Research Square

Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

Can the EU Oblige Oil and Gas Producers to build CO2 injection capacity? Article 23 of the Net-Zero Industry Act and the Pending Actions before the General Court

Reza Maddahi

reza.maddahi@uef.fi

Research Article

Keywords: NZIA, CO2 injection capacity, offshore CO2 storage, Article 114 TFEU, Proportionality, Charter of Fundamental Rights, General Court

Posted Date: November 4th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-11399515/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License

Additional Declarations: No competing interests reported.

Can the EU Oblige Oil and Gas Producers to build CO2 injection capacity? Article 23 of the Net-Zero Industry Act and the Pending Actions before the General Court

Abstract

The Net Zero Industry Act (NZIA) requires 44 oil and gas producers to provide 50 million tonnes of annual CO2 injection capacity at permitted storage sites by 2030. Requiring private companies to build infrastructure for a market (that some believe does not yet exist) is a new phenomenon in European Union (EU) law. Not surprisingly, some of those obligated companies brought fifteen actions against the Act before the EU General Court in October 2025. The article addresses four main lines of attack: the legal basis, proportionality, business freedom and property rights, and equal treatment. The article argues that the Achilles' heel of the Act is the mismatch between a fixed 2030 deadline and the time needed to permit and build offshore injection capacity. The court may annul part of the Act, not Article 23 entirely. The outcome may show how far the EU can rely on the private sector to provide infrastructure for carbon management and carbon-neutral pathways.

Keywords: NZIA, CO2 injection capacity, offshore CO2 storage, Article 114 TFEU, Proportionality, Charter of Fundamental Rights, General Court

Introduction

Carbon Capture and Storage is increasingly being seen as a tool for tackling climate change, especially in hard-to-abate sectors such as cement, steel, chemicals, and other sectors that are hard to electrify.[1] Deployment has lagged behind deployment plans globally and in Europe.[2] permitting and liability regime for offshore CCS has been regulated in the EU by the CCS Directive of 2009.[3] Later, CCS has been treated as part of a wider policy of industrial carbon management, besides carbon capture and utilization CCU and carbon dioxide removal CDR.

The laws applicable to CCS developed and remained fragmented and, in some aspects, uncertain. This fragmentation partly reflects the nature of CCS. CCS includes several technologies, including capturing CO2, transporting it via ships or pipelines, most of the time to a second country, for injection into storage sites, which are usually located in the subseabed and subject to international or regional marine agreements. The EU Emissions Trading System (ETS)[4] raises further legal controversies over the treatment of CCS and newer versions, such as mineralization.

CCS can help the EU reach its 2050 climate neutrality goal. To do so, the EU must close the deployment gap.[5] So far, only nine projects are operational in the EU, with 3.3 million tonnes of CO2

---

[1] IPCC, *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (Core Writing Team, H Lee and J Romero eds, IPCC 2023) <https://doi.org/10.59327/IPCC/AR6-9789291691647>.

[2] IPCC, *Special Report on Carbon Dioxide Capture and Storage* (Cambridge University Press 2005); Mai Bui and Niall Mac Dowell (eds), *Carbon Capture and Storage* (Royal Society of Chemistry 2020); Francesco Dalla Longa, Remko Detz and Bob van der Zwaan, 'Integrated Assessment Projections for the Impact of Innovation on CCS Deployment in Europe' (2020) 103 International Journal of Greenhouse Gas Control 103133 <https://doi.org/10.1016/j.ijggc.2020.103133>.

[3] Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide [2009] OJ L140/114 (CCS Directive).

[4] Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC [2003] OJ L275/32 (EU ETS Directive).

[5] Filippo P Fantozzi and others, 'National Energy and Climate Plans: The Implementation Gap. A Benchmark Assessment of Draft NECPs in Light of EU Legal Obligations' (Climate Litigation Network 2024) <https://climatelitigationnetwork.org/wp-content/uploads/2024.06.06-CLN-Report-

capture capacity.[6] Scholars say legal, economic, social, and political uncertainties at the EU and national levels have kept CCS far below the necessary level.[7]

From a technical perspective, CCS is at a certain level of maturity. Capture technology has dramatically improved in recent years.[8] EU has a massive storage capacity, mainly offshore in the North Sea and the Baltic Sea.[9] However, coordinating the interconnected stages of CCS remains a challenge.[10] Investment certainty at each step depends on the availability of other stages.[11] Wise storage site developers should not be expected to drill expensive storage sites without being certain about the availability of captured CO2.[12] To break this chicken-and-egg pattern, some countries moved towards planned infrastructure and shared hubs and clusters;[13] for example, Norway,[14] Australia,[15] the Netherlands,[16] and the United States.[17] The EU is now turning its back on the market and following a similar path.

To support CCS deployment in the EU, the EU has amended or adopted new regulations in line with the European Green Deal.[18] The most ambitious step so far was adopting NZIA, which directly obliges oil- and gas-producing companies to develop a key part of the CCS chain: storage sites.[19] NZIA aims to use the single market's scale to support clean technologies in Europe and reduce strategic import dependence. CCS is one of the strategic technologies the Act aims to support.[20]

Benchmarking-Assessment-NECPs.pdf> accessed 11 May 2026; Grischa Perino and others, 'Closing the Implementation Gap: Obstacles in Reaching Net-Zero Pledges in the EU and Germany' (2022) 10 Politics and Governance 213 <https://doi.org/10.17645/pag.v10i3.5326>.

[6] 'The State of CCS Projects Worldwide' (*AAPG Explorer*) <https://www.aapg.org/news-and-media/explorer/the-state-of-ccs-projects-worldwide/> accessed 23 June 2026.

[7] Katariina Buure, 'The Eternal Promise of Carbon Capture, Utilisation and Storage: Is There a Business Case?' (2025) 127 Energy Research & Social Science 104308 <https://doi.org/10.1016/j.erss.2025.104308>; Sara Budinis and others, 'An Assessment of CCS Costs, Barriers and Potential' (2018) 22 Energy Strategy Reviews 61 <https://doi.org/10.1016/j.esr.2018.08.003>; MJ Mace, Chris Hendriks and Rogier Coenraads, 'Regulatory Challenges to the Implementation of Carbon Capture and Geological Storage within the European Union under EU and International Law' (2007) 1 International Journal of Greenhouse Gas Control 253 <https://doi.org/10.1016/S1750-5836(07)00028-X>.

[8] Jeannie ZY Tan and others, 'Chemistry Advances Driving Industrial Carbon Capture Technologies' (2025) 9 Nature Reviews Chemistry 656 <https://doi.org/10.1038/s41570-025-00733-3>; Bolisetty Sreenivasulu and others, 'Development Trends in Porous Adsorbents for Carbon Capture' (2015) 49 Environmental Science & Technology 12641 <https://doi.org/10.1021/acs.est.5b03149>; Christiano B Peres and others, 'Advances in Carbon Capture and Use (CCU) Technologies: A Comprehensive Review and CO2 Mitigation Potential Analysis' (2022) 4 Clean Technologies 1193 <https://doi.org/10.3390/cleantechnol4040073>.

[9] Thomas Vangkilde-Pedersen and others, 'Assessing European Capacity for Geological Storage of Carbon Dioxide–the EU GeoCapacity Project' (2009) 1 Energy Procedia 2663 <https://doi.org/10.1016/j.egypro.2009.02.034>; Panagiotis Karvounis and Martin J Blunt, 'Assessment of CO2 Geological Storage Capacity of Saline Aquifers under the North Sea' (2021) 111 International Journal of Greenhouse Gas Control 103463 <https://doi.org/10.1016/j.ijggc.2021.103463>.

[10] Benjamin Mitterrutzner and others, 'Scaling Carbon Capture and Storage (CCS) to Gigaton Capacity: A Multi-Dimensional and Critical Review' (2026) 149 International Journal of Greenhouse Gas Control 104531, 11 <https://doi.org/10.1016/j.ijggc.2025.104531>.

[11] Bassam Fattouh, Hasan Muslemani and Raeid Jewad, 'Capture Carbon, Capture Value: An Overview of CCS Business Models' (OIES Paper CM08, Oxford Institute for Energy Studies 2024) <https://www.oxfordenergy.org/publications/capture-carbon-capture-value-an-overview-of-ccs-business-models/> accessed 14 October 2026.

[12] Julius Wesche and Markus Steen, 'What Does It Take for Large-Scale CCS Projects to Reach Final Investment Decision? Evidence from Porthos in the Netherlands' (2026) 151 International Journal of Greenhouse Gas Control 104590, 2 <https://doi.org/10.1016/j.ijggc.2026.104590>.

[13] Rui Wang, 'Status and Perspectives on CCUS Clusters and Hubs' (2024) 4 Unconventional Resources 100065 <https://doi.org/10.1016/j.uncres.2023.100065>; Laisa Branco de Almeida, 'The International Law of Energy of Offshore Carbon Capture and Storage: The Rotterdam Nucleus Project Case Study' (2022) 24 Environmental Law Review 10 <https://doi.org/10.1177/14614529221080037>; Kaiyin Zhao and others, 'Recent Advances and Future Perspectives in Carbon Capture, Transportation, Utilization, and Storage (CCTUS) Technologies: A Comprehensive Review' (2023) 351 Fuel 128913, 3 <https://doi.org/10.1016/j.fuel.2023.128913>.

[14] Jørgen Wettestad, Tor Håkon Jackson Inderberg and Lars H Gulbrandsen, 'Exploring Paths and Innovation in Norwegian Carbon Capture and Storage Policy' (2024) 34 Environmental Policy and Governance 125 <https://doi.org/10.1002/eet.2068>.

[15] Klaas van Alphen, Marko P Hekkert and Wim C Turkenburg, 'Comparing the Development and Deployment of Carbon Capture and Storage Technologies in Norway, the Netherlands, Australia, Canada and the United States–An Innovation System Perspective' (2009) 1 Energy Procedia 4591 <https://doi.org/10.1016/j.egypro.2009.02.279>.

[16] ibid.

