# 2025

# Article 23 Member State Implementation Tracker

## Assessing Member State Measures to Enable and Enforce Oil and Gas Producers' Article 23 Obligation under the NZIA

**BELLONA** REPORT


**Address**

Rue Breydel 42,
1040, Brussels, Belgium

**Online**

Email : europa@bellona.org
Website : eu.bellona.org


BELLONA

# DISCLAIMER



Authors:
**William Druet**
**Asia Taylor**
**Clara Axblad**
**Hanna Biro**
**Tom Mikunda**
**Fabian Liss**

Co-funded by the European Union
Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.

Content Editing & Design:
**Rebecka Larsson**
**Alissia Bourguignon**

# TABLE OF CONTENTS

# INTRODUCTION

Article 23 of the Net Zero Industry Act (NZIA) establishes an EU-wide obligation for oil and gas producers: by 2030, **44 obligated entities must develop 50 million tonnes of $CO_2$ injection capacity per year. While the obligation rests on oil and gas producers, Member State governments play a central role in enabling and enforcing its delivery.** They are responsible for ensuring that the national legal, administrative, and regulatory frameworks required under the NZIA are in place so that obligated entities can develop injection capacity on time. This includes establishing single points of contact for project promoters, providing a centralised online permitting portal, offering administrative support, granting priority status to strategic projects, applying streamlined permitting deadlines for $CO_2$ storage sites, ensuring transparent publication of geological data and annual reports, removing barriers to access to $CO_2$ transport infrastructure, and adopting penalties for non-compliance (Articles 6, 7, 8, 15, 16, 21, 22 and 23 of the NZIA).

**The 50 $MtCO_2$ annual injection capacity obligation is divided among 11 Member States in which the obligated oil and gas entities are registered: Ireland, France, the Netherlands, Italy, Austria, Germany, Denmark, Croatia, Hungary, Poland, and Romania.** These countries are directly responsible for enforcing Article 23, and **their progress towards complying with the NZIA's requirements for Member State governments also determines whether the EU can meet its 2030 injection-capacity target.** They're also responsible for putting in place the enabling measures required under the NZIA.[1]

**This first edition of the report focuses on these 11 Member States because they hold both enabling and enforcement responsibilities.** However, all EU Member States must comply with the NZIA's enabling requirements, regardless of whether obligated entities are registered in their territory.

1 For a detailed overview of the respective responsibilities of obligated oil and gas entities, Member State governments, and the European Commission, consult our Article 23 Explainer here.

$CO_2$ injection capacity contributing to the Article 23 obligation can be developed anywhere in EU territory, provided national legislation permits geological storage. This makes progress made in implementing the enabling frameworks in Member States without obligated entities registered on their territory also relevant for delivering the EU-wide target. As more countries move toward hosting $CO_2$ storage projects, future editions of this tracker will expand to include additional Member States.

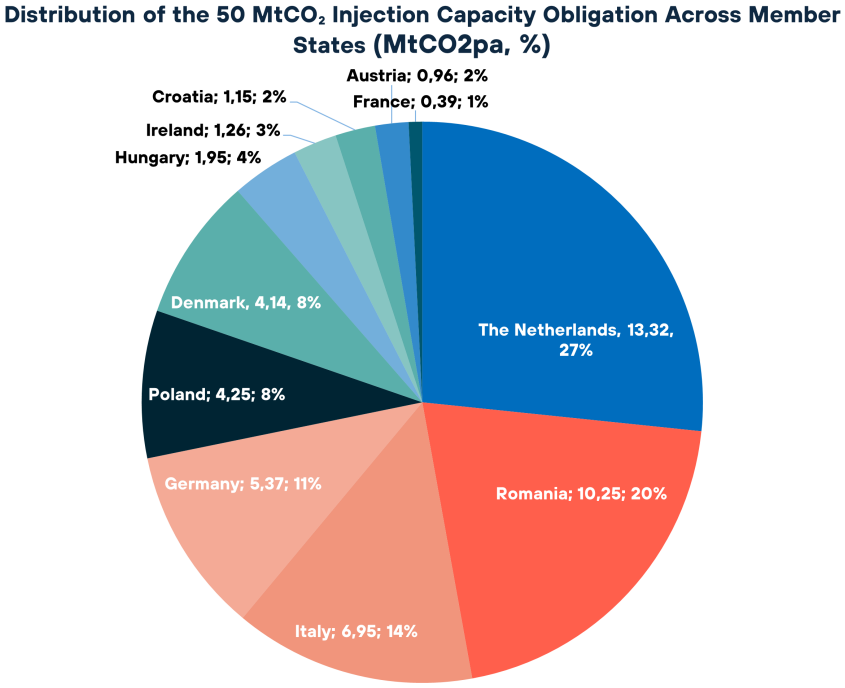


Figure 1: Distribution of the 50 $MtCO_2$ Injection Capacity Obligation Across Member States ($MtCO_2$pa, %)

This report applies the methodology published on our website and summarised here. It assesses each of the 11 Member State governments' implementation of 7 enabling and 1 enforcement criteria required by the NZIA: 1) single points of contact (SPOC); 2) centralised online access; 3) administrative support; 4) priority/public-interest status; 5) permit-granting duration; 6) storage transparency and annual reporting; 7) $CO_2$ transport infrastructure and access; and 8) penalties. **These criteria reflect the legal, institutional, and procedural requirements that determine whether Member State governments effectively enable and enforce the timely delivery of the injection capacity obligation.** The methodology aims to provide an objective, evidence-based assessment of the fulfilment of these criteria.

Findings are based exclusively on information and data available online at the time of writing the present report (November 2025), including national legislations, ministry and agency portals, national geological surveys, Article 21 annual reports, and other official sources. Where information is missing or incomplete, this is documented transparently. If readers are aware of additional or more up-to-date information not reflected in this report, we warmly invite them to contact us so we can incorporate it into future updates.

**Based on the findings below, we observe that across the 11 Member States implementation progress is rather uneven.** Some countries, such as the Netherlands and Denmark have advanced national legal, administrative, and regulatory frameworks, while others have yet to establish administrative requirements such as single points of contact or national permitting timelines. In most Member States, national legislation governing $CO_2$ transport either does not yet exist or is still under development, with

many countries working on draft acts or preparing forthcoming laws. As much of the $CO_2$ infrastructure required to decarbonise Europe's harder-to-abate industries will need to operate across borders, connecting capture sites, hubs, and storage locations in different parts of Europe. Designing such systems requires careful attention to cross-border interoperability, shared technical standards, and coordinated regulatory frameworks. The European Commission is expected to propose a $CO_2$ infrastructure and market regulation in the first half of 2026, which is likely to provide the foundation for national frameworks, clarify third-party access rules, and establish fair, transparent, and harmonised market conditions across the EU.

Nearly half of the 11 Member States have submitted comprehensive Article 21 reports making valuable geological data public, while the rest provide only partial or minimal information. As Member States are not required to have their Article 23 penalty regimes in place until 30 June 2026, gaps in enforcement measures at this stage are expected and do not indicate non-compliance. Overall, the current picture suggests that while implementation is underway, significant gaps remain.

This report was prepared by Bellona Europa in the framework of the Article 23 project (article23watch.eu), with the aim of improving transparency and accountability around the implementation of the oil and gas injection-capacity obligation under Article 23 of the NZIA. For assistance in understanding how to read and navigate this report, consult our detailed methodology here.

The Article 23 project is a joint initiative by Bellona Europa, Clean Air Task Force, and Carbon Balance Initiative to monitor and support the implementation of NetZero Industry Act (NZIA)'s Article 23 through transparency and accountability.

**Without urgent national action to put the NZIA's required frameworks in place, the EU risks missing its 2030 $CO_2$ storage target.**

# The Netherlands

| Criteria | Findings |
|---|---|
| **Criterion 1: Single points of contact (SPOC)** | |
| Designation and accessibility | The designated SPOC for NZIA implementation in the Netherlands is **the Netherlands Enterprise Agency (RVO)**, which operates under the Ministry of Economic Affairs and the Ministry of Climate and Green Growth.<br><br>An official RVO webpage (last updated Oct 2025) provides an overview of the NZIA and the Critical Raw Materials Act, including a **dedicated contact email**: vergunningcrma_nzia@rvo.nl.<br><br>The page is available in Dutch and directs applicants to the national permitting portal for further steps. |
| Functionality | RVO assists developers in determining whether their activities **qualify as Strategic Net-Zero Projects** and provides information and links related to permitting. Companies may submit NZIA-related queries directly to RVO.<br><br>Tools like 'Vergunningcheck' and 'Verken uw idee' assist applicants in determining the required permits and enable early discussions of project concepts with the relevant authorities. |
| The Netherlands has a clearly designated, accessible SPOC with functional digital tools. However, the page remains largely descriptive and should provide more NZIA-specific operational guidance. | |
| **Criterion 2: Centralised online access** | |
| Existence and accessibility | RVO hosts a dedicated webpage containing a short description of NZIA and links to government permitting platforms. The content is accessible but limited in scope (see criterion 1). |
| Functionality | The permitting website **Omgevingswet** enables project developers to identify required permits and request tailored assistance from authorities. No financing information or business support services are provided on the NZIA section of the RVO website. |
| A central online access point exists, and permitting tools are mature. However, coverage is incomplete, particularly regarding NZIA-related financing streams. | |
| **Criterion 3: Administrative support** | No publicly available information identifies **dedicated administrative support** services for NZIA project developers. |
| This requirement is **not met** due to the absence of explicit administrative assistance mechanisms. | |
| **Criterion 4: Priority/public-interest status** | |
| Applicable to CCS | Large energy projects - including **mining activities for geological $CO_2$ storage and associated pipelines** - are granted **planning priority** under the **Projectprocedure**, coordinated by the Ministry of Climate and Green Growth. |

