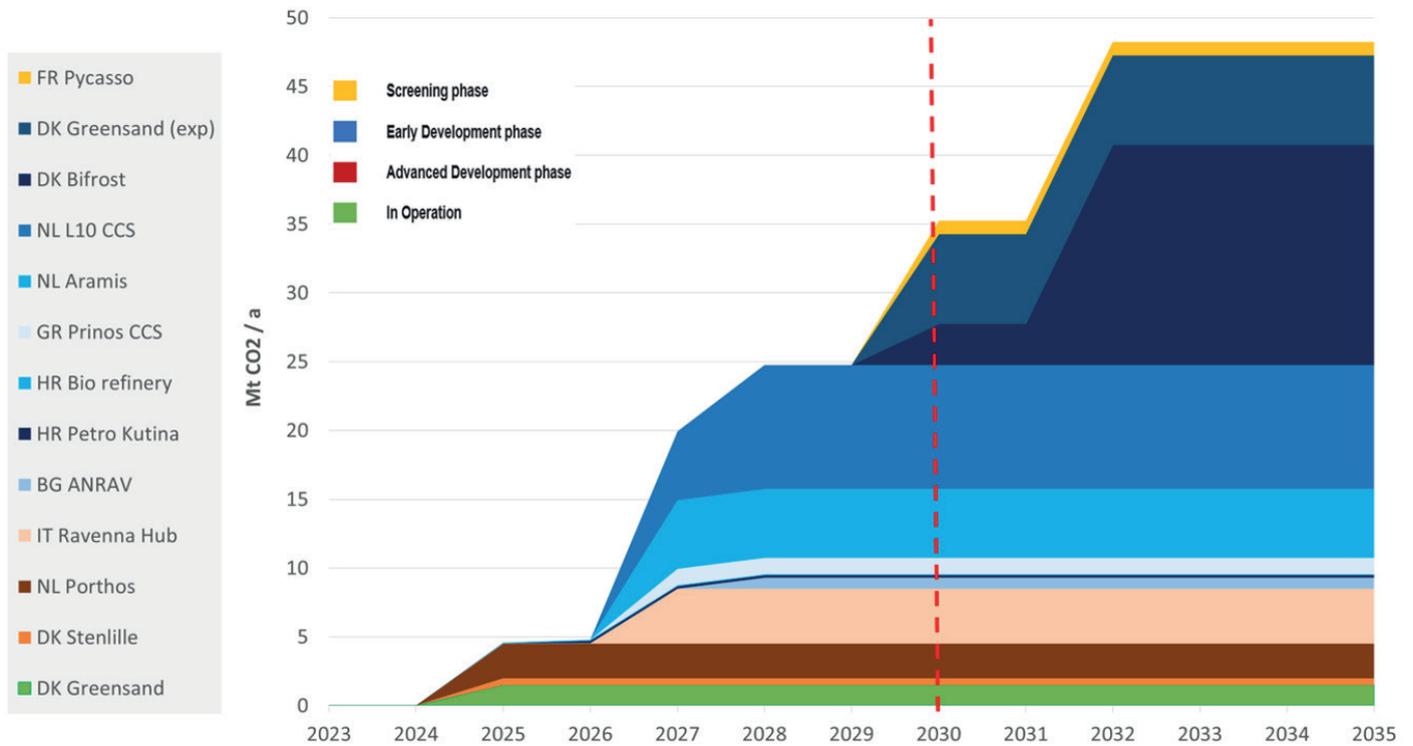
General introductory views

IOGP Europe is encouraged to see that the NZIA recognizes the role of Carbon Capture and Storage (CCS) as a key enabler of sustainable competitiveness. We welcome the possibility for CCS projects to be recognized by Member States as Net-Zero Strategic Projects. We are ready to work with EU institutions to establish the necessary measures and framework so that CCS deployment can accelerate across Europe and meet the ambition laid down by the Commission.

However, while the objective has the potential to trigger and accelerate the development of CCS value chains across Europe, IOGP notes that any such legal obligation to invest must be objectively achievable and reasonable. Even if all known projects in the EU would be operational by 2030 only 35 MtCO₂/pa could be made available to the market. Furthermore, achieving 50 MT of storage in the EU by 2030 will be dependent on many factors outside the control of the investor in the project - notably licenses and authorisations given by Member State's national and local authorities, as well as geological factors - that may in some cases make it objectively impossible to complete certain projects by 2030.