[17] Kim Talus and Tade Oyewunmi, 'International Competition over Energy Investments on the Path towards Net-Zero: A Comparative Study of EU and US Support for CCUS' in Kim Talus (ed), *A Research Agenda for International Energy Law* (Edward Elgar 2024) 85 <https://doi.org/10.4337/9781803924960.00010>.

[18] Commission, 'The European Green Deal' (Communication) COM(2019) 640 final.

[19] Regulation (EU) 2024/1735 of the European Parliament and of the Council of 13 June 2024 on establishing a framework of measures for strengthening Europe's net-zero technology manufacturing ecosystem and amending Regulation (EU) 2018/1724 [2024] OJ L2024/1735 (NZIA).

[20] ibid art 4(1)(g).

Article 20 sets a Union target of at least 50 million tonnes of annual CO_2 injection capacity by 2030.[21] Article 23 of the Act divides responsibility for providing CO_2 injection capacity among 44 entities based on their share of EU crude oil and natural gas production between 2020 and 2023. Later in 2025, the Commission clearly named those 44 entities and set a 2030 deadline.[22]

Some of these entities objected to the Commission's Act. In October 2025, fifteen actions were brought to the General Court of the European Union against the NZIA, specifically Article 23.[23] Because private entities rarely challenge EU legislative acts, they indirectly invoked Article 23 by pleading illegality under Article 277 of the Treaty on the Functioning of the European Union (TFEU).[24] Their pleas are based on a wide range of grounds, such as the Treaties and the Charter of Fundamental Rights[25] and the general principles of EU law.

This article analyses the possible fate of Article 23 in light of these cases. The pleas of the entities are being grouped in this article into four main lines, namely the legal basis, proportionality, the freedom to conduct business and the right to property, and equal treatment. Each line is then tested against the Treaties and the case law of the Court of Justice. Unfortunately, the pleadings are not fully available to the public, so the analysis is based on summaries of the pleadings. Similarly, the Commission's defense statements are not public, so we reconstruct its likely arguments from the Act, its recitals, and the case law. We argue that three claims- legal basis, fundamental rights, and equal treatment- are hard to sustain. The 2030 deadline is the Act's Achilles' heel. Also, the obligation allocation method may lead to the annulment of part of the Act. The article also shows that, in practice, the obligation is to develop storage sites at sea; therefore, it depends on offshore permitting, CO_2 shipping, and international law of the sea.

Section 2 covers the development of EU law on CCS up to the adoption of NZIA. Section three elaborates on the CO2 injection capacity obligation and its maritime dimensions. Section 4 also addresses the actions and cases before the General Court and their procedural settings. Sections 5 to 8 deal with the four main lines of attack by entities, and section 9 concludes.

2 From the CCS Directive to the NZIA

The mitigation potential of CCS technologies has been recognized by international climate law for at least 2 decades. The first recognition happened when the IPCC published a special report on CCS[26]

---

[21] ibid art 20(1).
[22] Commission Decision (EU) 2025/1479 of 22 May 2025 specifying the pro rata contributions to the Union CO_2 injection capacity objective by 2030 from entities holding an authorisation as defined in Article 1, point 3, of Directive 94/22/EC of the European Parliament and of the Council [2025] OJ L2025/1479 (Decision 2025/1479).
[23] Case T-711/25 *OMV Petrom v Commission* (action brought on 15 October 2025) [2025] OJ C/2025/6634; Case T-712/25 *Black Sea Oil & Gas v Commission* (15 October 2025) [2025] OJ C/2025/6635; Case T-713/25 *Romgaz v Commission* (16 October 2025) [2025] OJ C/2025/6636; Case T-714/25 *ExxonMobil Producing Netherlands and Mobil Erdgas-Erdöl v Commission* (16 October 2025) [2025] OJ C/2025/6637; Case T-715/25 *ExxonMobil Producing Netherlands and Mobil Erdgas-Erdöl v Commission* (16 October 2025) [2025] OJ C/2025/6638; Case T-716/25 *BEB Erdgas und Erdöl and Oldenburgische Erdölgesellschaft v Commission* (16 October 2025) [2025] OJ C/2025/6639; Case T-717/25 *BEB Erdgas und Erdöl and Oldenburgische Erdölgesellschaft v Commission* (16 October 2025) [2025] OJ C/2025/6640; Case T-718/25 *Nederlandse Aardolie Maatschappij v Commission* (16 October 2025) [2025] OJ C/2025/6641; Case T-719/25 *Orlen v Commission* (17 October 2025) [2025] OJ C/2025/6642; Case T-720/25 *Orlen Petrobaltic v Commission* (17 October 2025) [2025] OJ C/2025/6643; Case T-723/25 *RockRose (NL) CS1 v Commission* (17 October 2025) [2025] OJ C/2025/6644; Case T-724/25 *TotalEnergies EP Danmark and Others v Commission* (17 October 2025) [2025] OJ C/2025/6645; Case T-725/25 *Shell Italia E&P v Commission* (17 October 2025) [2025] OJ C/2025/6646; Case T-726/25 *Vermilion Energy Netherlands and Others v Commission* (17 October 2025) [2025] OJ C/2025/6647; Case T-730/25 *Tenaz Energy Netherlands v Commission* (20 October 2025) [2025] OJ C/2025/6648. All fifteen cases were pending in October 2026. References to pleas in this article follow the numbering in these published summaries.
[24] Consolidated Version of the Treaty on the Functioning of the European Union [2016] OJ C202/47 (TFEU).
[25] Charter of Fundamental Rights of the European Union [2016] OJ C202/389 (Charter).
[26] IPCC, *Special Report on Carbon Dioxide Capture and Storage* (n 2).

in 2005, and later, the parties to the Kyoto Protocol[27] adopted modalities and procedures for CCS projects under the Clean Development Mechanism in 2011.[28] However, these were not enough to take CCS off the ground.

The adoption of the Paris Agreement[29] has given new life to CCS. The Paris Agreement's main text never mentioned CCS (unlike the Kyoto Protocol), but its goal of holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit it to 1.5°C,[30] and its aim of reaching a balance between emissions and removals in the second half of the century,[31] put CCS back on the list of mitigation options next to renewables, energy efficiency and carbon dioxide removals (CDRs). Under the bottom-up approach style of the agreement, which gives a huge freedom to parties to choose their mitigation activities options, some countries refer to CCS in their nationally determined contributions (NDCs), and several do so in the long-term low greenhouse gas emission development strategies that Article 4(19) of the Agreement invites them to communicate.

Climate scenarios agree that large-scale CCS is essential to achieving climate neutrality. For example, the International Energy Agency IEA in its net-zero scenario, calls for 1 gigatonne (Gt) of CO_2 to be captured in 2030 and about 6 Gt in 2050.[32] The Energy Transition Commission also predicts that capturing 7 to 10 Gt of CO_2 is essential by 2050.[33]

On the ground, reality falls far short of these numbers. Operational global capture capacity is 50 Mt per year, and announced projects for 2030 raise it to around 430 Mt.[34] Many of these projects' starts have already been postponed to 2035.[35]

Many pieces of EU legislation have been amended to increase legal certainty for CCS investors, including the EU ETS Directive. New guidelines have been published to cover other types of CCS, including four CCS Directive guidelines on regulating mineralization in geological storage sites. New legislation has also been adopted, such as NZIA, to cover parts of CCS chains (in this case, storage).

Specific regulation on CCS in the EU started with the EU CCS Directive in 2009. The directive focused on site selection, exploration and storage permits, monitoring, corrective measures, closure, and transferring responsibility to the State after closure.[36] Beyond these conservative regulations, CCS needed economic support. Therefore, the EU ETS complemented the directive by providing an

---

[27] Kyoto Protocol to the United Nations Framework Convention on Climate Change (adopted 11 December 1997, entered into force 16 February 2005) 2303 UNTS 162.
[28] Decision 10/CMP.7, 'Modalities and procedures for carbon dioxide capture and storage in geological formations as clean development mechanism project activities' (2011); Tim Dixon, Sean T McCoy and Ian Havercroft, 'Legal and Regulatory Developments on CCS' (2015) 40 International Journal of Greenhouse Gas Control 431 <https://doi.org/10.1016/j.ijggc.2015.05.024>.
[29] Paris Agreement (adopted 12 December 2015, entered into force 4 November 2016) 3156 UNTS 79; Decision 1/CP.21, 'Adoption of the Paris Agreement' (2015) UN Doc FCCC/CP/2015/10/Add.1.
[30] Paris Agreement (n 29) art 2(1)(a).
[31] ibid art 4(1).
[32] IEA, *Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach. 2023 Update* (IEA 2023) <https://www.iea.org/reports/net-zero-roadmap-a-global-pathway-to-keep-the-15-0c-goal-in-reach> accessed 14 October 2026.
[33] 'Carbon Capture, Utilisation & Storage in the Energy Transition: Vital but Limited' (Energy Transitions Commission 2022) <https://www.energy-transitions.org/wp-content/uploads/2022/08/ETC-CCUS-Report-V1.9.pdf> accessed 13 May 2026.
[34] IEA, 'CCUS Projects around the World Are Reaching New Milestones' (Commentary, 30 April 2025) <https://www.iea.org/commentaries/ccus-projects-around-the-world-are-reaching-new-milestones> accessed 14 October 2026.
[35] IEA, 'Policy and Financing Momentum Sustain CCUS Progress despite Setbacks' (Commentary, 27 March 2026) <https://www.iea.org/commentaries/policy-and-financing-momentum-sustain-ccus-progress-despite-setbacks> accessed 14 October 2026.
[36] CCS Directive (n 3).

economic incentive for CCS deployment. The emissions that were captured and stored in geological formations that were permitted by the directive were exempted from surrendering allowances.[37]

The mix of these two pieces of legislation seemed perfect on paper. One was supposed to ensure the projects were environmentally safe, and the other was supposed to support them economically. However, the opposite happened: for a decade, almost no storage permits were issued. The first storage permit was issued in 2013 for the P18-4 field off Rotterdam, and the next permits came in 2021 and 2022 for the Porthos project, which now covers both the P18-2 and P18-4 fields.[38] Among other factors, weak transboundary infrastructure, legal uncertainty over long-term liabilities, high project costs, and public opposition or probable unawareness are cited as the main reasons for failure.