| | |
|---|---|
| Appropriate handling | The Projectprocedure portal outlines all planning phases and offers a registration form for applicants. |
| The Netherlands provides a robust fast-tracking mechanism for CCS projects, clearly **aligning with NZIA expectations** for priority status. | |
| **Criterion 5: Per-min-granting duration** | Under **Article 31c(3)** of the Mining Act, the Minister of Economic Affairs must evaluate a geological $CO_2$ storage permit **within 10 months** of receiving a complete request. Article 31c(4) permits **a single extension of 6 months.**<br><br>Other CCS elements falling under **the Projectprocedure** - such as pipelines or capture sites - must receive a planning decision **within 26 weeks** (excluding document preparation and appeals). |
| Permit timelines are clearly defined in national legislation; storage permits have a transparent maximum duration that **aligns with NZIA time-limit expectations**. | |
| **Criterion 6: Storage transparency & annual reports** | |
| Transparency | Storage-related data are expected to be made available via the NLOG website, managed by the Geological Survey of the Netherlands. NLOG already publishes information on $CO_2$ storage, geothermal and hydrocarbon production licenses, though NZIA-specific transparency requirements are not yet implemented. Moreover, the Geological Survey of the Netherlands prepared the first report to comply with the NZIA, assessing the potential for geological storage in the Netherlands |
| Annual report publication | The annual report has been published on time. |

| | |
|---|---|
| Adequacy & accuracy of content | The report is comprehensive and builds on previous geoscientific studies. It reviews national support mechanisms, including:<br>• **SDE++ subsidy scheme** (bridging ETS–cost gaps for CCS)<br>• **DEI** grants for innovation and pilots<br>• **MIEK** and **Projectprocedure** designations<br>• **National $CO_2$ tax** supporting decarbonisation incentives<br><br>Cross-border cooperation initiatives are also detailed.<br><br>In addition, the report estimates practical offshore $CO_2$ storage capacity in depleted gas fields at ~1260–1750 Mt, across 46-124 potential sites. Ongoing CCS projects (Porthos and Aramis) could collectively provide up to 24,5 Mt $CO_2$ of annual injection capacity, nearly half of the NZIA 50 Mt target. |
| The Netherlands shows strong geological data transparency and has delivered a robust, detailed NZIA-aligned annual report. | |
| **Criterion 7: Transport infrastructure & access** | |
| Legal framework | The EU CCS Directive was fully transposed into the Mining Act (2011); secondary regulations are included in the Mining Decree and Mining Regulation. Translations are available via NLOG. |
| Fair third-party access rules | **Article 32** of the Mining Act mandates **non-discriminatory, transparent, and reasonable** access to $CO_2$ transport and storage infrastructure. Enforcement is overseen by **the State Supervision of Mines (SodM).**<br><br>No additional detailed regulatory framework for third-party access to pipelines and storage sites is currently in place. |
| Cross-border coordination | The Netherlands actively coordinates infrastructure planning through MoUs with **Norway, Belgium, and Denmark**. |
| The legal framework meets minimum EU requirements with strong enforcement. However, the absence of detailed third-party access regulation indicates partial fulfilment of NZIA ambitions. | |
| **Criterion 8: Penalties** | |
| Adoption & scope | As of 2025, the Netherlands has not published details of a penalty regime for failure to meet $CO_2$ injection targets. |
| Effectiveness, proportionality, dissuasiveness | Not assessable. |
| The criterion is currently **unmet**, pending establishment of a clear NZIA-aligned penalty framework. | |

# Romania

| Criteria | Findings |
|---|---|
| **Criterion 1: Single points of contact (SPOC)** | |
| Designation and accessibility | The competent authority for $CO_2$ storage in Romania is the **National Agency for Mineral Resources and Geological Storage (NRAMPGS)**, which manages storage-related authorisations. However, **no dedicated NZIA SPOC** (email, phone, contact point or service window) has yet been identified for project promoters. |
| Functionality | Given the absence of a designated SPOC, **functionality cannot be assessed** (e.g., responsiveness, available guidance, or procedural assistance). |
| Although Romania has designated an authority responsible for $CO_2$ storage authorisations, it has not put in place a functional NZIA Single Point of Contact. Therefore, the criterion is **not met.** | |
| **Criterion 2: Centralised online access** | |
| Existence and accessibility | There is **no evidence** of a dedicated Romanian NZIA centralised online portal or "one-stop shop" for net-zero strategic project procedures. |
| Functionality | Without a centralised platform, functionality (e.g., integrated permitting, online services, guidance, financial information) **cannot be assessed.** |
| This criterion is **not met**, as Romania lacks a dedicated, publicly accessible NZIA centralised access point. | |
| **Criterion 3: Administrative support** | There is **no documented administrative support scheme** (e.g., project assistance, help-desk, standardised guidance, or simplified procedures) for NZIA project developments in Romania. |
| Administrative support mechanisms are **absent.** The criterion is **not met**. | |
| **Criterion 4: Priority/public-interest status** | |
| Applicable to CCS | No evidence indicates that Romania has adopted a legal or administrative mechanism granting **strategic or priority project status** to CCS activities under NZIA. |
| Appropriate handling | Without such designation, fast-track procedures or prioritised handling **cannot be assessed**. |
| The criterion is **not met**, as priority and public-interest status frameworks for CCS under NZIA are **not in place.** | |
| **Criterion 5: Permin-granting duration** | No publicly available information outlines **permit-processing timelines** for CCS or NZIA-relevant authorisations in Romania. |
| The criterion is **not met**. | |
| **Criterion 6: Storage transparency & annual reports** | |

| | |
|---|---|
| Transparency | Romania submitted its **2024 NZIA Article 21 report**, prepared by NRAMPGS.<br>The report provides:<br>• geological maps and structural data,<br>• identification of **multiple storage-suitable formations**, including depleted fields and saline aquifers,<br>• capacity estimates for identified structures.<br><br>Some geological or reservoir-level information is classified as "**sensitive data**" under national law and available **only upon request**, limiting full public transparency. |
| Annual report publication | The 2024 Article 21 report has been published. |
| Adequacy & accuracy of content | The report includes:<br>• confirmation of legal permissibility of $CO_2$ storage,<br>• an inventory of suitable geological formations across large portions of the territory,<br>• mapping of saline aquifers and depleted hydrocarbon reservoirs,<br>• information on regional emission sources and potential $CO_2$ supply,<br>• references to storage-site authorisations handled under national legislation.<br><br>However, the unavailability of some data to the public reduces completeness, and geological accuracy cannot be independently verified. |
| Romania **partially meets** NZIA reporting obligations, as **data restrictions** limit transparency. | |
| **Criterion 7: Transport infrastructure & access** | |
| Legal framework | There is **no dedicated national legal framework** explicitly regulating **$CO_2$ transport pipelines**.<br>Existing legislation primarily covers **natural gas** infrastructure, and expert assessments note that $CO_2$ transport regulation still needs to be developed. |
| Fair third-party access rules | Romania has **no established third-party access rules** specific to $CO_2$ transport or storage. Existing gas-sector rules do not apply to $CO_2$ infrastructure. |
| Cross-border coordination | There is **no public evidence** of cross-border $CO_2$ transport agreements or pipeline development involving Romania. However, according to the 2024 annual report, Romania actively participates in regional and European initiatives to facilitate cross-border $CO_2$ transport. For instance, energy sector operators are exploring collaboration opportunities with neighboring countries to develop shared transport and storage infrastructure. |

| | |
|---|---|
| The regulatory environment for $CO_2$ transport and access is **not yet developed**, and the criterion is **not met**. | |
| **Criterion 8: Penalties** | |
| Adoption & scope | Romania has **not introduced NZIA-related penalties** for failure to meet $CO_2$ injection obligations. |
| Effectiveness, proportionality, dissuasiveness | Without an established penalty regime, assessment is not possible. |
| No penalty framework exists; the criterion is therefore **unmet**. | |