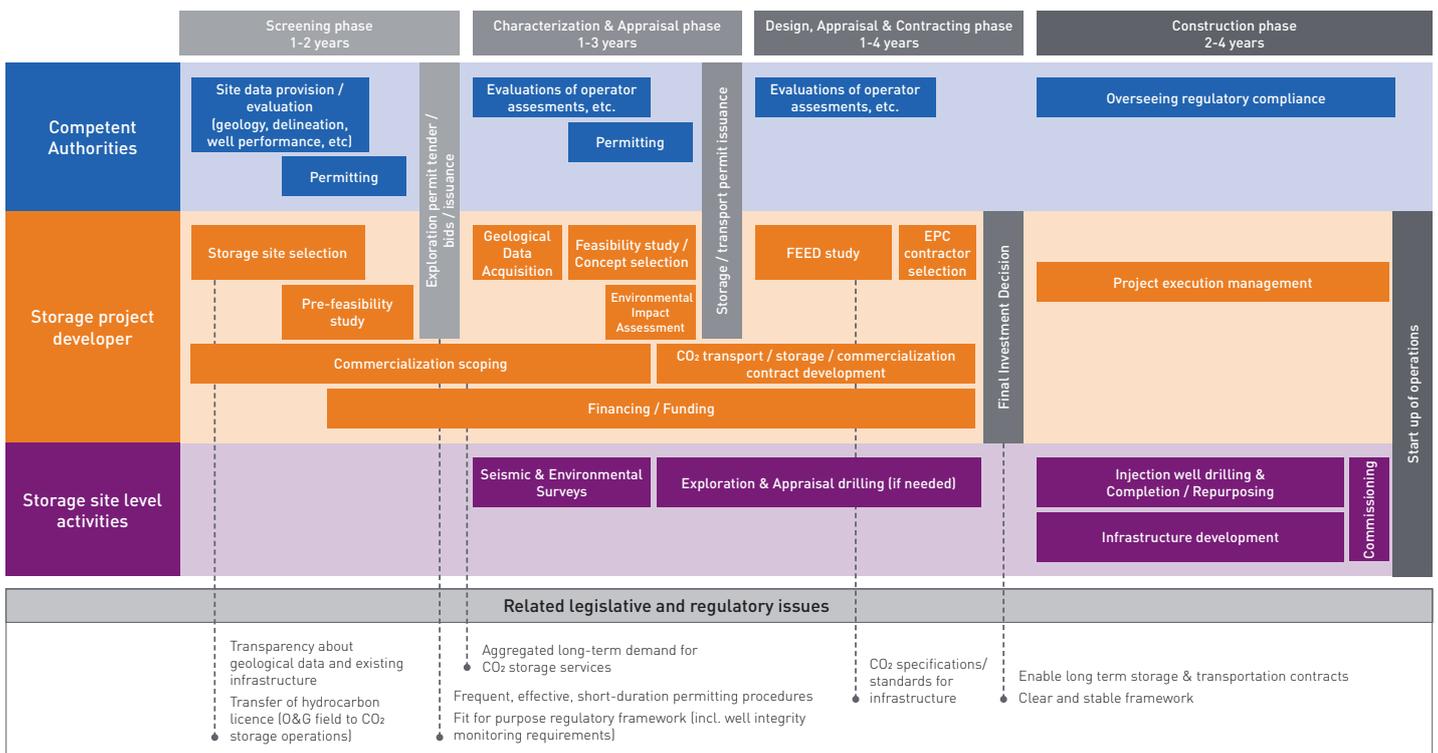
While several storage projects are known in the EU today with an indicative start-up by 2030, only two of them have been authorized under the EU's CCS Directive 2009/31, with an aggregated planned CO₂ injection capacity of 3.8 MtCO₂ p.a. by 2030. Most projects are in very early screening phase and even if they were to receive needed permits and funding within the next few years, it will depend on multiple external factors for them to become operational by 2030.

The graph below shows the possible build-up of storage injection capacity of all currently known CO₂ storage projects in the EU, demonstrating that if the 2030 target is to be met, very significant acceleration of planning, licensing and other framework conditions outside the control of project investors will be required.