In the EU, CCS has moved into broader climate and industrial policy. The European Climate Law[39] legalized the goal of climate neutrality by 2050. Later in 2024, the industrial carbon management strategy saw CCS as an essential tool for achieving the Union's 2040 and 2050 climate targets.[40] This made investing in and planning CO_2 transport networks and storage capacity a priority at the EU level.[41] Also, European Union funding bodies such as Horizon Europe and the Innovation Fund allocated significant funding for CCS deployment in the EU.

Subsequently, other initiatives followed in the EU to speed up CCS implementation, such as revisions to the CCS directives, guidance documents,[42] and national carbon management strategies, or support schemes in Austria,[43] France,[44] Germany,[45] Sweden,[46] Denmark,[47] and the Netherlands.[48]

On closer inspection, NZIA[49] takes a significant step forward by recognizing CCS as a net-zero technology and creating a legal duty for certain legal persons to provide CO2 injection capacity, an important part of the CCS chain.[50] The law moves from regulating single projects to regulating the whole system of carbon management,[51] with CCS as part of it.

3 The NZIA and the CO2 Injection Capacity Obligation

[37] EU ETS Directive (n 4) art 12(3a).
[38] Commission, 'Report on the Implementation of Directive 2009/31/EC on the Geological Storage of Carbon Dioxide' COM(2023) 657 final. The permit for the P18-4 field was granted by decision of 19 July 2013 (Staatscourant 2013, nr 21233).
[39] Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 (European Climate Law) [2021] OJ L243/1.
[40] Commission, 'Towards an Ambitious Industrial Carbon Management for the EU' (Communication) COM(2024) 62 final.
[41] The Strategy states that large volumes of CO_2 capture are likely to be indispensable for the EU's 2040 and 2050 climate objectives. The Commission's modelling projects about 280 Mt of captured CO_2 a year by 2040 and around 450 Mt by 2050, and an injection capacity of at least 250 Mt a year by 2040. The Strategy also identifies CO_2 transport infrastructure as a critical enabling component in all decarbonisation pathways and stresses the need for coordinated assessment and development of geological storage capacity across the EU.

[42] Commission, 'Workshops on the CCS Directive Guidance Documents' (17 September 2024) <https://climate.ec.europa.eu/news-your-voice/events/workshops-ccs-directive-guidance-documents-2024-09-17_en> accessed 17 June 2026.
[43] Austrian Federal Ministry of Agriculture and Forestry, Climate and Environmental Protection, Regions and Water Management, 'Carbon Management Strategy (CMS)' <https://www.bmluk.gv.at/en/topics/climate-environment/climate/national-climate-policy/carbon-management-weiterfuehrende-informationen/cms.html> accessed 12 May 2026.
[44] Direction générale des Entreprises, 'Deployment of Carbon Capture, Storage and Recovery (CCUS) in France' <https://www.entreprises.gouv.fr/la-dge/actualites/deploiement-de-la-capture-du-stockage-et-de-la-valorisation-du-carbone-ccus-en> accessed 12 May 2026.
[45] Deutsche Energie-Agentur (dena), 'Carbon Management Strategy' <https://www.dena.de/en/projects/carbon-management-strategy/> accessed 12 May 2026.
[46] Swedish Energy Agency, 'National Centre for CCS' <https://www.energimyndigheten.se/en/climate/carbon-capture-and-storage/national-centre-for-ccs/> accessed 12 May 2026.
[47] Danish Energy Agency, 'About CCS' (28 November 2024) <https://ens.dk/en/supply-and-consumption/about-ccs> accessed 12 May 2026.
[48] Government of the Netherlands, 'Government Support for Carbon Capture and Storage' (6 May 2026) <https://www.government.nl/themes/economy/sustainable-economy/government-support-for-carbon-capture-and-storage> accessed 12 May 2026.
[49] NZIA (n 19).
[50] The Act refers to the whole value chain, from capture to transport and storage, although its binding obligation concerns storage alone.
[51] ibid recitals 39-41 and arts 20-24.

3.1 Aims and Structure of the Act

The NZIA is considered the main legal instrument of the Green Deal Industrial Plan.[52] The Act sets out two main objectives: strengthening Europe's capacity to manufacture net-zero technologies and their key components, and removing barriers to scaling up production.[53] By 2030, the EU wants its factories to produce at least 40% of the clean technologies Europe needs to install each year.[54]

These objectives come with certain practical progressions. The Act shortens the procedures for getting permits, which was a big problem for investors and project operators; investments and innovations are supported as well. Supply chains and skills are also promoted.[55] The Act clearly defines a list of net-zero technologies, including renewable energy technologies, batteries and energy storage, heat pumps, electrolyzers, sustainable biogas and biomethane, grid technologies, nuclear technologies, and CCS.[56]

However, this Act gives CCS special treatment. Chapter III (Articles 20-24) is specifically about creating CO2 injection capacity. Article 20 sets a Union-wide target of at least 50 million tonnes of annual injection capacity by 2030.[57] Article 21 requires Member States to publish data on areas where storage sites could be permitted, as well as annual reports on CCS projects.[58] Article 23 clearly puts the burden of providing CO2 injection capacity on 44 entities.[59] This paper focuses specifically on this obligation stated under Article 23. This obligation is identified in Article 23, a Commission Delegated Regulation that identifies the obligated entities and calculates their contributions,[60] and a Commission Decision that names the obligated entities and sets their individual contributions in its first annex.[61]

3.2 Criticism of the Act

Under the EU law-making standards, the NZIA can easily be counted as an interventionist instrument that puts CO2 infrastructure at the center of the Union's grand clean industrial policy. The Act has also attracted several criticisms so far. For example, critics noted that the Act identifies only a closed set of technologies as strategic, limiting room for future innovations and new technologies. They also questioned the rationale for a 40 percent benchmark for technologies with different production capacities and market conditions.[62]

It is true that this Act advances the CCS legal framework, but it addresses only one CCS bottleneck, storage, and leaves other necessary parts (especially transport) in the shade. As mentioned above, CCS is fragmented legally, economically, and technically, and for successful deployment that

---

[52] Commission, 'A Green Deal Industrial Plan for the Net-Zero Age' (Communication) COM(2023) 62 final.
[53] Commission, 'The Net-Zero Industry Act' <https://single-market-economy.ec.europa.eu/industry/sustainability/net-zero-industry-act_en> accessed 3 September 2026.
[54] NZIA (n 19) art 5(1)(a).
[55] ibid art 1.
[56] ibid art 4(1).
[57] ibid art 20(1).
[58] ibid art. 21.
[59] ibid art 23.
[60] Commission Delegated Regulation (EU) 2025/1477 of 21 May 2025 supplementing Regulation (EU) 2024/1735 of the European Parliament and of the Council by specifying the rules on the identification of authorised oil and gas producers who are required to contribute to the objective of reaching the Union target for available CO_2 injection capacity by 2030, on the calculation of their respective contributions, and on their reporting obligations [2025] OJ L2025/1477 (Delegated Regulation 2025/1477).
[61] Decision 2025/1479 (n 22) annex 1.
[62] Simone Tagliapietra, Reinhilde Veugelers and Jeromin Zettelmeyer, 'Rebooting the European Union's Net Zero Industry Act' (Bruegel Policy Brief 15/2023) <https://www.econstor.eu/handle/10419/274229> accessed 24 June 2026.

achieves the ultimate goal of emission reduction, all parts should work together. Beyond transport, other barriers to implementing CCS remain, including limited access to finance and high costs. The Act does not create a union-wide funding mechanism and mainly depends on existing EU funding and national support. Some scholars warned that this could widen the gap between wealthy member states and the rest and distort the market.[63] Some of these concerns appear in cases brought before the General Court.

3.3 The obligation under Articles 20 and 23

As mentioned earlier, Article 20(1) provides that by 2030, an injection capacity of at least 50 mt per year should be achieved. These capacities should be provided in storage sites that are permitted already under the CCS directive, including depleted oil and gas fields and saline aquifers, located in the territory of the Union, its exclusive economic zones or on its continental shelf within the meaning of the United Nations Convention on the Law of the Sea (UNCLOS), and not combined with enhanced hydrocarbon recovery.[64] For the first time, Article 23 moves the legal CCS framework beyond economic incentives and requires each entity holding an authorization under the Hydrocarbons Licensing Directive to make an individual contribution to the target.[65] Annex 1 to the Commission Decision[66] lists 44 entities that must contribute to provide CO2 injection capacity based on their share of the Union's crude oil and natural gas production between 1 January 2020 and 31 December 2023. This should be ready for use by CO2 capture operators by 2030.

The Act therefore justifies the current obligation of 44 entities based on their historical emissions.[67] The Commission does this through two supplementary instruments. The first one is the Delegated Regulation[68] that sets out how the obligated entities are identified, how their shares are calculated, and what their reporting duties are. The Regulation excludes producers whose output was less than 610,000 tonnes of oil equivalent between 2020 and 2023, provided that together they account for less than 5 percent of Union production.[69] The second one is a Decision[70] that names 44 producer entities to which the share of obligation is allocated. The key point is that these unhappy entities account for more than 95 percent of Union production in the reference period.

Article 23 gave companies flexibility in how they comply with their obligation. They may invest in or develop storage projects alone or with others, team up with other 44 obligated entities, or enter into agreements with third-party storage developers or investors.[71] For example, a company can develop its project and fulfill its commitment in another member state's territory. This also reflects geological realities, as storage sites are concentrated in a few areas. If a Member State already has enough committed CO_2 storage capacity to exceed the amount its companies are expected to contribute, it can ask the Commission not to require those companies to make an additional

[63] ibid 5-6.
[64] NZIA (n 19) art 20(1). Under art 20(2), the sites must be designed to operate for at least five years and must offer fair and open access.
[65] ibid art 23(1); Directive 94/22/EC of the European Parliament and of the Council of 30 May 1994 on the conditions for granting and using authorizations for the prospection, exploration and production of hydrocarbons [1994] OJ L164/3 (Hydrocarbons Licensing Directive) art 1(3).
[66] Decision 2025/1479 (n 22) annex 1.
[67] The legislature also relied on the industry's assets, skills and knowledge of the subsurface. See NZIA (n 19) recital 43.