# Italy

| Criteria | Findings |
|---|---|
| **Criterion 1: Single points of contact (SPOC)** | |
| Designation and accessibility | Italy has **not yet designated an official SPOC** for NZIA projects. The European Commission's list of national one-stop contacts lists Italy as **"None currently"**, confirming that Italy missed the **30 December 2024** deadline for SPOC designation.<br><br>Under Italy's existing CCS framework (Legislative Decree 162/2011), the Ministry of Environment and Energy Security (MASE) is the competent authority for $CO_2$ storage. All CCS-related permits (exploration licences and storage concessions) are submitted to MASE.<br><br>MASE coordinates evaluation through a specialised **CCS Committee** **(Comitato CCS – established by Art. 4 of the LD)**, composed of experts from multiple technical bodies (MASE's mining directorates, ISPRA, UNMIG, etc.), effectively providing a single administrative interface even though this is **not a formal NZIA SPOC**. |
| Functionality | While Italy has a centralised CCS permitting structure under MASE, a formally designated NZIA-compliant SPOC with a dedicated contact channel has not yet been established. Standard MASE contact points are provided on the Ministry website. |
| Italy has an operational central CCS authority but **does not yet meet** the NZIA formal **SPOC requirement.** | |
| **Criterion 2: Centralised online access** | |

| | |
|---|---|
| Existence and accessibility | Italy does **not** yet have an NZIA-compliant **centralised digital one-stop portal** integrating all net-zero permitting information.<br><br>In December 2024, MASE launched a **general permitting portal** for single authorisation procedures. The system currently includes electrochemical storage projects and is expected to integrate all permitting services by 2026. However, **CCS is not included as of November 2025**.<br><br>Information on CCS permitting remains spread across:<br><br>• the MASE "**Cattura e stoccaggio del biossido di carbonio**" section (CCS section),<br>• legal resources and FAQs,<br>• BUIG (Bollettino Ufficiale degli Idrocarburi e delle Georisorse) for official announcements (e.g., **Ravenna CCS Phase 1** approval on 31 January 2023),<br>• geological data systems, including the **ViDEPI** archive and the **MASE-managed storage database** mandated by Art. 6 of the CCS decree. |
| Functionality | The absence of a fully integrated online portal means **application submission, guidance, and status tracking** are still fragmented. |
| Italy provides substantial online information but does **not yet meet NZIA Article 7**, as no integrated one-stop digital platform exists. | |

| | |
|---|---|
| **Criterion 3: Administrative support** | Italy has internal administrative structures supporting CCS, primarily through:<br>• the **CCS Committee**, and<br>• the **Technical Secretariat (Segreteria Tecnica CCS)** of 11 experts established under Legislative Decree 162/2011.<br>These bodies provide coordinated administrative and technical support for evaluating applications and ensuring procedural consistency. MASE also provides FAQs and contact points for CCS enquiries.<br><br>However, Italy lacks:<br>• a **dedicated support service** for NZIA project promoters (as foreseen by Article 8),<br>• clear public-facing advisory tools beyond general documentation. |
| Italy provides coordinated internal support for CCS but lacks proactive, outward facing administrative assistance expected under NZIA. | |
| **Criterion 4: Priority/public-interest status** | |
| Applicable to CCS | Italy currently has **no explicit legal designation** granting CCS projects priority or public-interest status. The 2011 CCS decree focuses on regulatory procedures and safety, without granting strategic or fast-track status.<br><br>Nonetheless:<br>• MASE acknowledges CCS as critical for decarbonising hard-to-abate sectors.<br>• Italy's **June 2025 enabling law** aims to fill regulatory gaps and explicitly recognises CCS as strategically important (see criterion 7). |
| Appropriate handling | Despite strategic rhetoric, CCS projects are still subject to **standard permitting procedures** without statutory acceleration or priority handling. |
| This criterion is **unmet**, as CCS lacks formal priority/public-interest status. | |

| | |
|---|---|
| **Crite-rion 5: Per-** | Italian law does not establish **binding statutory decision deadlines** for CCS permitting that align with NZIA requirement.<br><br>Legislative Decree 162/2011 defines procedural steps (including CCS Committee review and EIA requirements) but no maximum duration for permit decisions.<br><br>The example of **Ravenna CCS Phase 1** shows:<br>• 2–3 years from project proposal to full authorisation,<br>• ENI's concept emerged around 2020,<br>• Storage concession granted **January 2023**.<br><br>Industrial stakeholders (e.g., **ANIE**, September 2025 hearing) have publicly urged Italy to adopt NZIA-aligned timelines, confirming non-compliance. |
| Italy **does not meet NZIA permit-duration requirements**, and timelines remain unclear. | |
| **Criterion 6: Storage transparency & annual reports** | |
| Trans-parency | Italy provides **extensive public information** on $CO_2$ storage through:<br>• a dedicated NZIA transparency section on the MASE site - Art.21a) & b),<br>• the national $CO_2$ storage database (Art. 6 CCS decree),<br>• the ViDEPI petroleum data archive.<br>These repositories include well logs, geological reports, seismic data, and reservoir information. |

| | |
|---|---|
| Annual report publication | Italy submitted its first annual report in 2024, available publicly via the Commission's website. Key findings:<br>**1) Identification of 13 offshore** depleted gas fields (mainly in the Adriatic) as potential storage sites under the CCS decree (~500 Mt total storage capacity).<br>2) Extensive data collected through ViDEPI, with decades of operator-reported geological data; updates for 2014–2021 are underway.<br>**3) Mapping of CCS projects**, including Ravenna Phase 1 (~25,000 t/yr pilot) and Phase 2 (~4 Mt/yr by 2030).<br>4) Summary of supporting measures, industrial demand surveys gauging demand for the Ravenna hub (61 companies, 172 sites), and national strategy alignment. |
| Adequacy & accuracy of content | Italy provides one of the **most comprehensive** geological-data and reporting structures in the EU. While some ViDEPI data require updates, transparency is high. Annual updates will be required to maintain compliance. |
| Italy **meets** NZIA requirements, offering a strong model for data publication and reporting. | |
| **Criterion 7: Transport infrastructure & access** | |

| | |
|---|---|
| Legal frame-work | On **10 October 2025**, MASE adopted a **Ministerial Decree** **on $CO_2$ pipeline technical rules**, published **28 October 2025[2].** The decree establishes:<br>• technical design and safety criteria,<br>• interoperability requirements for future $CO_2$ networks,<br>• pipeline route requirements and pumping-station rules.<br>Italy is also preparing to assign regulatory authority to **ARERA**, under the draft **DL Energia 2025**:<br>• ARERA will regulate $CO_2$ pipeline and storage services,<br>• define tariffs and access conditions,<br>• set metering rules for emissions-accounting consistency.<br><br>In addition, in June 2025, the Council of Ministers approved a **draft delegation law to adopt a new framework for CCS, hydrogen, and the reduction of methane emissions in the energy sector**. In short (for CCS):<br><br>1. Alignment with PNIEC (climate plan), **CCS must complement renewable energy and energy efficiency measures** to reduce $CO_2$ emissions in:<br>- Hard-to-abate industries (steel, cement, ceramics, chemicals, refining, glass, paper)<br>- Waste-to-energy plants<br>- Thermoelectric sector<br>- Production of low-carbon gases and hydrogen<br>- Direct air capture and bioenergy with CCS (BECCS)<br>**2. Regulatory Oversight**:<br>- ARERA will regulate transport via pipeline networks and geological storage, as these are natural monopolies<br>- ARERA will define access conditions, tariffs, and enforce transparency and non-discrimination<br>3. Infrastructure Development:<br>- Approval process for CCS infrastructure plans must **consider economic efficiency and decarbonisation goals**<br>- Rules for unbundling activities to avoid cross-subsidies and ensure neutrality<br>4. Administrative Simplification:<br>- **Single permitting procedure for CCS activities**, including environmental compatibility (AIA, VIA)<br>- For storage, the procedure includes site concession<br>- Coordination and cleanup of outdated laws for coherence<br>**5. Safety and Liability**:<br>- Define responsibilities and liabilities across the CCS value chain<br>- Establish technical standards for quality and safety<br>6. No new public spending; activities must use existing resources.<br>**7. Public Interest Status**<br>- CCS is explicitly linked to national and EU climate neutrality goals<br>- CCS infrastructure development is considered strategic for industrial decarbonisation and energy security<br>- Hydrogen corridors and CCS projects align with Projects of Common Interest (PCI) at EU level<br><br>References:<br>Draft delegation law<br><br>Explanatory report<br><br>Technical & regulatory analysis |

2 see press article here for more info.

| | |
|---|---|
| Fair | Legislation is not yet in force, but Italy is **actively developing** a regulated access framework consistent with NZIA Article 22.<br>In practice:<br>• the **Ravenna CCS hub** is conceived as an **open-access**, multi-user $CO_2$ network,<br>• The 61 expressions of interest show strong regional demand for $CO_2$ storage provided by the Ravenna CCS hub. |
| | Italy participates in several cross-border $CO_2$ infrastructure initiatives:<br>• 2025 **PCI/PMI selections** under TEN-E:<br>○ *Callisto Mediterranean $CO_2$ Network*<br>○ *Prinos $CO_2$ Storage*<br>• 2023 Mediterranean CCS Strategic Plan with **France and Greece**<br>• Ongoing bilateral cooperation, including provisional application of the **London Protocol (2009 amendment)**<br>• 2025 draft delegation law includes measures to integrate CCS with European climate and infrastructure frameworks. |
| Italy is **currently developing** a full regulatory and cross-border $CO_2$ transport framework, but key components (ARERA rules, access tariffs) are **not yet fully enacted**. | |
| **Criterion 8: Penalties** | |
| Adoption & scope | As of 2025, Italy has not published a penalty framework for **non-compliance with $CO_2$ injection obligations** under NZIA. |
| Effectiveness, proportionality, dissuasiveness | No assessment is possible in the absence of such a regime. |
| This criterion is **unmet**, as the penalty framework is not yet in place. | |