Injection capacity build-up of all known planned CO₂ storage projects in the EU (Source: IOGP Europe)

CO₂ storage developments are complex projects, and their implementation depends on many factors. Recent experience shows that they can take more than 10 years to complete, even if all project phases are managed within minimum periods. Implementing projects in less than 5 years from project inception to injection start-up is not achievable (see graph on CO₂ storage project development phases and related legislative and regulatory issues below).



CO₂ storage project development phases and related legislative and regulatory issues (Source: IOGP Europe)

Mandating hydrocarbon license holders to make storage capacity available will not actually reduce emissions. For CO₂ to be effectively captured, transported, processed, and permanently stored, more policy support is needed to ensure that all entities along the CCS value chains have viable and sustainable business cases with signed agreements underpinning investments and defining their locations, capacities, and timing. **Establishing stranded CO₂ storage assets across Europe would neither benefit European industry nor the climate.**

Views related to CCS as strategic net-zero technologies

We welcome that the NZIA defines carbon capture and storage technologies as net-zero technologies, and the possibility for CCS (manufacturing) technology projects to be recognized by Member States as net-zero strategic projects. We welcome that such projects shall (i) benefit from a priority status with regard to authorizations and permits under national and EU laws (including under the EIA Directive), with clear duration limits, and (ii) can seek advice from the Net-Zero Europe Platform on financing including with regard to sources from the EIB, EBRD, Member State instruments, and EU programs.

However, further discussion is needed on how the multiple possible funding sources (and related cash-flows) for CCS project developers can be better streamlined and how needed increased/additional funding can be ensured to de-risk revenue streams of entities investing along the CCS value chains. Various types of business models can be used to structure a commercial mechanism including front-loaded funding to participants along the value chain. Front-loaded (advanced) funding can kick-start investments and be gradually repaid once the revenue stream is established. Other mechanisms such as Contracts for Difference could be used to provide stable and dependable business models.

The NZIA should simplify and accelerate funding application processes (e.g. for Innovation Fund support) for already existing projects, and should ensure the necessary regulatory framework and funding, where needed, to CCS technologies, particularly, for example to kick-start capture and transport of CO₂ at scale compatible with the 2030 storage objective.

Member States should ensure that when designating a CCS project as 'net-zero strategic project', the scope of the permitting includes exploration permits, e.g. in Saline Aquifers.

Views related to the CO₂ injection capacity objective and the industry contribution obligation

Achieving the EU's 50 MtCO₂ storage injection capacity **requires the development and implementation of effective supporting frameworks at EU and Member State levels** within the next 1-2 years; these frameworks should include elements such as:

- Where prohibited, Member States (MSs) should rapidly reconsider allowing CO₂ storage on their onshore and offshore territory.
- Member States should be required to organise exploration licensing/bidding rounds and support exploration drilling, including for Saline Aquifers (which typically have much higher storage capacities and for example are used as part of the Northern Lights CCS project). Exploration activities for Saline Aquifers should also qualify as net-zero strategic projects, with corresponding acceleration of permitting process durations.
- Fit-for-purpose processes need to be established which ensure coordinated and economic investment planning along the full value chain, and which determine locations of (multimodal) infrastructure, their capacities, and their timing. Such processes can build on experiences from other industries including e.g. Ten Year Network Development Plans (TYNDPs) coordinated by ENTSOG, open seasons for transportation capacities, tenders for wind power capacities, or auctions for hydrogen capacities.
- Member States shall take the necessary measures to facilitate and incentivize investments into capture and transport of CO₂ commensurate with the 2030 deadline for CO₂ storage projects. Such measures may include incentivizing emitters to capture emissions, funding support for investors into needed infrastructure to transport CO₂ to the storage site, and funding of CO₂ storage projects.
- Member States should recognize as net-zero strategic projects not only CO₂ storage projects, but also capture projects and all those infrastructure projects necessary to transport the captured CO₂ to storage sites. This would ensure integrated planning and construction of CCS value chains. In this context, Member States should be prepared to take on cross-value chain risks to avoid stranded assets.