[68] Delegated Regulation 2025/1477 (n 59).
[69] ibid arts 3(1) and 4.
[70] Decision 2025/1479 (n 22) art 1 and annex 1.
[71] NZIA (n 19) art 23(5).

contribution.[72] Finally, if the Commission finds by the end of 2028 that a Member State has a significant imbalance between storage demand and its contributions, the Member State may, in exceptional circumstances, request a later compliance date.[73]

3.4 A storage obligation at sea

Article 20 covers both onshore and offshore sites for injecting CO2. In practice, however, the obligation mainly focuses on storing CO2 under the sea. The three projects that got permission since March 2026 prove this. These three offshore projects include Porthos off Rotterdam, Greensand in the Danish North Sea, and Prinos in the northern Aegean. Seven other projects awaiting permission are also offshore (in the North Sea and in the Adriatic off Ravenna).[74] The main reasons are the characteristics of the underground rock formations, along with the companies' existing resources and experience. The EU imposes this obligation on oil and gas companies in part because they already possess the geological expertise, data, and infrastructure necessary to support the development of CO_2 storage sites.[75]

Therefore, Article 20 is clearly linked to the Law of the Sea. This regulation takes into account the carbon dioxide (CO_2) storage capacity located in three zones, as defined by UNCLOS, which aligns with the CCS Directive:[76] a. EU territory: Land and areas under a Member State's sovereignty; b. Exclusive Economic Zone (EEZ): The sea area where a coastal State has specific rights over natural resources; and c. Continental shelf: The seabed and subsoil over which a coastal State has certain rights to explore and exploit natural resources. UNCLOS gives coastal States the exclusive right to authorize and regulate drilling on their continental shelves. They also have jurisdiction over installations and structures there, subject to the applicable international rules.[77] The NZIA relies on the legal powers that coastal States already have under international law. However, those powers are not unlimited. States must respect the restrictions imposed by UNCLOS and other applicable international obligations. For example, the London Protocol originally regulated the dumping of wastes and other matter at sea. In 2006, its rules were amended to permit storing CO_2 streams in geological formations beneath the seabed, subject to specific conditions.[78] OSPAR's rules were amended to allow CO_2 storage in geological formations beneath the seabed, subject to the applicable requirements.[79] The Helsinki Convention prohibits dumping, and whether that prohibition extends to sub-seabed storage is disputed. HELCOM commissioned a legal review of the question in 2025.[80] (The author worked with a group of brilliant lawyers in 2026 on the legality of CCS deployment

[72] ibid art 23(7)-(9).
[73] ibid art 23(11). Recital 46 describes such derogations as an essential tool to prevent stranded assets.
[74] Commission, 'Report on the Progress towards Reaching the Union-wide Target for CO_2 Injection Capacity' COM(2026) 252 final (Progress Report). The permitted reservoirs are P18-2 and P18-4 (Porthos), Nini West (Greensand), and Prinos. The applications concern Nini Main and East, Ravenna, L04-A, L09-FF, L10-ALBE, K14-FAFC and Q16-FA.
[75] NZIA (n 19) recital 43.
[76] CCS Directive (n 3) art 2(1).
[77] United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3, arts 56(1)(b)(i), 60, 80 and 81.
[78] 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (adopted 7 November 1996, entered into force 24 March 2006) (1997) 36 ILM 1 (London Protocol) annex 1, para 1.8, as amended by Resolution LP.1(1) of 2 November 2006, in force since 10 February 2007.
[79] Convention for the Protection of the Marine Environment of the North-East Atlantic (adopted 22 September 1992, entered into force 25 March 1998) 2354 UNTS 67, annex II art 3(2)(f) and annex III art 3(3), as amended on 29 June 2007 (in force since 23 July 2011); OSPAR Decision 2007/2 on the Storage of Carbon Dioxide Streams in Geological Formations.
[80] Convention on the Protection of the Marine Environment of the Baltic Sea Area (adopted 9 April 1992, entered into force 17 January 2000) 2099 UNTS 195, art 11; HELCOM, 'Call for Tender: Legal Analysis of CCS in Accordance with the Helsinki Convention' (2 September 2025) <https://helcom.fi/call-for-tender-legal-analysis-of-ccs-in-accordance-with-the-helsinki-convention/> accessed 14 October 2026.

under the Helsinki Convention regime, which led to a 100-page report for member states. The report concluded that CCS is legal under the Helsinki Convention under certain requirements)

The transport side of the obligation can also be influenced by the obligation. Article 23 confirms that entities can fulfill their obligation anywhere within the EU, given that geological formations are not equally distributed among member states. A country does not necessarily need its own CO_2 storage sites, but it needs a practical way to transport its captured CO_2 to storage sites elsewhere. In the early stages of CCS development, ships are expected to play an important role in making this possible. Greensand, which opened for commercial operation in September 2026, receives CO_2 by ship from the port of Esbjerg, and Norway's Northern Lights project has stored shipped CO_2 since August 2025.[81] Northern Lights does not yet count towards the target, since the NZIA has not been incorporated into the EEA Agreement.[82] EU law has been amended to cover shipping CO_2. Since the 2023 revision of the EU ETS, the system covers CO_2 transport for geological storage, regardless of the means of transport.[83] International law was a bit more reluctant to amend. Exporting CO_2 for sub-seabed storage engages Article 6 of the London Protocol. The 2009 amendment permitting such export is still not in force, so exporting and receiving States must rely on its provisional application, as allowed by a 2019 resolution, and on bilateral arrangements.[84] The practical value of the flexibility in Article 23 therefore depends on maritime arrangements that lie largely outside EU law.

The EU must consider how long offshore storage projects and international transport arrangements take to develop. There are two legal questions. First, is it fair to require companies to meet the 2030 deadline when building storage sites, arranging ships and making agreements between countries takes time? Second, is it fair to impose the same obligation on all companies when some countries have suitable places to store CO_2, and others do not?

3.5 First results

Under Article 23, each entity should submit a plan by 30 June 2025 explaining how it intends to meet its obligation. From June 2026 onward, entities must also submit an annual progress report.[85] The Commission published the first progress report on the target in May 2026.[86] The report reflects a mixed picture. All 44 companies submitted plans, but only 16 confirmed their specific contributions by 2030. Even if all plans reach their maximum intended capacity, they would deliver only 58% of the EU's target.

There is no doubt that NZIA is a step forward toward enabling CCS deployment at the EU level. But some questions remain open. These questions include why other producers below the threshold are exempt, how companies can count their contributions to CO_2 storage projects developed by other

---

[81] 'INEOS Starts Full-Scale CO_2 Storage at Greensand Project in Danish North Sea' (*Offshore Engineer*, September 2026) <https://www.oedigital.com/news/543077-ineos-starts-full-scale-co2-storage-at-greensand-project-in-danish-north-sea> accessed 14 October 2026; Equinor, 'First CO_2 Volumes Stored at Northern Lights' (25 August 2025) <https://www.equinor.com/news/20250825-first-co2-volumes-stored-at-northern-lights> accessed 14 October 2026.

[82] NZIA (n 19) recital 41, which provides that the target will be adjusted once the Act is incorporated into the EEA Agreement. On the state of incorporation, see EFTA, 'EEA-Lex: 32024R1735' <https://www.efta.int/eea-lex/32024R1735> accessed 14 October 2026.

[83] Directive (EU) 2023/959 of the European Parliament and of the Council of 10 May 2023 amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union and Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading system [2023] OJ L130/134, recital 69 and annex I.

[84] London Protocol (n 77) art 6, as amended by Resolution LP.3(4) of 30 October 2009 (not yet in force); Resolution LP.5(14) on the provisional application of the 2009 amendment to Article 6 of the London Protocol (11 October 2019).

[85] NZIA (n 19) art 23(4) and (6).

[86] Progress Report (n 73).

companies, and the relationship between the obligation and national permitting procedures, which Member States control. And some more fundamental questions: why the Act focuses on only one link in the chain and leaves two others (transport and capture), and why the success of NZIA depends on something outside the Act.

4. The action before the General Court

4.1 Procedural setting

The legal actions directly target the Commission, not the Parliament and the Council. They clearly seek annulment of the Delegated Regulation[87] and the Decision[88] or both. This decision is based on the legal rules that determine who can bring a case before a court. The NZIA is EU law, and under Article 263(4) TFEU, individuals or companies can challenge it directly before the EU courts only if they are directly and individually affected, which is difficult to prove in most cases.[89] By contrast, the Decision names each applicant and fixes its contribution, so the applicants are clearly entitled to challenge it. In any event, the time limit for a direct action against the NZIA expired in 2024. Their standing against the Delegated Regulation is less certain. It is a regulatory act, but it arguably entails implementing measures, namely the Decision, which may explain why several applicants also contest it through a plea of illegality.

Almost all applicants claim that the obligation breaches provisions of the TFEU,[90] the Charter of Fundamental Rights[91] and general principles of EU law developed in the case law of the Court of Justice. Because they cannot challenge the NZIA directly, most raise a plea of illegality under Article 277 TFEU. They ask the General Court to declare Article 23, and in some cases Article 20 or the whole of Chapter III of the NZIA, inapplicable to them, and to annul the contested acts for lack of a valid legal basis.[92] Article 277 allows a party to contest, in proceedings against a measure addressed to it or of direct and individual concern to it, the legality of the general act on which that measure is based.[93] If the plea succeeds, the General Court does not annul Article 23. It declares the provision inapplicable to the case before it, annuls the contested acts, and requires the institutions concerned to take the necessary measures under Article 266 TFEU.