# Germany

| Criteria | Findings |
|---|---|
| **Criterion 1: Single points of contact (SPOC)** | |
| Designation and accessibility | The **Federal Ministry for Economic Affairs and Energy (BMWi)** provides an online tool listing **16 SPOCs**, one for each German state (Länder).<br>The SPOC directory is accessible via the NZIA dossier on the Ministry's website and offers contact details for regional authorities responsible for NZIA-related questions.<br><br>However, the **quality and completeness of the information vary by state**:<br>• Some entries provide only a **generic email address** with no further explanation.<br>• Certain states (e.g. **Mecklenburg-Vorpommern**) appear to be **missing entirely**.<br>• **CCS is not explicitly mentioned** in most SPOC descriptions (an exception is Berlin, which is a city-state and unlikely to host large-scale CCS projects). |
| Functionality | Because each SPOC is defined at state level, **functionality and service level differ by Land**:<br>• The **institutional level** varies (from ministerial departments to district-level authorities).<br>• Most entries provide **only a basic contact (email)** without details on services, procedures, or guidance.<br>• Linked regional pages rarely include detailed explanations on permitting processes, support mechanisms or NZIA procedures.<br>For international users, some additional English-language information on NZIA and contact points is available through **Germany Trade & Invest (GTAI)**. |
| Germany formally lists multiple SPOCs, but **implementation is fragmented and CCS-specific support is weak**, so the NZIA SPOC criterion is only **partially met**. | |
| **Criterion 2: Centralised online access** | |
| Existence and accessibility | Germany operates a **central NZIA information portal** on the Federal Ministry's website. |

| | |
|---|---|
| Functionality | The central portal provides **partial coverage** of NZIA Article 7 requirements:<br><br>• **Single points of contact:**<br>Linked, but only partially complete and differing in quality across states (see Criterion 1).<br>• **Permit-granting process & dispute settlement:**<br>The portal links to a **PDF guidance document** on strategic projects and valleys. However, **specific information on dispute-settlement procedures are missing**.<br>• **Financing and investment services:**<br>The portal includes **basic information on funding schemes** and links to Union and national-level support instruments, however these are mainly **lists of URLs**, with limited explanatory content.<br>• **Details of funding possibilities (EU & national):**<br>Present in outline form, but mostly as **external links**, not an integrated funding navigator.<br>• **Business support services:**<br>No dedicated section appears to provide **business development or advisory services** for NZIA projects. |
| Germany has a **central NZIA information hub**, but it **falls short of a fully integrated one-stop digital portal** with comprehensive guidance, application handling and dispute-settlement information. | |
| **Criterion 3: Administrative support** | No comprehensive, publicly available information details **administrative support services** specifically for CCS projects (e.g. dedicated facilitation, case managers, structured guidance for project developers). |
| The existence of administrative support for NZIA projects **cannot be confirmed**; the criterion is **not met** based on available information. | |
| **Criterion 4: Priority/public-interest status** | |
| Applicable to CCS | Under the **German Carbon Storage and Transport Law (KSpTG)**, NZIA projects, including CCS, are classified as being of **overriding public interest (**überragendes öffentliches **Interesse)**. This designation provides CCS projects with a **strong legal basis** to be prioritised in planning and permitting. |
| Appropriate handling | The KSpTG will enable detailed legal provisions and prioritisation rules; these will be further specified in **secondary legislation and ordinances expected by 2026**. |
| This criteria is met, as Germany is **recognising CCS as overriding public interest.** | |

| | |
|---|---|
| **Criterion 5: Permit-granting duration** | Germany's **KSpTG** does **not** explicitly adopt the NZIA **18-month maximum** for permit-granting. However, it introduces a package of measures intended to **accelerate procedures** and could, in practice, help meet NZIA timelines:<br><br>• **Alignment with existing energy law**:<br>Pipeline planning approval procedures are based on the **Energy Industry Act** and incorporate recent acceleration measures (e.g. streamlined hearings, faster handling of plan amendments and modifications prior to completion).<br>• **Priority handling**:<br>$CO_2$ pipeline projects are given **priority over other projects**, even when those are also in the public interest.<br>• **Project manager**:<br>Authorities may appoint **project managers** to coordinate and speed up procedures (§ 4a(1) sentence 6 KSpTG).<br>• **Streamlined legal remedies**:<br>Legal challenges are brought **directly before the higher administrative court** (§ 39a KSpTG), mirroring rules in the Energy Industry Act (§ 43e).<br>• **Deadlines for environmental information**:<br>Competent authorities must provide environmental information within **six months**, and for specific aspects within **two months** (§ 5(5) KSpTG).<br>• **Simplified permit procedures**:<br>In some cases, projects may use a **simplified permitting procedure** without full public participation (§ 4(5) KSpTG).<br>• **Early construction start**:<br>**Early commencement of construction** is possible where public interests are protected (§ 4a(3) KSpTG).<br>• **Repurposing of gas pipelines**:<br>The law facilitates **conversion of existing gas pipelines** for $CO_2$ transport (§ 4a(2) KSpTG).<br>• **Monitoring and digitalisation**:<br>Requirements for **monitoring, geodata provision and digital processes** aim to make permitting more efficient (§ 4a(1) Nos. 7, 9 KSpTG) |
| Germany has **not codified the NZIA 18-month cap**, but the KSpTG includes numerous acceleration tools. Compliance with NZIA timelines will depend on implementation practice rather than strict legal deadlines. | |
| **Criterion 6: Storage transparency & annual reports** | |

| | |
|---|---|
| Transparency | The **KSpTG provides** the legal framework for **large-scale $CO_2$ storage** (including onshore storage via state "opt-in" and offshore sites). Data transparency is governed by the **Geology Data Act (Geologiedatengesetz)**, in particular §§ 18–21 and 23–30. The **Federal Institute for Geosciences and Natural Resources (BGR)** is responsible for implementing data-related tasks and making information available. |
| Annual report publication | Germany submitted its **NZIA Article 21 report on time**. However, because CCS is **still effectively banned**, the report mainly covers **planning-phase information**. |
| Adequacy & accuracy of content | The report includes:<br>• A **list of demonstration/first-of-a-kind (FOAK) projects**, with initial data on potential $CO_2$ volumes for a future German $CO_2$ network.<br>• A **comprehensive list of cross-border CCS projects** involving Germany.<br>• A description of **national support measures**, including:<br>  ○ the **Contracts for Difference scheme (KSV)** for climate protection,<br>  ○ the **Federal Industry and Climate Protection Investment Programme (BIK)**.<br><br>Limitations and gaps include:<br>• **No assessment** of transport capacity vs. capture and storage needs (data not yet available).<br>• **No discussion** of non-discriminatory access implications in the cross-border context.<br>• $CO_2$ capture-related goals are **mentioned**, but comprehensive data are missing due to the absence of a final **carbon management strategy**. |
| Germany has **met formal reporting obligations**, but the content reflects an early planning stage and limited CCS deployment; transparency should improve once KSpTG and related strategies are fully implemented. | |
| **Criterion 7: Transport infrastructure & access** | |
| Legal framework | The **KSpTG** (regulating $CO_2$ storage and transport) has been adopted at the **end of 2025**. Strategic infrastructure questions, including optimal network design and capacity planning, will be detailed in a **national Carbon Management Strategy.** |
| Fair third-party access rules | The KSpTG provides for **non-discriminatory access** to national $CO_2$ transport networks and storage sites, in line with NZIA Article 22. An important exception is that **$CO_2$ from German coal-fired power plants may not be transported via the German $CO_2$ network**. |

| | |
|---|---|
| Cross-border co-ordination | Due to the still-evolving legal framework, there are **no formal MoUs** or binding cross-border agreements specifically dedicated to CCS infrastructure. However, Germany participates in several **regional and international initiatives**, including:<br>• **North Sea Basin Task Force (NSBTF):** a regional cooperation with Denmark, the Netherlands, Norway and the UK on offshore $CO_2$ storage options, geological data exchange and infrastructure planning.<br>• Membership in the **Clean Energy Ministerial (CEM)** CCS-related initiatives. |
| Transport and access rules are being established under KSpTG, and regional cooperation is active, but **the legal framework is not yet fully operational**. | |
| **Criterion 8: Penalties** | |
| Adoption & scope | The KSpTG provides the **legal basis** for NZIA-style penalties. Under **§ 25(4) KSpTG**, the competent ministry (BMWi/BMWK) is authorised to adopt an ordinance setting a **payment obligation per tonne of annually unfulfilled $CO_2$ injection capacity** (for non-compliance, partial fulfilment, or late fulfilment of required contributions). |
| Effectiveness, proportionality, dissuasiveness | The penalty design aims to **neutralise any economic advantage** gained by non-compliance by aligning penalties with the value of avoided investments.<br>Key features:<br>• The **maximum penalty level** will be derived analogously from the **German Emissions Trading Act (TEHG)**.<br>• Indicative levels: about **€130/t in 2025**, rising with inflation (approx. **€145/t by 2030** with 2% annual inflation).<br>• Preliminary cost estimates for storage development in the German North Sea indicate that such a penalty would be **economically significant and dissuasive**. |
| Germany is well advanced in designing a robust, economically meaningful penalty regime, and with the adoption of the KSpTG, it will become fully effective once the implementing ordinance is in place. | |