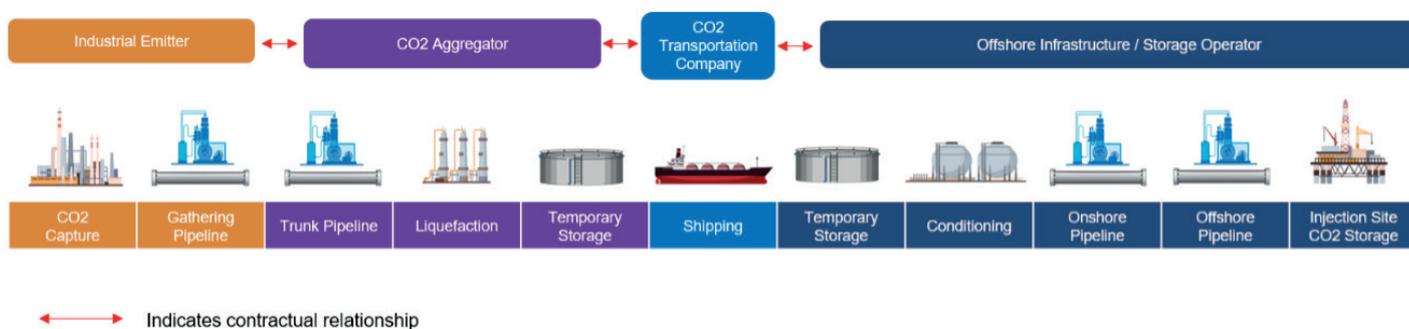
In addition, and as being addressed by the work organised under the EU CCUS Forum, a comprehensive framework is needed including:

- standards for the capture, transport, and storage of CO₂;
- the fit-for-purpose regulatory framework applicable to CO₂ transportation;
- CO₂ accounting rules, especially in cases of cross-border CO₂ value chains;
- liability terms, especially regarding post closure responsibilities; and
- rules on the transfer of responsibilities between the multiple companies operating along the value chains.

IOGP Europe suggests that the storage objective and the contribution obligations are framed in a manner that takes into account objective constraints outside the control of companies. This should include the regulatory, commercial and technical deliverables required for companies to take an objectively valid and final investment decisions (FID) for CCS projects. This is critical to ensure that capital is channelled to the most cost-effective injection sites and avoids stranded assets or suboptimal injection sites which do not have any material impact on the EU's net zero objectives.

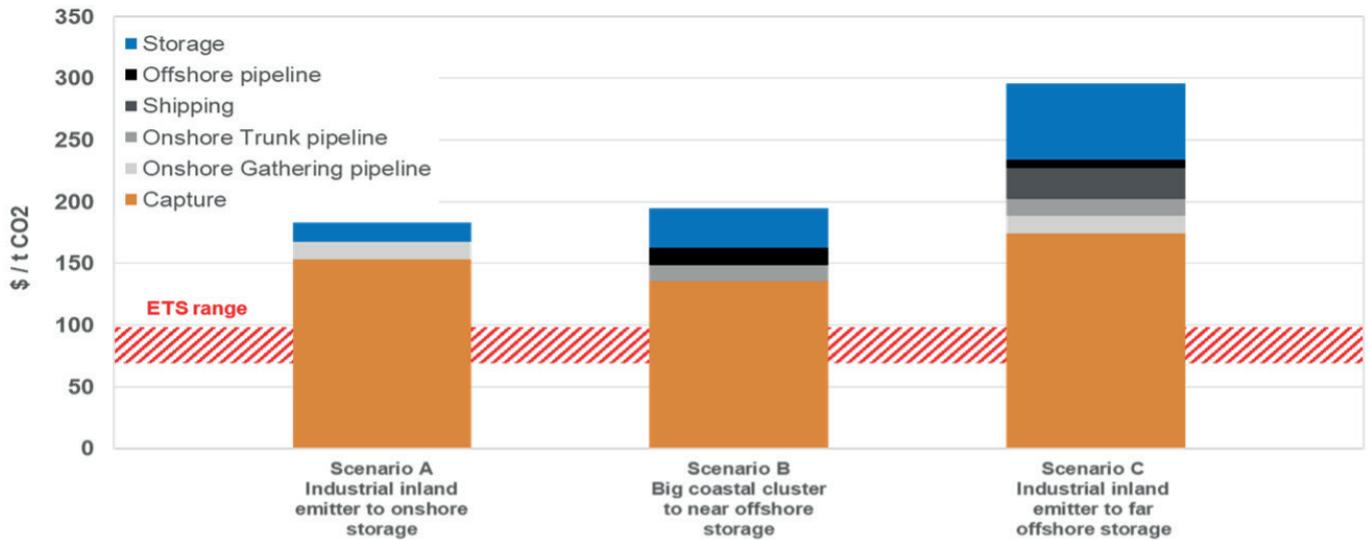
Views related to the aggregated financial incentives and/or funding needed to build sustainable business cases for all entities along CCS value chains