The actions do not suspend the obligation, since actions before the Court of Justice of the European Union have no suspensory effect under Article 278 TFEU. The Parliament and the Council, which adopted the NZIA, may also intervene in its defense. ExxonMobil affiliates have also served a notice of dispute on the EU under the Energy Charter Treaty, suggesting the conflict may also move into investment arbitration.[94]

---

[87] Delegated Regulation 2025/1477 (n 59).
[88] Decision 2025/1479 (n 22).
[89] Case C-583/11 P *Inuit Tapiriit Kanatami and Others v Parliament and Council* EU: C:2013:625, paras 58-61.
[90] TFEU (n 24).
[91] Charter (n 25).
[92] See, for example, *ExxonMobil Producing Netherlands and Mobil Erdgas-Erdöl v Commission* (T-715/25), *Nederlandse Aardolie Maatschappij v Commission*, *Orlen v Commission* and *TotalEnergies EP Danmark and Others v Commission* (n 23). In *OMV Petrom v Commission* (n 23), the pleas are said to show the illegality, and thus the inapplicability, of the NZIA in whole or in part, in particular of Articles 20 and 23.
[93] Case 92/78 *Simmenthal SpA v Commission* EU:C:1979:53, paras 39-41.
[94] 'ExxonMobil Serves ECT Notice of Dispute on the European Union over Carbon Capture Obligations' (*IISD Investment Treaty News*, 9 September 2026) <https://www.iisd.org/itn/2026/09/09/exxonmobil-serves-ect-notice-of-dispute-on-the-european-union-over-carbon-capture-obligations/> accessed 14 October 2026. The EU's withdrawal from the Energy Charter Treaty (adopted 17 December 1994, entered into force 16 April 1998) 2080 UNTS 95 took effect in 2025, but Article 47(3) of the Treaty continues to protect existing investments for twenty years. On intra-EU disputes, see Case C-741/19 *Republic of Moldova v Komstroy LLC,* EU: C:2021:655.

4.2 The Pleas

The actions overlap significantly, but each has its own features. This article groups the pleas into four main lines of argument. The first one is that the EU has no proper legal basis to oblige private companies to provide CO2 injection capacity. The second is that the Act places a disproportionate obligation on a small group of entities, regardless of their circumstances, and that it is probably impossible to fulfill. Third, the obligation fundamentally conflicts with the freedom to conduct business and the right to property. Fourth, the 44 companies are being treated unequally, particularly because the obligation is based on past production that may not reflect current market conditions.

The applicants also invoke several other issues, including, inter alia, legal certainty and the protection of legitimate expectations, non-retroactivity, procedural defects in the consultation, the limits of the Commission's delegated powers under Article 290 TFEU, and subsidiarity. These pleas matter to some extent but are not the main arguments, so they fall outside this article's scope. For instance, the claim that the Delegated Regulation exceeds the powers under Article 23(12) may well matter for the outcome, but it concerns the Commission's acts rather than the validity of the obligation itself.

Commentary so far includes a detailed defense of Article 23 prepared by civil society organizations and a short academic analysis of whether the Union can bind private actors to provide climate transition infrastructure.[95] The sections below take a different path by asking how the General Court is likely to decide under the existing case law.

5 Legal Basis

5.1 The Applicants' case

Article 114 TFEU is mentioned as the legal basis of the NZIA.[96] The applicants argue that this does not provide a proper legal basis for the obligation imposed on them under Article 23.

According to Article 5(2) of the Treaty on European Union (TEU), the Union's action is limited by the competences conferred upon it by the Treaties.[97] Under Article 114(1) TFEU, the Parliament and the Council may adopt measures to approximate the provisions laid down by law, regulation, or administrative action in Member States, with the aim of establishing and functioning of the internal market. Approximation is the key word the applicants referred to in their pleas. They argue that Article 23 does not approximate anything, nor does it replace divergent national rules with a common, unified standard. Instead, it requires private entities to finance and build CO2 storage capacity for others' benefit. According to the applicants, this seems more like creating a new law than harmonizing an existing one. OMV Petrom, for instance, argues that no such market exists in any member state yet,

---

[95] Bellona Europa and Carbon Balance Initiative, 'Article 23 on Trial: How Oil and Gas Producers Are Challenging the EU's Flagship CCS Market-Building Measure' (May 2026) <https://network.bellona.org/content/uploads/sites/6/2026/05/Article-23-On-Trial-How-oil-and-gas-producers-are-challenging-the-EUs-flagship-CCS-market-building-measure-1.pdf> accessed 14 October 2026; Rachel Ardiff and William Druet, 'Obligated Entities under Art. 23 NZIA v. Commission' (amicus text, revised 23 April 2026) <https://network.bellona.org/content/uploads/sites/6/2026/04/Article-23-Amicus-Curiae-6-1-1.pdf> accessed 14 October 2026; Rachel Ardiff and Ingrid Udd Sundvor, 'Can the European Union Bind Private Actors to Providing Climate Transition Infrastructure?' (Grantham Research Institute on Climate Change and the Environment, 29 June 2026) <https://www.lse.ac.uk/granthaminstitute/?p=87031> accessed 14 October 2026.

[96] NZIA (n 19) preamble, citing Article 114 TFEU.

[97] Consolidated Version of the Treaty on European Union [2016] OJ C202/13 (TEU).

so the Union lacks competence to force private entities to build part of one.[98] On the same note, ExxonMobil (Cases T-714/25[99] and T-715/25[100]), BEB (Cases T-716/25[101] and T-717/25[102]), Black Sea Oil & Gas[103] and Orlen (Cases T-719/25[104] and T-720/25[105]) argue that the obligation neither approximates national laws nor removes obstacles caused by divergent national regimes.

The applicant argues that the EU chose Article 114 because other legal bases would limit its powers, protect Member States' freedom over energy resources, or require unanimous agreement. OMV Petrom goes further, arguing that Article 173 TFEU on industry, or, alternatively, Article 192 TFEU on the environment, would have been the proper basis for such an Act.[106] This could have made a big difference. If the EU uses Article 173(3) TFEU to support a law on industry, it cannot use that legal basis to make the laws of Member States more uniform. If the EU uses Article 192(1) for environmental legislation, Member States can still introduce stronger environmental protections under Article 193. Article 194 TFEU, another candidate legal basis, concerns EU energy policy. Its second paragraph preserves Member States' right to decide how their energy resources are exploited. A legal obligation linked to oil and gas production might interfere with that right. Article 114 avoids all these limits, and the applicant suggests that this is why the legislature chose it.

5.2 Article 114 TFEU in the case law

The *Tobacco Advertising I* case is a clear example in which the Court annulled a directive adopted on the basis of Article 114.[107] The EU adopted a law restricting tobacco advertising and relied on its internal market powers. The Court of Justice annulled the directive because the EU exceeded the powers granted by its legal basis. Article 114 TFEU does not allow the EU to adopt any law simply by claiming it relates to the internal market. The law must actually help the internal market function better, for example by removing real barriers to trade between EU countries. It is not enough to say that national laws differ or might create trade problems. The EU needs to show a real connection between the law it adopts and improved internal market functioning.[108] Therefore, the EU cannot automatically justify requiring oil and gas companies to provide CO_2 storage capacity simply because national storage rules differ. It must show that the obligation genuinely improves the functioning of the EU internal market. At the same time, the court confirms that the EU can use Article 114 even if trade barriers do not yet exist, provided there is a real likelihood that different national laws will create barriers in the future and EU law is designed to prevent them.[109]

The Court further clarified in *Swedish Match* that Article 114 TFEU may be used even where public health protection is a decisive factor in the EU legislature's choices, provided that the conditions for

---

[98] *OMV Petrom v Commission* (n 23) first plea.
[99] *ExxonMobil Producing Netherlands and Mobil Erdgas-Erdöl v Commission* (T-714/25) (n 23) first plea.
[100] *ExxonMobil Producing Netherlands and Mobil Erdgas-Erdöl v Commission* (T-715/25) (n 23) first plea.
[101] *BEB Erdgas und Erdöl and Oldenburgische Erdölgesellschaft v Commission* (T-716/25) (n 23) first plea.
[102] *BEB Erdgas und Erdöl and Oldenburgische Erdölgesellschaft v Commission* (T-717/25) (n 23) first plea.
[103] *Black Sea Oil & Gas v Commission* (n 23) third plea; see also *Romgaz v Commission* (n 23).
[104] *Orlen v Commission* (n 23) first plea.
[105] *Orlen Petrobaltic v Commission* (n 23) first plea.
[106] *OMV Petrom v Commission* (n 23) first plea.
[107] Case C-376/98 *Germany v Parliament and Council* EU:C:2000:544 (*Tobacco Advertising I*).
[108] ibid paras 83-84. Article 114 TFEU was formerly Article 95 EC and, before that, Article 100a of the EC Treaty. The judgment applied Article 100a.
[109] ibid para. 86.

relying on this legal basis are satisfied.[110] This means that a measure does not fall outside Article 114 simply because it pursues an important objective beyond the internal market. Applied to the NZIA, the obligation to provide CO_2 injection capacity serves climate and industrial policy objectives and would not, by itself, prevent the EU from relying on Article 114. The decisive question remains whether the measure genuinely meets the requirements for improving the functioning of the internal market.

Later judgments confirmed this preventive use of Article 114. In *British American Tobacco*, the Court upheld a directive aimed partly at preventing future obstacles arising from the divergent development of national laws.[111] In *United Kingdom v Parliament and Council*, a case on the European Network and Information Security Agency (*ENISA*), it held that the words 'measures for the approximation' give the legislature discretion as to the method of approximation most appropriate for achieving the desired result, in particular in fields with complex technical features, and that such measures need not be addressed only to the Member States.[112] In *Vodafone*, the Court upheld a regulation that imposed maximum roaming charges directly on mobile operators. It accepted that the regulation sought to prevent national measures from diverging and found that its object was to improve the functioning of the internal market.[113] *Vodafone* is particularly relevant here because the Court accepted, under Article 114, a measure that imposed a direct economic obligation on private undertakings.

5.3 Market building through preventive harmonization

The case law discussed above answers one argument against Article 23: the fact that Member States have not yet regulated a particular activity does not automatically prevent the EU from acting under Article 114 TFEU. The EU may adopt measures to prevent future barriers to trade where differences between national laws are likely to emerge and would hinder the functioning of the internal market. The more difficult question is whether this power also allows the EU to require companies to build the infrastructure needed for a still-developing market.