# Poland

| Criteria | Findings |
|---|---|
| **Criterion 1: Single points of contact (SPOC)** | |
| Designation and accessibility | Poland has designated a **Single Point of Contact** within the **Investment Development Department** of the **Ministry of Economic Development and Technology (MRiT)**. Publicly listed contact details (as per the European Commission NZIA SPOC list) are:<br>• **Email:** Net-zero.investments@mrit.gov.pl<br>• **Telephone:** +48 22 411 93 67 / +48 22 411 91 79<br><br>The SPOC is presented on an official MRiT webpage explaining its role for projects producing **net-zero technologies**. |
| Functionality | The SPOC is explicitly established **under Regulation (EU) 2024/1735** for "neutral-emission technologies" and is mandated to:<br>• **Facilitate and coordinate** permitting for relevant investments, including "strategic projects for emission neutrality" (technology-neutral; CCS is not singled out but not excluded).<br>• Provide **information on streamlined administrative processes**, including when an application is considered complete.<br>• Direct applicants to detailed permitting guidance (building permits, EIAs, water law permits) via **Biznes.gov.pl**.<br><br>Contact details are clear and accessible, and the SPOC has an **explicit coordination mandate** consistent with NZIA Article 6.<br><br>Limitations and gaps include:<br>• The webpage does **not explain in detail** how coordination works in practice (e.g., response times, tracking of applications, interaction with other authorities).<br>• It is unclear whether the SPOC operates as a **true "one-stop" channel** for submitting and channeling all permits, or mainly as an **information and coordination desk**.<br>• There is **no interactive form or portal** on the SPOC page itself; applicants still appear to submit applications directly to the competent sectoral authorities. |

| | |
|---|---|
| Poland has a clearly identified SPOC with contact details and a coordination mandate, but **operational modalities and "one-stop" functionality remain partly unclear**. The criterion is **largely met on paper**, with some implementation gaps. | |
| **Criterion 2: Centralised online access** | |
| Existence and accessibility | Poland offers a **central digital entry point** for administrative and permitting information through **Biznes.gov.pl**, the national **Single Digital Gateway** managed by MRiT.<br><br>Key features:<br>• Serves as the **main online interface** for business procedures.<br>• Available in **Polish and English**.<br>• Linked from official government websites, including the NZIA SPOC page. |
| Functionality | The portal offers:<br>• Comprehensive information on **business establishment, permits, taxation, and employment law**.<br>• Electronic submission options for **selected applications**.<br>• Links to **funding instruments and national support schemes** (e.g. via **NFOŚiGW** and **PARP**).<br><br>Limitations and gaps include:<br>• A **dedicated NZIA or CCS-specific section** combining all Article 7 elements (full permitting pathway, dispute-settlement guidance, national and EU funding opportunities) is **not visible** in the public-facing part of the portal.<br>• Information relevant for net-zero and $CO_2$ storage projects remains **dispersed** across several websites (MKiŚ, PIG-PIB, NFOŚiGW, etc.), with **no single, integrated landing page** beyond the general SPOC site. |
| Poland has a strong central e-government portal, but no NZIA/CCS-specific one-stop online section yet; Article 7 requirement is partially **met**. | |

| | |
|---|---|
| **Criterion 3: Administrative support** | Poland does **not yet** have a dedicated, formalised **administrative support mechanism** specifically tailored to net-zero or CCS project promoters (e.g. structured pre-application advisory services, standardised guidance documents, or a single help-desk).<br><br>Current elements include:<br><br>• The **Ministry of Climate and Environment (MKiŚ)** leads CCS/CCU policy. On **6 March 2025**, MKiŚ signed a **Letter of Intent** to develop a national CCS/CCU strategy up to **2040 (with a 2050 perspective)**.<br><br>- A cross-ministerial working group with over **40 industrial and research representatives** are preparing the strategy.<br><br>- MKiŚ has created a **Department for Innovation and Energy Efficiency**, including an **Innovation Division** tasked with CCS coordination, but little public information is available on its concrete activities.<br><br>• The **National Fund for Environmental Protection and Water Management (NFOŚiGW)** provides financial support but **not administrative facilitation**. Newly announced CCS/CCU programmes include:<br><br>- Information and educational activities/social dialogue,<br>- Feasibility studies and preparatory works,<br>- Support for applicants preparing EU funding proposals.<br><br>• The **Polish Geological Institute – National Research Institute (PIG-PIB)** offers geological and technical data through the **Central Geological Archive (CAG)** and portals (Geo3D, CBDG) but does **not** run a CCS helpdesk or project-support service.<br><br>Overall, administrative support is **fragmented and mostly informal**, pending finalisation of the CCS/CCU strategy and dedicated instruments.<br><br>Useful references:<br><br>- MKiŚ – Letter of Intent on developing a CCS/CCU Strategy (6 March 2025)<br>- Department for Innovation and Energy Efficiency<br>- PIG-PIB – Geo3D Portal: CCS section<br>- PIG-PIB – Central Geological Archive (CAG) information and contact<br>- NFOŚiGW – Priority Programmes and Co-financing Information<br>- Magazyn Biomasa – Raport CCUS 2025 pp. 12–16 |

| | |
|---|---|
| Poland is building institutional capacity and funding support for CCS but **lacks a structured administrative support service** for project promoters. The criterion is **not yet met**. | |
| **Criterion 4: Priority/public-interest status** | |
| Applicable to CCS | Poland is preparing a **dedicated Act on $CO_2$ transport and storage** to transpose NZIA elements and regulate CCS/CCU across the value chain. The Ministry has indicated that CCS/CCU projects will be treated as "**investments of national importance"** under this new act. A parallel update of the **localisation regulation** aims to expand eligible storage areas beyond the **Baltic Cambrian formation** to include **onshore sites**.<br><br>Existing national mechanisms already provide a basis for **priority treatment**:<br>• The **Act of 10 May 2018 on supporting new investments (Dz.U. 2018 poz. 1162)** allows the **Minister of Development and Technology** to grant administrative and fiscal support to projects meeting national economic or environmental goals.<br>  ○ "New investment" includes the creation or modernisation of industrial facilities improving environmental performance; CCS-equipped industrial projects could qualify once explicitly recognised in the CCS/CCU strategy.<br>• Poland has experience with special "specustawy" (special acts) for strategic energy infrastructure, e.g.:<br>  ○ the **2009 Act** on the LNG terminal in Świnoujście,<br>  ○ the **2020 Act** on offshore wind energy,<br>  ○ the **2000 Act** on nuclear power development.<br>The future **CCS/CCU Act** could follow a similar model, formally recognising $CO_2$ transport and storage as investments of national importance.<br><br>To date, **no CCS project** in Poland has been formally granted "overriding public interest" or similar top-priority status. |
| Appropriate handling | There is, so far, no documented case of accelerated administrative handling or urgent judicial treatment applied to CCS/CCU projects under national procedures. The forthcoming CCS/CCU Act is expected to introduce clearer fast-track/priority provisions aligned with NZIA, but until it is adopted, practice remains unchanged. Stakeholders (e.g., Holcim, ORLEN) publicly call for stable legal frameworks, demand-side tools (e.g., CCfDs), and recognition of CCS in public procurement to enable prioritisation in practice. |
| Poland has **legal tools and draft legislation** that could give CCS priority status, but **no formal public-interest designation or accelerated practice** exists yet. The criterion is **not currently met**, but progress towards it is visible. | |

| | |
|---|---|
| **Criterion 5: Permin-granting duration** | As of **29 October 2025**, Poland has **not** adopted national rules or guidance explicitly incorporating the **≤18-month cap** for issuing all permits required to operate a $CO_2$ storage site under NZIA Article 16.<br>• No implementing guidance clarifying **scope of permits, clock-start/stop, or suspension conditions** has been identified.<br>• The dedicated CCS act and related regulations are **under preparation** but not yet in force. |
| Poland has **no codified NZIA-compliant permit time limits** at this stage. The criterion is **not met**. | |
| **Criterion 6: Storage transparency & annual reports** | |
| Transparency | The **State Geological Service**, performed by **PIG-PIB**, already meets most NZIA requirements for public geological data access. Public portals and datasets include:<br>• PIG-PIB Map Portal<br>• Central Geological Data Base (CBDG)<br>• Drilling Holes Database<br>• InfoGeoSkarb portal<br>These contain geological and drilling data, metadata, and maps of areas where $CO_2$ storage could potentially take place and are published "without prejudice to confidentiality", consistent with Article 21(1)(a).<br>However, national rules to fully implement **Article 21(1)(b)** - obliging former hydrocarbon licence-holders to publish decommissioned-field data and cost assessments, and designating a supervisory authority - are **still being developed**. Regarding storage site designation:<br>• Poland has extensive **scientific and technical studies** on potential storage formations (e.g. mesozoic structures in the Polish Lowlands), including PIG-PIB research projects and technical reports.<br>• These materials serve a **planning/scientific** role and **do not** constitute an official regulatory list of CCS sites.<br>Useful references:<br>- ResearchGate<br>- PIG-PIB PDF<br>- Przegląd Techniczny<br>As of 2025, the only area **formally designated by law** for $CO_2$ storage is the **Cambrian reservoir** within Poland's **Exclusive Economic Zone (EEZ) in the Baltic Sea**, under the **Regulation of 3 December 2014 on areas where underground $CO_2$ storage is permitted (Dz.U. 2014 poz. 1272)**. This remains in force pending a revised localisation regulation. |