As stated before, CCS projects are complex and involve multiple entities along the value chains (see graph below showing indicatively a CCS value chain from the capturing of emissions to the storage of CO₂). All these entities typically need to have sustainable business cases before taking investment decisions and complex long-term commercial arrangements need to be negotiated and concluded along the value chain to manage and allocate the commercial risks and rewards.



CCS value chain from onshore emitter to offshore CO₂ storage (Source: IOGP Europe)

While CCS is a relatively low-cost abatement technology (especially for large scale - abatements), data from the CCUS database of the consultant Rystad Energy show that the aggregated capital and operational cost of CCS value chains require tariffs in the order of 150 to 300 EUR/t CO₂ to underpin the establishment of sustainable full CCS value chains from capture to storage. This data challenges the unrealistic data included in the Commission's Staff Working Document.



Scenario A: Iron industry (1 Mtpa) - Onshore pipeline (50 km) - Onshore depleted Oil & Gas field
Scenario B: Refining industry (5 Mtpa) - Onshore pipeline (50 km), Offshore Pipeline (200 km) - Offshore depleted Oil & Gas field
Scenario C: Cement industry (1 Mtpa) - Onshore gathering pipeline (50 km), Onshore trunk pipeline (200km), shipping (1000 km), Offshore pipeline (100 km) - Offshore saline aquifer

Three scenarios of levelized cost of CCS value chains in Europe (Source: Rystad Energy database Mai 2023)

Views regarding the nature of the O&G producer contribution obligation

While we recognize that targets are widely used tools to drive strategic objectives at company or at policy level (such as the EU climate policy binding targets for certain energies and sectors), we rather support technology open solutions, allowing market participants and different technologies to compete on a level playing field. In this context, we are generally not supportive of the CO₂ storage objective to be expanded on other segments of the CCS value chain or extended beyond 2030.

The proposed storage contribution essentially obliges about a dozen of oil and gas license holders (who produced only 10-15% of the EU's natural gas consumption in 2020 - 2023) to make investments (or enter into corresponding commitments) in the magnitude of 20 billion Euros by 2030. Establishing such an obligation through an EU Regulation for only a few companies may therefore be discriminatory in nature, and contrary to the principle of proportionality and constitute an infringement of property rights. The producer contribution concept also creates a non-level playing field between producers in the EU and those outside the EU; this is somewhat in conflict with the NZIA's objectives.

Views related to data transparency requirements

The obligation for Member States to publish "areas where CO₂ storage sites can be permitted" is generally welcomed but data should rather be made available to national authorities in line with existing national legislations. Furthermore, data transparency should not rely only on the obligation for oil and gas license holding companies to make data available a European Storage Atlas (as recommended by the SET-PLAN TWG9 CCS and CCU Implementation Plan) would support the identification of CO₂ storage sites.

We also point out that, in most cases, existing geological data is privately owned and the publication of the data may require agreement with the private entities. Therefore, making available all geological data relating to decommissioned production sites gives rise to confidentiality issues. Obligations to provide data should relate to raw data not derived data, and any data provided should be with no responsibility for the provider about the quality of the data.

IOGP Europe points out that the largest potential storage capacities are in new Saline Aquifers (which typically need to be explored for) and not only in depleted oil & gas fields as proposed in the NZIA.



Other comments

- The NZIA should find pragmatic solutions for EU entities to effectively and timely access the vast CO₂ storage potential in Norway/the EEA, and the UK. This would significantly increase the possibility for the 50 Mt storage injection capacity objective to be achieved in a timely manner.
- We note that the proposed NZIA is accompanied by a Staff Working Document ('Investment needs assessment and funding availabilities to strengthen EU's net-zero technology manufacturing capacity') only and that no impact assessment was conducted. Nonetheless, given the important provisions included in the proposal and especially the CO₂ storage contribution obligation we stress the general need for and value of comprehensive Impact Assessments which includes the relevant legal considerations taken into account by the Commission's services when developing the proposed Regulation.

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