The first question is whether the EU legislature could reasonably identify a risk that different national approaches to CO_2 injection and storage would hinder the development of a European market. The second is whether Article 23 genuinely addresses that risk.

Several arguments support the Commission's position. Article 1(1) of the NZIA states that the Act aims to improve the functioning of the internal market.[114] Article 23 seeks to develop CO_2 injection capacity, which is essential for a European market in carbon capture, transport and storage. The recitals identify a coordination problem between companies investing in CO_2 capture and those developing storage capacity. They link the 50 million tonnes annual injection capacity target by 2030 to developing a European value chain for CO_2 transport and storage.[115] Article 20 also allows storage

[110] Case C-210/03 *The Queen, on the application of Swedish Match AB and Swedish Match UK Ltd v Secretary of State for Health* EU: C:2004:802, paras 29-34.
[111] Case C-491/01 *The Queen v Secretary of State for Health, ex parte British American Tobacco (Investments) Ltd and Imperial Tobacco Ltd,* EU: C:2002:741, paras 60-62.
[112] Case C-217/04 *United Kingdom v Parliament and Council* EU:C:2006:279, paras 43-44 (*ENISA*); see also Case C-66/04 *United Kingdom v Parliament and Council* EU:C:2005:743, paras 45-46.
[113] Case C-58/08 *The Queen, on the application of Vodafone Ltd and Others v Secretary of State for Business, Enterprise and Regulatory Reform* EU: C:2010:321, paras 32-38 and 47-48.
[114] NZIA (n 19) art 1(1).
[115] ibid recitals 39-41.

capacity in any Member State to count towards the Union target and requires the relevant storage sites to provide fair and open access.[116]

The EU legislature also recognized differences in Member States' geological storage potential, national laws, and market conditions. These differences could lead to uneven development of storage capacity across the Union. If storage capacity remained concentrated in a few countries without sufficient connections to CO_2 sources elsewhere, the development of a European market could be delayed. Article 23 addresses this concern by requiring contributions at Union level and encouraging storage capacity to develop before demand fully emerges.[117]

However, these arguments do not settle the legal question. A measure does not fall within Article 114 merely because it has economic benefits or contributes to the internal market in some way. The Court must examine the measure's objective and content to determine whether Article 114 is an appropriate legal basis.[118] Where a measure pursues several objectives, its legal basis generally depends on its main or predominant purpose.[119] If environmental protection is the measure's main purpose and its effect on the internal market is only incidental, Article 114 cannot justify it.[120] The key question, therefore, is whether Article 23 addresses real or likely obstacles to cross-border economic activity, or whether its internal-market objective is secondary to its climate and industrial-policy aims.

This is the strongest part of the applicants' argument. Article 23 does not simply align existing national rules. Instead, it requires certain oil and gas producers to help develop injection capacity for a market still taking shape. The provision therefore goes beyond conventional harmonization, in which the EU replaces different national rules with common rules. It raises a harder question: can the EU use Article 114 not only to prevent barriers to an emerging market, but also to require companies to build the infrastructure the market needs?

The Court's case law permits action to prevent likely future barriers, but it does not give the EU a general power to create any market it considers desirable. The legal basis is harder to defend if Article 23 mainly advances climate and industrial policy rather than addressing problems affecting the internal market. The fact that a European CO_2 storage market would be useful does not, by itself, establish that Article 114 authorizes the EU to impose the obligation.

The Commission nevertheless has substantial arguments in response. The CCS chain is inherently cross-border. CO_2 captured in one Member State may be transported through another country and stored under the seabed of a third. At the same time, geological storage capacity is concentrated in certain regions, particularly around the North Sea and the Mediterranean. Differences in national approaches could therefore affect companies seeking to transport and store CO_2 across borders.

The Member States had already adopted different approaches to geological storage. Under Article 4(1) of the CCS Directive, each Member State may determine the areas in which storage may take place and may refuse storage in part or all of its territory. In 2023, nine Member States did not allow

[116] ibid art 20(2).
[117] Ibid recital 43.
[118] Case C-300/89 *Commission v Council* EU:C:1991:244, para 10 (*Titanium Dioxide*).
[119] Case C-411/06 *Commission v Parliament and Council* EU:C:2009:518, paras 45-47.
[120] Case C-155/91 *Commission v Council* EU:C:1993:98, paras 19-20.

geological storage, while others actively supported its development.[121] The Commission can argue that these differences, combined with the uneven distribution of storage potential, threatened the development of a functioning European market for CO_2 transport and storage. On this view, Article 23 responds to a structural problem affecting cross-border economic activity rather than pursuing environmental protection alone.

The Commission can also rely on *Tobacco Advertising I*, which recognizes that Article 114 may be used to prevent likely future obstacles to trade.[122] Article 114(3) further requires the Commission to base its internal-market proposals on a high level of environmental protection. Climate objectives can therefore form part of the rationale for a measure adopted under Article 114, although they cannot replace the requirement for a genuine internal-market purpose. The Vodafone and ENISA judgments also support the legislature's discretion to choose the form of measure it considers appropriate, including obligations addressed directly to private companies, provided the measure genuinely seeks to improve the functioning of the internal market.[123] The analogy with *Vodafone* is not complete, however. That case concerned limits on roaming charges, whereas Article 23 requires companies to contribute to the development of new infrastructure.

On balance, the challenge to Article 114 as the legal basis is unlikely to succeed, although the issue is not straightforward. The cross-border nature of CO_2 transport and storage, differences between national approaches, and the objective of developing a European carbon management market give the Commission a credible basis to argue that Article 23 improves the functioning of the internal market. The legislature also enjoys considerable discretion when choosing measures in technically complex sectors.

The main difficulty is that Article 23 does not simply harmonize existing national rules. It imposes a new obligation intended to develop the infrastructure for an emerging market. The Court must therefore decide how far Article 114 permits the EU to build market conditions before that market has fully developed. If the Court finds the internal-market objective genuine and that divergent national approaches pose a credible risk to cross-border activity, it is likely to uphold the legal basis. If it considers that the provision mainly pursues climate and industrial policy, with only an incidental connection to the internal market, the challenge becomes stronger. The applicants' proportionality arguments may nevertheless offer a more promising route to challenge Article 23.

6. Proportionality

In all 15 cases brought to the General Court, proportionality was clearly invoked. In EU law, proportionality means that an EU measure must not go further than necessary to achieve its legitimate objective. The Court examines whether the measure is suitable for achieving that objective, whether a less restrictive alternative could achieve the same result, and whether the disadvantages caused by the measure are excessive compared with its benefit.

The applicants argue that even if the Union had competence to adopt Article 23, the obligation goes beyond what is necessary to achieve its aims. They raise two main concerns. First, they question

[121] CCS Directive (n 3) art 4(1); Commission, 'Report on the Implementation of Directive 2009/31/EC' (n 38) 3. The nine were Austria, Cyprus, Estonia, Finland, Germany, Ireland, Latvia, Lithuania and Slovenia.
[122] *Tobacco Advertising I* (n 106) paras 83-86.
[123] *Vodafone* (n 112) para 35; *ENISA* (n 111) para 43.

whether the EU had enough information to justify the obligation, focusing on the impact assessment, the 2030 deadline, and existing storage capacity. Second, they argue that the EU could have achieved its objective through less burdensome measures.

TotalEnergies,[124] Shell Italia,[125] Nederlandse Aardolie Maatschappij,[126] Orlen (Cases T-719/25[127] and T-720/25[128]) and Black Sea Oil & Gas[129] argue that the EU did not provide sufficient evidence that companies could meet the target in practice. The Commission did not carry out a formal impact assessment before presenting its proposal. The Commission explained that it did not have sufficient time to prepare one and published a staff working document with supporting information three months later.[130] The applicants argue that, without an adequate assessment, the EU could not properly evaluate the costs for companies, the availability of suitable storage sites or the practical feasibility of the obligation. These concerns are closely connected to two further questions: whether companies have enough time to meet the 2030 deadline and whether the EU properly accounted for existing or developing storage capacity.

OMV Petrom,[131] TotalEnergies,[132] Tenaz Energy Netherlands,[133] Nederlandse Aardolie Maatschappij[134] and Shell Italia[135] argue that companies may not have enough time to provide the required capacity. Developing a CO_2 storage site involves several stages, including exploration, environmental assessments, permits, drilling and construction.[136] These processes can take years. Since the companies' individual obligations were set only in 2025, the applicants argue that the time remaining until the end of 2030 is too short to develop the required capacity. Their argument is therefore not simply that the deadline is demanding, but that the EU may not have adequately considered the time needed to develop storage facilities before requiring companies to meet it.

OMV Petrom[137] and Tenaz Energy Netherlands[138] argue that the EU did not properly account for capacity that was already available or under development when calculating the companies' obligations. If this capacity was not adequately considered, companies could be required to provide more storage capacity than necessary to meet the EU's target. This raises the question of whether the obligations were calculated on a sufficiently accurate assessment of the EU's actual storage needs.

The applicants also argued that the EU could have achieved its objective through less burdensome measures. Instead of requiring a limited group of oil and gas companies to provide storage capacity, the EU could have offered more financial support, strengthened the EU Emissions Trading System (EU ETS), increased funding through the Innovation Fund, or encouraged voluntary investment

---

[124] *TotalEnergies EP Danmark and Others v Commission* (n 23) first plea.
[125] *Shell Italia E&P v Commission* (n 23) first plea.
[126] *Nederlandse Aardolie Maatschappij v Commission* (n 23) third plea.
[127] *Orlen v Commission* (n 23) eighth plea.
[128] *Orlen Petrobaltic v Commission* (n 23) eighth plea.
[129] *Black Sea Oil & Gas v Commission* (n 23) second, fourth and eighth pleas.
[130] Commission, 'Proposal for a Regulation of the European Parliament and of the Council on establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem (Net Zero Industry Act)' COM(2023) 161 final, explanatory memorandum; Commission Staff Working Document SWD(2023) 219 final (19 June 2023).
[131] *OMV Petrom v Commission* (n 23) third and sixth pleas.
[132] *TotalEnergies EP Danmark and Others v Commission* (n 23) first plea.
[133] *Tenaz Energy Netherlands v Commission* (n 23).
[134] *Nederlandse Aardolie Maatschappij v Commission* (n 23) third plea.
[135] *Shell Italia E&P v Commission* (n 23) first plea.
[136] CCS Directive (n 3) arts 4-11.
[137] *OMV Petrom v Commission* (n 23).
[138] *Tenaz Energy Netherlands v Commission* (n 23).

through public-private partnerships. OMV Petrom argues that the Commission chose a particularly burdensome approach without properly examining these alternatives.[139] The central question is whether a less restrictive measure could have achieved the same objective effectively, without imposing such demanding obligations on the companies concerned.