| | |
|---|---|
| Annual report publication | Poland submitted its first **Article 21 report** in **December 2024**, available via the Commission's Industrial Carbon Management page. Key elements include:<br>• **$CO_2$ capture projects**:<br>  ○ Two small existing capture installations (Borzęcin and Kaniów).<br>  ○ Two projects under development: **Holcim Kujawy Go4ECOPlanet** and **ORLEN ECO2CEE** (with Air Liquide Polska and Lafarge Cement S.A.), connected to a **$CO_2$ terminal in Gdańsk**.<br>• **$CO_2$ storage**:<br>  ○ Currently legal only in the **Baltic Cambrian reservoir** under the 2014 regulation.<br>  ○ Work is ongoing on new onshore areas via the updated localisation regulation.<br>• **Transport**:<br>  ○ The ECO2CEE project is currently the only active transport project; $CO_2$ will be transported by rail to Gdańsk for **export to North Sea storage sites**.<br>• **Support measures**:<br>  ○ No dedicated national financial or regulatory CCS instruments yet; such measures are planned under the upcoming **CCS/CCU strategy**.<br>• **Strategy and targets**:<br>  ○ No official 2030 capture target yet; strategy is under development.<br>• **Cross-border cooperation**:<br>  ○ A **bilateral CCS cooperation plan with Lithuania** (March 2023).<br>  ○ ECO2CEE is part of the **EU CCS Interconnector PCI** network. |
| Adequacy & accuracy of content | Poland formally complies with Article 21 by providing both public geological datasets and an annual report. However, overall completeness remains partial:<br>• Storage mapping is still restricted to **one offshore site.**<br>• No national storage-cost data or transport-capacity assessment yet.<br>• No adopted national targets or cross-sector capture mapping beyond the industrial pilot level. |

| | |
|---|---|
| Poland complies with NZIA **minimum transparency and reporting requirements**, but practical coverage is limited, with only one legally designated storage area and limited strategic data. | |
| **Criterion 7: Transport infrastructure & access** | |
| Legal framework | Poland is developing a comprehensive legal framework for $CO_2$ transport and storage:<br>**1. Draft Act on $CO_2$ transport and storage (CCS/CCU Act)**<br>o Responsible body: **MKiŚ**.<br>o Aim: regulate the entire CCS/CCU chain and align national law with NZIA.<br>**2. Draft localisation regulation revision**<br>o Responsible body: **MKiŚ**, in cooperation with geological authorities.<br>o Objective: expand the list of eligible storage areas beyond the Baltic EEZ, enabling **onshore projects**.<br>An accompanying **national CCUS strategy (2040/2050)** is being finalised by an inter-ministerial group with industry involvement. These elements form the backbone of Poland's future $CO_2$ transport and storage framework but are **not yet in force**. |
| Fair third-party access rules | Public sources do **not yet identify**:<br>• a designated **$CO_2$ network operator**, or<br>• detailed rules on **regulated, non-discriminatory third-party access** to $CO_2$ transport and storage, or<br>• the competent authority for access disputes.<br>These aspects are expected to be defined in the **forthcoming CCS legislation** once a network is designated. |
| Cross-border co-ordination | Poland is developing a **cross-border CCS corridor** linked to the **ECO2CEE project**:<br>• ECO2CEE includes a **multimodal import-export terminal in the Port of Gdańsk**, with $CO_2$ exports to North Sea storage.<br>• The project is part of the **EU CCS Interconnector PCI** network.<br>• Member State reporting highlights broader international cooperation through:<br>- **EU funding instruments** (Innovation Fund, Modernisation Fund, CEF),<br>- **EEA/Norway cooperation**. |

| | |
|---|---|
| Poland is actively developing a legal and infrastructural framework for cross-border $CO_2$ transport, but **no operational network or access regime is yet in place**. The NZIA criterion is **not currently met**, but progress towards it is visible. | |
| **Criterion 8: Penalties** | |
| Adoption & scope | As of **29 October 2025**, Poland has **not yet adopted** a penalty regime for failure to meet $CO_2$ injection obligations. The planned NZIA-implementing package, including the **CCS/CCU Act**, is expected to:<br>• designate the **competent authority**,<br>• define the **types of infringements**, and<br>• set **penalty levels and mechanisms**.<br>These provisions, however, are **not yet in force**. |
| Effectiveness, proportionality, dissuasiveness | Not assessable at this stage, as no detailed penalty mechanism has been adopted. |
| Poland currently **does not meet** the NZIA penalty requirement; the regime remains to be defined in future CCS legislation. | |

# Denmark

| Criteria | Findings |
|---|---|
| **Criterion 1: Single points of contact (SPOC)** | |
| Designation and accessibility | Denmark has designated a **Single Point of Contact** at the **Danish Business Authority (Erhvervsstyrelsen)** under the **Ministry of Industry, Business and Financial Affairs**. The contact listed on the NZIA SPOC page is:<br>• **Contact person:** *Mathias Thygesen*<br>• **Email: onestopshop@erst.dk**<br>• **Telephone: +45 35 29 13 07**<br>• **Landing page:** Erhvervsstyrelsen (Danish Business Authority website)<br>The SPOC is embedded in a **"one stop shop"** arrangement for establishing production facilities in Denmark. |

| | |
|---|---|
| Functionality | The **one stop shop** is designed to facilitate the establishment of **production facilities**, including those that produce **"net-zero technology or components for net-zero technology"** (as defined by NZIA) and critical raw materials. There is **no explicit mention of CCS**, but CCS-related equipment/manufacturing could be covered if classified as net-zero technology production.<br><br>From the NZIA SPOC link, the user lands on a general Erhvervsstyrelsen page where the one-stop shop is not immediately visible; however, searching for "NZIA" leads to the specific page:<br><br>• *"One stop shop for etablering af produktionsanlæg"* on the Erhvervsstyrelsen website<br>• This page references NZIA and CRMA and links to the relevant EU legislation.<br>• It then links to the **operational portal** hosted on **Virksomhedsguiden** (Business Guide) - *One stop shop for etablering af produktionsanlæg* \| *Virksomhedsguiden*<br><br>Through this portal, eligible companies receive:<br>• **A permanent coordinator**<br>  ○ Accompanies the company throughout the approval process.<br>  ○ Provides an overview of required permits, notifications and exemptions.<br>  ○ Helps ensure the project's **case-processing deadlines** are respected.<br>• **A comprehensive time and approval plan**<br>  ○ Gives a cross-cutting overview of all permits, from environmental approvals to building permits.<br>  ○ Developed jointly with the **municipality** hosting the project and relevant state authorities.<br>• **Fast case processing**<br>  ○ Each project is assigned a **maximum overall case-processing time of 12 or 18 months**, depending on the nature of the project.<br>• **Guidance on rules and requirements**<br>  ○ Guidance on where to find detailed regulatory information for each permit.<br>• **Clarification of regulations**<br>  ○ The coordinator can liaise with competent authorities to **clarify ambiguous rules**.<br>The portal supports **electronic submission of documents** and provides **pre-application information**, including eligibility criteria.<br><br>However, while it clearly promises a permanent coordinator per project, the portal does **not indicate whether staff and resources are sufficient** to support all relevant projects at scale. |
| Denmark has a **fully operational one-stop shop with a SPOC and dedicated coordinator service**, which broadly satisfies NZIA expectations, although CCS is not explicitly singled out and capacity aspects are not disclosed. | |
| **Criterion 2: Centralised online access** | |

| | |
|---|---|
| Existence and accessibility | The one-stop shop portal for establishing production facilities for **net-zero technologies and critical raw materials** is hosted on the **Danish Business Guide (Virksomhedsguiden)** website: *"One stop shop for etablering af produktionsanlæg \| Virksomhedsguiden"*<br><br>It is also linked from the **"Invest in Denmark"** section of the Ministry of Foreign Affairs website (announcing the launch of the national one-stop shop). However, it is **not linked** from the CCS landing page at the **Ministry of Climate, Energy and Utilities** (*CCS: $CO_2$-fangst og -lagring*). |
| Functionality | The portal:<br>• Includes **SPOC details** and a **web-based application entry point**<br>• Is integrated into the broader **Business Guide** environment, which provides:<br>  ○ Information on **financing and investment services**,<br>  ○ Overviews of **funding possibilities at EU and national level**,<br>  ○ General **business support services**.<br><br>These resources, however, are organised **for all businesses** and not specifically tailored to CCS or NZIA. It would be useful if the portal linked directly to:<br>• CCS-specific funding opportunities at the **Danish Energy Agency** (*CCS tenders and other funding for CCS development*), and<br>• CCS-relevant regulatory overviews at the **Ministry of Climate, Energy and Utilities** (*CCS: $CO_2$-fangst og -lagring*) and **Danish Energy Agency** (*Political agreements and applicable legislation*)<br><br>**Functionality gaps include:**<br>• There is **no dedicated NZIA/CCS section** integrating all Article 7 elements (permitting pathway, dispute-settlement guidance, CCS-specific funding, etc.) visible in the public area.<br>• Cross-linking between the one-stop shop and existing CCS information pages is incomplete. |
| Denmark has a **well-developed central online one-stop shop** for net-zero production, but **NZIA and CCS content are not yet fully integrated** or cross-linked, leaving some fragmentation. | |

| | |
|---|---|
| **Criterion 3: Administrative support** | Administrative support is provided primarily through the **permanent coordinator** assigned to eligible projects via the one-stop shop (see Criterion 1). The coordinator's role explicitly includes **support on the permit-granting process**.<br><br>Additional administrative support includes:<br><br>• The **Business Guide** website provides guidance notes, tools and templates, though these are generic and not CCS/NZIA-specific.<br><br>• Consolidated information on CCS in Denmark is available from:<br><br>  ○ The **Danish Energy Agency** (*Supply and consumption – CCS box*, in English),<br><br>  ○ The **Geological Survey of Denmark and Greenland (GEUS)**, which offers explainers and outreach materials (*Fangst og lagring af $CO_2$ (CCS)*).<br><br>These resources are **not currently linked** from the one-stop shop portal and do not include structured permit FAQs or public-acceptance toolkits<br><br>However, it is unclear whether the coordinator's collaboration with the host municipality includes **support for public engagement**, such as helping to inform the local population or providing communication materials to enhance acceptance. |
| Denmark offers **strong administrative support through dedicated coordinators**, but **CCS-specific guidance and public-acceptance tools are not fully integrated** into the one-stop shop environment. | |
| **Criterion 4: Priority/public-interest status** | |
| Applicable to CCS | Since **1 October 2025**, **$CO_2$ infrastructure** (capture, transport, geological storage) has been explicitly recognised as a **national interest** by the **Danish State Planning Authority (Plan- og Landdistriktsstyrelsen)**. The updated overview of national interests in municipal planning states that:<br><br>• There is a **state interest** in expanding CCS infrastructure, as it is "necessary to strengthen climate protection through reductions of greenhouse gases".<br><br>• Municipal plans must **not conflict** with permits or planned CCS infrastructure.<br><br>This gives CCS a **strong planning priority**. However, CCS does not appear to have been designated as a separate category of "highest national significance" or a specific "net-zero strategic project" label beyond the general national-interest framework. |

| | |
|---|---|
| Appropriate handling | In **October 2025**, Denmark proposed measured to **reduce legal risks** for CCS projects by modifying appeal rules:<br>• For CCS capture, transport and storage projects, appeals would **no longer automatically suspend** projects while complaints are processed.<br>• The proposal **limits standing** (who may file complaints) and introduces **fees** for lodging complaints.<br>• The measures have broad parliamentary backing and are expected to enter into force in **March 2026**.<br>This differentiated regime confirms that Denmark regards CCS as **strategic infrastructure warranting expedited handling** compared to standard procedures. |
| Denmark already treats CCS as a **national planning interest** and is enacting **faster, less easily suspended procedures**. While not labelled as "strategic net-zero projects" in NZIA terms, the substance of priority treatment is **largely in place**. | |
| **Criterion 5: Permin-granting duration** | The one-stop shop operated by the **Danish Business Authority** specifies that eligible projects receive a **maximum total case-processing time of 12 or 18 months**, depending on the nature of the project. This timeline applies to the combined handling of all relevant approvals. |
| Denmark effectively **meets NZIA permit-duration expectations** through the one-stop shop's 12–18 month case-processing ceilings. | |
| **Criterion 6: Storage transparency & annual reports** | |
| Transparency | Denmark provides substantial public information on CCS storage:<br>• **Geological data and storage information** via the **Geological Survey of Denmark and Greenland (GEUS)**, including CCS data for **2022–2024**.<br>• Detailed information on **$CO_2$ storage licensing rounds**, including mapping, rounds, and public consultations, via the **Danish Energy Agency** (*Licenses for exploration and storage of $CO_2$*).<br>• A comprehensive **"Technology Data for Carbon Capture, Transport and Storage"** catalogue, covering capture, transport, and underground storage (onshore and offshore), with technical and economic parameters that can serve as baseline **cost and performance references**.<br>However, project-specific costs may vary substantially depending on geology, transport distance, required infrastructure and financing conditions; **more real-world cost data** from ongoing projects would improve transparency. |
| Annual report publication | Denmark has published its **2024 NZIA Article 21** annual report. |

| | |
|---|---|
| Adequacy & accuracy of content | The report includes:<br>• A mapping of **$CO_2$ capture, transport and storage projects in progress**, with expected permit and FID timelines.<br>• Information on **national support measures, strategies and targets** adopted or planned.<br>• Information on **cross-border $CO_2$ transport cooperation**.<br><br>This covers most NZIA requirements. |
| Denmark provides **robust, publicly accessible geological, licensing and techno-economic data**, and has delivered its NZIA report. Overall transparency is **strong and broadly aligned with NZIA expectations**. | |
| **Criterion 7: Transport infrastructure & access** | |
| Legal framework | Denmark's legal framework for $CO_2$ transport is **well advanced but still being completed**:<br>• The **"Roadmap for $CO_2$ capture, transport and storage"** (second part of the national CCS strategy, 2021) outlines strategic directions.<br>• The **2023 "Agreement on Strengthened Framework Conditions for CCS in Denmark"** recognises the need for a clear regulatory framework for $CO_2$ transport and announces a dedicated law.<br>• A **"Consolidated Act on pipeline transport of $CO_2$" was published in 2024**, forming a key legal pillar.<br>• The recent proposal on permitting/appeals (see Criterion 4) also states that the upcoming bill will further **clarify pipeline regulation**.<br><br>All relevant legislation is consolidated by the **Danish Energy Agency** (political agreements and applicable laws). Confirmation is still needed regarding the **final status and scope** of the detailed national $CO_2$ transport law announced in the 2023 framework agreement. |
| Fair third-party access rules | Denmark reports that **Article 21 of the EU CCS Directive (third-party access)** has been implemented in the **Danish Subsoil Act**, with disputes on access handled by the **Minister for Climate, Energy and Utilities**. The **2023 "Strengthened Framework Conditions"** agreement confirms that a new $CO_2$ transport law will **ensure third-party access** to $CO_2$ pipelines.<br><br>Meanwhile, the **2024 Consolidated Act on pipeline transport of $CO_2$ already requires non-discriminatory access** in principle, even though detailed rules (tariffs, capacity allocation, cross-border arrangements) are still being finalised. |

| | |
|---|---|
| Cross-border co-ordination | Denmark is very active in cross-border CCS collaboration:<br>• Arrangements with **Norway, Belgium, the Netherlands and Sweden** to allow cross-border $CO_2$ transport and geological storage.<br>• Participation in **Nordic cooperation** on CCS, including a new **Nordic CCS Programme** under the **Nordic Council of Ministers**. |
| Denmark has a **solid and rapidly evolving framework** for $CO_2$ transport and third-party access, with strong cross-border engagement. Some detailed rules are still being finalised, but the NZIA requirements are met. | |
| **Criterion 8: Penalties** | |
| Adoption & scope | A proposed **Danish penalty regime** for NZIA-related non-compliance is out for **public consultation** **during the writing of this report until 10 December 2025**. Key characteristics of the proposal:<br>• Penalties would be determined by the courts, consistent with Danish legal tradition (where penalty levels are usually not set exhaustively in statute).<br>• The legislation's text itself does **not specify concrete levels** for financial penalties. |
| Effectiveness, proportionality, dissuasiveness | The regime may **lack predictability and transparency** for project developers. Without clear guidance on amounts, penalties may not be **sufficiently dissuasive** when compared to potential economic gains from non-compliance. |
| Denmark is in the process of **introducing a penalty regime**, but the current proposal **may fall short of NZIA's requirements for clear, dissuasive sanctions**, pending final design and implementation. | |

# Hungary

| Criteria | Findings |
|---|---|
| **Criterion 1: Single points of contact (SPOC)** | |
| Designation and accessibility | Hungary has formally designated a **Single Point of Contact** for NZIA projects within the **Ministry for National Economy's Department of Industrial Strategy**.<br>• Email**: nzia@ngm.gov.hu**<br>• Listed on the **European Commission's** page **"Streamlined permitting and information for project promoters"** (Hungary entry).<br><br>No postal address, telephone number, or dedicated national webpage is publicly available. |
| Functionality | There is no publicly available information on how the SPOC operates in practice (e.g. response times, internal processes, statistics, guidance for applicants). The only official evidence online is **the Commission list that confirms the email contact**; there are no Hungarian government webpages describing how this SPOC works. |
| Hungary has a **formally designated SPOC contact**, but its **practical functioning and services are opaque**. The criterion is only **partially fulfilled**. | |
| **Criterion 2: Centralised online access** | |
| Existence and accessibility | **No dedicated NZIA national portal could be identified** that would provide comprehensive information on procedures, permits, and support for net-zero manufacturing projects. |
| Functionality | As there is **no identifiable NZIA-specific central portal**, its functionality (e.g. integration of permits, finance, dispute-settlement, etc.) **cannot be assessed**. |
| Hungary **does not meet** NZIA Article 7 requirements for a centralised online one-stop portal. | |
| **Criterion 3: Administrative support** | No **NZIA-specific administrative support scheme** could be identified for project promoters |
| Administrative support for NZIA projects appears **absent or not publicly documented**. The criterion is **not met.** | |
| **Criterion 4: Priority/public-interest status** | |