The Commission can be expected to answer by stressing the legislature's broad discretion in complex technical, scientific, and economic assessments. It may point to the evidence before it, including the staff working document of June 2023, the Industrial Carbon Management Strategy published during the legislative process,[140] and consultations with Member States and stakeholders. It will also stress that no company is required to develop a storage site on its own. Article 23 allows companies to cooperate, co-invest, contract with third-party storage operators or develop projects anywhere in the Union. This flexibility reduces the burden on each company and supports the measure's proportionality.

The Commission may also argue that intervention was urgent. More than a decade of support, first through the NER 300 program and the EU ETS and later through the Innovation Fund, had failed to produce enough storage capacity. A binding obligation was needed to overcome coordination failures across the CCS chain and give investors certainty before 2030.

The Court gives the EU legislature considerable freedom when making decisions involving complex technical and economic questions. It will therefore not annul such a measure simply because it considers another approach preferable. However, as the Court explained in *British American Tobacco*[141] and *Vodafone*,[142] it may annul a measure if it is manifestly inappropriate for achieving its objective.

Therefore, this freedom is not unlimited. The legislature must base its decisions on objective evidence and consider whether the measure's aims justify the economic harm it may cause certain companies.[143] In *Spain v Council*, the Court found a breach of proportionality because the Council failed to consider all relevant factors and circumstances.[144] The Court also clarified that an impact assessment does not bind the legislature, and its absence does not automatically breach proportionality. An assessment may be omitted where the circumstances justify doing so, and the legislature still has enough information to evaluate the measure.[145] The Commission's explanation that it lacked sufficient time to prepare an impact assessment may justify its absence. The key question is whether the information available to the legislature, including the later staff working document, was sufficient to assess the effects of Article 23.

Applied to Article 23, these principles support some aspects of the measure but raise concerns about others. Requiring oil and gas producers to contribute to storage capacity may be justified because the legislature identified a coordination problem between CO_2 capture and storage projects, and these

[139] *OMV Petrom v Commission* (n 23).
[140] Commission, 'Towards an Ambitious Industrial Carbon Management for the EU' (n 40).
[141] *British American Tobacco* (n 110) paras 122-123.
[142] *Vodafone* (n 112) paras 51-52.
[143] ibid para. 53.
[144] Case C-310/04 *Spain v Council* EU:C:2006:521, paras 120-123 and 133-135.
[145] Case C-5/16 *Poland v Parliament and Council*, EU:C:2018:483, para 159; Case C-482/17 Czech Republic v Parliament and Council, EU:C:2019:1035, paras 82-85.

companies have relevant technical expertise and geological data. The 2030 deadline is more difficult to justify. Developing an offshore storage site can require exploration, permits, environmental assessments, drilling, construction, and, in some cases, new port facilities and ships, as well as international maritime law considerations that we mentioned earlier. These steps take time. The Porthos project illustrates the problem: it received its storage permits in 2021 and 2022, but its start date has since been delayed to the second half of 2027.[146] Since the companies' individual obligations were set in May 2025, they have only around five years to provide the required capacity. Delays could make this difficult. The Commission's own progress report adds to the concern: the companies' submitted plans covered at most 58 percent of the 50 million tonnes annual target.[147] This raises the question of whether the deadline was set after sufficient consideration of the time and practical difficulties involved in developing storage capacity.

The Commission can argue that Article 23 includes safeguards to reduce the burden on companies. Under Article 23(11), a Member State may request a later compliance date if, by the end of 2028, the Commission finds a significant imbalance between demand for CO_2 storage and the capacity companies are required to provide. In addition, Member States set the penalties for non-compliance, which must be proportionate.[148] These safeguards support the Commission's argument that Article 23 is appropriate. However, they do not solve every problem. A later deadline is possible only if storage demand and required capacity are imbalanced. It may not help a company that cannot meet its obligation on time because obtaining permits or building storage facilities takes too long, even when demand for storage remains high.

Overall, the proportionality argument is stronger than the legal-basis argument for Article 23. However, the Court will still likely not strike down the whole article. The Court usually gives the EU institutions considerable freedom in climate, environmental and industrial policy. Therefore, it will be difficult to prove that Article 23 is clearly unsuitable for achieving its goal. The EU can also argue that CCS has an important role in meeting its climate targets and that previous efforts have failed to deliver enough storage capacity. These reasons provide a strong basis for the EU to justify the measure.

The applicants may have a better chance of success by challenging how the Commission calculated each company's obligation. For example, they could show that the Commission used incorrect production data, applied the wrong period or threshold, or failed to count storage capacity that should have been included. If the Court finds that the Commission made a clear error, it could annul the Delegated Regulation[149] or the Decision[150] without invalidating Article 23 itself.

7. Freedom to Conduct a Business and the Right to Property

[146] 'Porthos CO_2 Storage Project Suffers Delays' (*SWZ Maritime*, 21 April 2026) <https://swzmaritime.nl/news/2026/04/21/porthos-co2-storage-project-suffers-delays/> accessed 14 October 2026.
[147] Progress Report (n 73).
[148] NZIA (n 19) art 23(11) and (13). Oddly, Article 23(13) refers to infringements of the entities' obligations 'under paragraph 3', although that paragraph places a duty on the Commission, not the entities.
[149] Delegated Regulation 2025/1477 (n 59).
[150] Decision 2025/1479 (n 22).

Among the four argument lines, the third one is claiming that the obligation breaches fundamental rights protected by the Charter,[151] in particular, the freedom to conduct a business in Article 16 and the right to property in Article 17.

TotalEnergies,[152] Nederlandse Aardolie Maatschappij,[153] Shell Italia[154] and Orlen (Cases T-719/25[155] and T-720/25[156]) argue that they are forced by the obligation under Article 23 to invest in activities they do not intend to. They also claim that the mandatory large investment in storage facilities prevents them from focusing on their own investment priorities and violates their commercial autonomy. OMV Petrom[157] argues that the NZIA not only regulates an economic activity but also forces private entities to enter a new market for third parties' benefit. Article 16 protects a company's right to decide whether to do a business at all. Forcing a company to carry out a particular business directly affects this basic right.

Furthermore, Black Sea Oil & Gas,[158] Orlen (Cases T-719/25[159] and T-720/25[160]), Tenaz Energy Netherlands,[161] RockRose (NL) CS1[162] and Vermilion Energy Netherlands and Others[163] focus on the property right and argue that the obligation requires them to commit significant capital and assets without compensation or any guarantee of a commercial return. This compulsory allocation of capital, in their view, is an unjustified interference with the peaceful enjoyment and use of their possessions.

An analysis of precedent cases shows that these rights are not absolute. In *Sky Österreich*, the Court held that public authorities can restrict business activities for the public interest.[164] It also explained that Article 17 does not protect every commercial interest or business opportunity, because uncertainty is a normal part of doing business.[165] In *Hauer*, the Court accepted that property rights can be restricted for the public good, as long as the restriction is proportionate and does not undermine the essential content of that right.[166] In *Alliance for Natural Health*, the Court stressed that these rights must be considered in their social context. The Court also clarified that companies have no guaranteed right to maintain their existing market share. Therefore, Article 23 may affect their competitive position or profits, but that alone does not violate their fundamental rights.[167] In *Schaible*, the Court accepted that businesses may be required to bear additional costs to meet legitimate public policy objectives, even where those costs affect their economic interests. By analogy, Article 23's imposition of financial and operational burdens on oil and gas companies does not, in itself, make the obligation

[151] Charter (n 25).
[152] *TotalEnergies EP Danmark and Others v Commission* (n 23) third plea.
[153] *Nederlandse Aardolie Maatschappij v Commission* (n 23) fifth plea.
[154] *Shell Italia E&P v Commission* (n 23) third plea.
[155] *Orlen v Commission* (n 23) ninth plea.
[156] *Orlen Petrobaltic v Commission* (n 23) ninth plea.
[157] *OMV Petrom v Commission* (n 23) second plea.
[158] *Black Sea Oil & Gas v Commission* (n 23) seventh plea.
[159] *Orlen v Commission* (n 23) ninth plea.
[160] *Orlen Petrobaltic v Commission* (n 23) ninth plea.
[161] *Tenaz Energy Netherlands v Commission* (n 23).
[162] *RockRose (NL) CS1 v Commission* (n 23).
[163] *Vermilion Energy Netherlands and Others v Commission* (n 23).
[164] Case C-283/11 *Sky Österreich GmbH v Österreichischer Rundfunk* EU:C:2013:28, para 46.
[165] ibid para 34.
[166] Case 44/79 *Liselotte Hauer v Land Rheinland-Pfalz* EU:C:1979:290, paras 17-23.
[167] Joined Cases C-154/04 and C-155/04 *The Queen, on the application of Alliance for Natural Health and Others v Secretary of State for Health and National Assembly for Wales* EU:C:2005:449, paras 126-129.

unlawful.[168] Environmental protection is also a key EU objective, and Article 37 of the Charter requires a high level of environmental protection to be included in EU policies.[169]

Article 52(1) of the Charter allows these rights to be restricted if the restriction is set out in law, does not destroy the basic meaning of the rights, and is necessary and proportionate to a legitimate public interest. The EU's goals of achieving climate neutrality, protecting the environment and developing CO_2 storage infrastructure qualify as such public interests.

On Article 16, the obvious reply is that the NZIA does not prevent the applicants from continuing their oil and gas activities. It sets the conditions under which authorized producers must contribute to the infrastructure of the emerging CCS market. The obligation restricts commercial freedom without removing it. The companies also retain broad discretion over how they comply. As mentioned earlier, they can develop storage themselves, cooperate with other obligated entities, or contract with third-party operators, so the legal framework does not dictate how they organize their business. OMV Petrom's argument that Article 23 violates the basic meaning of a fundamental right is its strongest argument. However, the obligation applies only to companies that hold licenses to produce oil and gas. These licenses are granted by the State to allow companies to use natural resources. Therefore, Article 23 can be seen as a condition attached to this activity, rather than forcing companies to enter a completely different business. However, this seems less convincing for companies that received their licenses long before the NZIA was adopted. This is why some companies also argue that the law violates their legitimate expectations and applies new rules unfairly to existing licenses.

On Article 17, the key distinction is between deprivation of property and control of its use. Article 23 leaves ownership intact. No assets pass to the Union or to third parties, and no authorization is withdrawn. The provision regulates the use of economic resources for a legitimate public purpose. The storage infrastructure built under the NZIA remains owned and controlled by its operators, and it can earn revenue from storage services sold to capture operators.

The General Court is therefore likely to reject the claims. In sum, the obligation lawfully limits the freedom to conduct business and the right to property under Article 52(1). It imposes high costs but pursues objectives of general interest; it remains subject to proportionality review and leaves the essence of both rights intact. The applicants can continue their core business and keep ownership of their assets.

8 Equal Treatment and Non-Discrimination

The fourth main argument of the applicants is equal treatment. The principle of equal treatment requires the EU to treat similar situations the same way and different situations differently, unless an objective reason justifies otherwise.[170] Under Article 23, the key question is whether the EU has fairly distributed the obligation to provide CO_2 injection capacity among the companies concerned. The applicants challenge this distribution on four grounds. They question why the EU treats oil and gas producers differently from other industries, why it imposes the obligation on producers while

[168] Case C-101/12 *Herbert Schaible v Land Baden-Württemberg* EU:C:2013:661, paras 25-29 and 60-75.
[169] Charter (n 25) art 37; TEU (n 96) art 3(3).
[170] Case C-127/07 *Société Arcelor Atlantique et Lorraine and Others v Premier ministre and Others* EU:C: 2008:728, para 23 (*Arcelor*). Charter of Fundamental Rights of the European Union, art. 20; Case C-356/12 Glatzel, EU: C:2014:350, para. 43

exempting coal producers and non-EU suppliers, whether the rules sufficiently account for differences in geological conditions between Member States, and whether the chosen reference period treats companies fairly.

First, the applicants argue that Article 23 treats similar producers differently without objective justification. TotalEnergies[171] argues that the criteria for identifying the obligated entities create unjustified distinctions between producers in the same sector. OMV Petrom[172] argues that certain State-owned companies are exempted while private producers are fully covered. In their view, this unequal allocation distorts competition in the oil and gas sector for reasons unrelated to the Act's aims.

Second, OMV Petrom[173] and TotalEnergies[174] object that only oil and gas producers bear the burden. Coal producers, whose activities also cause large greenhouse gas emissions, are not required to contribute. Nor are non-EU producers that export oil and gas to the Union. EU producers therefore allegedly bear regulatory costs that many of their competitors do not, distorting competition in the internal market.

Third, Orlen (Cases T-719/25[175] and T-720/25[176]) argues that a uniform allocation key ignores large differences in geology and existing CCS infrastructure between Member States. Producers in Denmark and the Netherlands benefit from favorable offshore geology, existing pipelines and advanced storage projects. Producers in Poland face much higher costs because their country has fewer suitable formations and far less developed transport infrastructure. In Orlen's view, imposing the same obligation despite these structural differences amounts to unequal treatment. The argument has a maritime side. Poland's offshore potential lies in the Baltic, where the legal position under the Helsinki Convention remains unsettled, so Polish producers will likely need to store CO_2 in other States and ship it.

Finally, several applicants challenge the use of the 2020 to 2023 reference period. Nederlandse Aardolie Maatschappij[177] and Shell Italia[178] argue that past production does not necessarily reflect a company's current output, financial capacity, investment strategy or future role in the European energy market. A company whose production has fallen sharply remains bound by an obligation based on its earlier output, while more recent market developments are ignored. The applicants argue that the method therefore produces arbitrary and unfair results.

The case law also again favors the European legislator. The comparability of situations is assessed in the light of the subject matter and purpose of the act in question.[179] The Court gives the EU legislature considerable freedom to design environmental rules, particularly when they involve complex economic and technical choices. However, the legislature must use objective criteria when

---

[171] *TotalEnergies EP Danmark and Others v Commission* (n 23) second plea.
[172] *OMV Petrom v Commission* (n 23) fifth plea.
[173] ibid.
[174] *TotalEnergies EP Danmark and Others v Commission* (n 23) second plea.
[175] *Orlen v Commission* (n 23) tenth plea.
[176] *Orlen Petrobaltic v Commission* (n 23) tenth plea.
[177] *Nederlandse Aardolie Maatschappij v Commission* (n 23) fourth plea.
[178] *Shell Italia E&P v Commission* (n 23) second plea.
[179] *Arcelor* (n 172) paras 25-26.

distinguishing between companies in comparable situations. In *Arcelor*, which concerned the EU ETS, the Court accepted that the EU could introduce emissions trading rules gradually rather than apply them to every industry at once.[180] This is relevant to Article 23 because the EU may argue that it was entitled to impose the obligation to initially develop CO_2 injection capacity on oil and gas producers without extending it to every other industry. In *IATA and ELFAA*, the Court rejected a claim that airlines were treated unfairly compared with other forms of transport because their situations were not sufficiently comparable.[181]

Similarly, in the present cases, the Court must consider whether oil and gas producers are in a situation comparable to that of coal producers and non-EU suppliers. In *Schaible*, the Court confirmed that the EU may impose different obligations on different groups of companies if there is an objective reason for doing so.[182] An objective reason must be based on relevant facts and the legislation's aims, not an arbitrary preference for one group over another. Applied to Article 23, the EU may argue that oil and gas producers should contribute to CO_2 injection capacity because they have relevant geological data, technical expertise and financial resources. The key question is whether these characteristics provide a sufficient reason to impose the obligation on oil and gas producers but not on other groups, such as coal producers and non-EU suppliers. The applicants must show that the difference in treatment lacks an adequate justification.

The Commission can argue that the companies the applicants identify are not in comparable situations. Article 23 applies to holders of hydrocarbon authorizations because they have experience, geological data and technical expertise relevant to developing CO_2 storage. Coal producers, renewable energy companies and non-EU suppliers do not necessarily have the same characteristics or role. The Commission can also defend the 2020–2023 reference period as an objective and verifiable basis for allocating obligations. Although historical production may affect companies differently, the legislature was entitled to adopt a common method.The applicants invoke the polluter-pays principle, under which operators should not bear the costs of eliminating pollution to which they have not contributed. In Standley, the Court recognized this principle as a requirement of proportionality.[183] The Commission can respond that Article 23 does not impose liability for past emissions but establishes a forward-looking obligation to develop storage infrastructure. Moreover, Commune de Mesquer indicates that EU law may impose certain pollution-related costs on a producer whose product contributed to the risk of pollution.[184] It can also argue that differences in geological conditions do not, by themselves, establish unequal treatment, since companies may contribute to storage capacity anywhere in the Union.

9 Conclusion

The NZIA and its Chapter III open a new window to CCS deployment across Europe. The financial incentives remain, but they are now joined by the strongest obligation ever created for private

[180] ibid paras 57-61.
[181] Case C-344/04 *The Queen, on the application of International Air Transport Association and European Low Fares Airline Association v Department for Transport,* EU: C:2006:10, paras 93-99.
[182] *Schaible* (n 170) paras 76-77 and 91.
[183] Case C-293/97 *The Queen v Secretary of State for the Environment and Ministry of Agriculture, Fisheries and Food, ex parte HA Standley and Others and DGD Metson and Others* EU: C:1999:215, paras 51-52. For the applicants' reliance on the principle, see *OMV Petrom v Commission* (n 23) fourth plea and *Black Sea Oil & Gas v Commission* (n 23) fifth plea.
[184] Case C-188/07 *Commune de Mesquer v Total France SA and Total International Ltd* EU: C:2008:359, paras 77-78 and 82.

companies to deploy CCS storage infrastructure. The EU claims to regulate its internal market by obliging 44 oil and gas producers to make 50 million tonnes of annual CO_2 injection capacity available by 2030. The cross-border nature of geological storage, which in practice means storage under the seabed of a few coastal States, together with the risk of divergent national approaches, gives the measure a credible link with the internal market. The obligation has been challenged by some of these entities on the grounds of its legal basis, fundamental rights, and equal treatment. An analysis of existing laws and cases shows that the legislature has broad discretion in complex technical and economic fields. The core of companies' freedom to run a business, or their property rights, is not (at least clearly) violated, as Article 23 gives companies some flexibility in meeting their obligations. The Act's weak point lies in proportionality and feasibility. A fixed deadline of 31 December 2030 sits uneasily with the years needed to explore, permit and build offshore storage under the CCS Directive and to organize shipping and cross-border arrangements under the London Protocol and other regional marine agreements. Article 23 allows exceptions when demand for CO_2 storage is low, but not when projects face delays in permits, construction, or amendments to international agreements. The Court is unlikely to find that deadline clearly unreasonable. A more likely outcome is that the Court upholds Article 23 but finds mistakes in how the Commission selected the companies required to contribute or calculated their obligations. Whatever the outcome, the judgments will shape the pace of CCS deployment in Europe. They will also show how far EU law can go in requiring private companies to build the physical infrastructure of a net-zero economy, much of which will lie at sea.

Abbreviations

CCS	Carbon capture and storage
CCU	Carbon capture and utilization
CDR	Carbon dioxide removal
EEA	European Economic Area
EU ETS	EU Emissions Trading System
IEA	International Energy Agency
IPCC	Intergovernmental Panel on Climate Change
NZIA	Net-Zero Industry Act
TEU	Treaty on European Union
TFEU	Treaty on the Functioning of the European Union
UNCLOS	United Nations Convention on the Law of the Sea