| | |
|---|---|
| Applicable to CCS | There is **no evidence** that Hungary has adopted a national law or formal decision explicitly granting **NZIA strategic projects (including CCS)** a **special priority or overriding public-interest status**. Hungary does use general categories such as **"nemzetgazdasági szempontból kiemelt beruházás"** (investment of national economic importance), which can grant projects certain procedural advantages. However, there is **no publicly available link** between these mechanisms and NZIA strategic net-zero projects or $CO_2$ storage. |
| Appropriate handling | No Hungarian measure could be identified that:<br>• systematically **operationalises priority status** for NZIA strategic projects, or<br>• clearly **implements Article 10 of the NZIA** (e.g. fast-track planning, routine overriding-public-interest designation for CCS).<br>Any such practice, if it exists, is **not transparently documented** online. |
| While priority-investment instruments exist, there is **no clear linkage to NZIA or CCS**, and **no evidence of systematic priority handling**. The criterion is **not met**. | |
| **Criterion 5: Permin-granting duration** | Hungary has **one concrete CCS-related project** documented; the **Dunaföldvár exploration permit**, granted by **SARA (Supervisory Authority of Regulated Activities)** to **OGD Green Storage Kft** for an aquifer storage project to store **Pannonia Bio's $CO_2$ emissions**.<br>However, public documentation does **not indicate the date of application submission**, and there is **no published maximum processing time** for $CO_2$ storage permits or for NZIA-related permits in general. Therefore, it is **not possible to assess** whether Hungary complies with NZIA **permit-duration requirements** (≤18 months). |
| Due to lack of data on timelines, Hungary's compliance with NZIA permit-granting deadlines **cannot be confirmed**; the criterion is **not demonstrated as met**. | |
| **Criterion 6: Storage transparency & annual reports** | |

| | |
|---|---|
| Transparency | Hungary has provided detailed public information on $CO_2$ storage potential and geology:<br>• The **2024 Article 21 report** (*"$CO_2$ storage potential of Hungary – Data provision related to Art. 21 of the Net Zero Industry Act"*) states that:<br>  ○ **$CO_2$ storage is legally permitted throughout Hungary**, with exclusions for certain water-bearing formations.<br>  ○ The report synthesises ~25 years of **national studies** on storage potential.<br>• The report specifies that **SARA** will:<br>  ○ Publish a **short description in Hungarian and English**, and<br>  ○ Make storage-suitable areas and capacities accessible via an **online map server.**<br>• SARA's **Decree 29/2022 (I.31.) on geological structures suitable for $CO_2$ storage** establishes **detailed rules** and is published on the authority's website.<br><br>Together, these elements indicate a **high level of transparency** regarding storage locations and potential capacity. |
| Annual report publication | Hungary submitted its **2024 Art. 21 report on time**, and the report is **publicly accessible** on the European Commission's "EU 2030 carbon storage target" page. |

| | |
|---|---|
| Adequacy & accuracy of content | The 2024 Article 21 report for Hungary covers most of the key NZIA elements:<br>• **Legal permissibility** of $CO_2$ storage and mapping of **potential storage types** (depleted hydrocarbon reservoirs and deep saline aquifers) with **quantified capacity estimates**.<br>• Reference to a **2023 White Paper on CCS/CCU in Hungary**, mapping value-chain actors and providing a technical basis for integrating CCS/CCU into national planning.<br>• Detailed information on the **Dunaföldvár exploration permit** (operator, expected capacity, timeline).<br>• Clear statement that there are **currently no national support measures** for $CO_2$ capture, transport or storage.<br>• Quantitative indication of planned **CCUS contribution by 2050**:<br>  ○ 8 Mt $CO_2$ out of approximately 23 Mt $CO_2$e net emissions, based on the NECP.<br>• Description of a **cross-border pipeline project** and working group with **Croatia** and **FGSZ** (Hungarian TSO), aiming to transport ~**1.65 Mt/yr $CO_2$** from cement plants to storage in **Croatia** (Bockovci-1, ~26 Mt capacity), proposed as a **Project of Common Interest (PCI)**.<br>• Ongoing **capacity estimation by SARA** and publication via the **SARA web map** and Commission reporting.<br><br>The report appears **technically robust and methodologically consistent** with prior Hungarian CCS work. Geological accuracy cannot be independently verified here, but the level of detail and consistency suggests a strong submission. |
| Hungary provides **high-quality geological data and a thorough Article 21 report**, **meeting this criterion.** | |
| **Criterion 7: Transport infrastructure & access** | |
| Legal framework | No dedicated **national legal framework for $CO_2$ transport infrastructure** has been identified that would regulate $CO_2$ pipeline development, and explicitly implement NZIA Article 22. Existing gas network rules (e.g. the **FGSZ transmission code**) cover **natural gas** and address $CO_2$ content only as a **quality parameter**, not as a separate $CO_2$-transport regime. |
| Fair third-party access rules | No specific rules were identified that guarantee **fair, regulated, non-discriminatory third-party access** to $CO_2$ transport infrastructure or storage facilities. |
| Cross-border coordination | Hungary is involved in a **cooperation working group** with the **Croatian Hydrocarbons Agency**, **Croatian TSO Plinacro**, and **Hungarian TSO FGSZ**, to develop a **cross-border $CO_2$ transport route** from Hungarian and Croatian border-region industries to geological storage in Croatia. |
| Hungary has **begun regional coordination on cross-border $CO_2$ transport**, but lacks a **dedicated national legal framework and access rules** for $CO_2$ transport. The NZIA criterion is **only partially addressed.** | |
| **Criterion 8: Penalties** | |

| | |
|---|---|
| Adoption & scope | Hungary has **not yet adopted** a penalty regime for NZIA Article 23 related non-compliance. |
| Effectiveness, proportionality, dissuasiveness | With no penalties in place yet, effectiveness, proportionality and dissuasiveness cannot yet be assessed. |
| The NZIA penalty requirement is **not yet met** in Hungary; a dedicated regime remains to be established. | |

## Ireland

| Criteria | Findings |
|---|---|
| **Criterion 1: Single points of contact (SPOC)** | |
| Designation and accessibility | Ireland **did not designate a SPOC** by the **30 December 2024** deadline:<br>• The European Commission's official NZIA one-stop contact list shows Ireland as **"None currently"** (blank entry).<br>• No public announcement or guidance from Irish authorities indicates that a SPOC for NZIA project permitting has been created.<br><br>The **Department of Enterprise, Trade and Employment (DETE)** is leading NZIA implementation and is expected to eventually designate a SPOC. However, as of late 2024 and early 2025 (including the **January 2025 DETE Ministerial Brief, p. 54**), no formal designation was publicly in place. |
| Functionality | In the absence of a SPOC, project developers must continue to navigate **standard permitting channels.** This likely results in **fragmented contacts, slower coordination, and higher transaction costs** compared to Member States with operational SPOCs. |
| Ireland **has not yet met** NZIA SPOC requirements. | |
| **Criterion 2: Centralised online access** | |
| Existence and accessibility | Ireland does **not** have a centralised online portal that aggregates key information for **net-zero technology manufacturing projects**, or provides a single entry point for NZIA-related permits, funding and guidance. |
| Functionality | None of the Article 7 information elements are consolidated on an online portal. |
| Ireland **does not yet comply** with NZIA Article 7: there is no centralised NZIA portal and no consolidated information hub for net-zero manufacturing projects. | |

| | |
|---|---|
| **Criterion 3: Administrative support** | Ireland had **not introduced dedicated administrative support tools** or services for NZIA projects by 2025 (e.g. NZIA-specific guidance notes, "one-stop" application toolkits, permitting templates, FAQs for net-zero manufacturing or $CO_2$ storage). No evidence of a **dedicated support team or unit** assigned to help promoters with permitting, reporting obligations, or public outreach for NZIA/CCS projects.<br><br>Stakeholder feedback reinforces this gap. A 2024 report by Irish cement manufacturers on CCUS in hard-to-abate sectors explicitly called on the government to **establish a permitting process and designate a competent authority for permanent $CO_2$ storage**, signalling that these elements were still missing as of mid-2024 (and can reasonably be assumed unchanged in 2025).<br><br>At the same time, the **DECC** (Department of the Environment, Climate and Communications) and **DETE** have created a **CCUS Taskforce** with the following objectives:<br>o Identify additional emissions reductions via CCUS deployment.<br>o Determine costs, pathways, barriers and risks.<br>o Develop implementation pathways for CCUS measures in the Climate Action Plan (CAP), including costs and policy tools.<br>o Ensure CCUS work is consistent with NZIA objectives on capture, transport, and storage.<br><br>These objectives **should eventually lead** to better guidance and support structures for CCS projects, but they were still **under development** in 2025. |
| Ireland **has no dedicated administrative support scheme** in place for NZIA/CCS at this stage. Improvements are expected only after the CCUS Taskforce delivers recommendations and a regulatory framework is adopted. | |
| **Criterion 4: Priority/public-interest status** | |

| | |
|---|---|
| Applicable to CCS | No CCS projects have been formally designated as **"Net-Zero Strategic Projects"** in Ireland, and the NZIA priority provisions have not been applied in practice. Ireland's planning system does include **Strategic Infrastructure Development (SID)** for certain large projects (e.g. major energy, transport and environmental infrastructure), which allows **fast-track planning** via An Bord Pleanála. However:<br>• CCS is **not listed** among the SID categories (see SID guidance, p. 10).<br>• No net-zero manufacturing or CCS project has been processed under a special priority regime by 2024.<br>• No policy or legislative change was identified that grants NZIA projects a **public-interest status** or a presumption of overriding public interest.<br>According to Reuters, Ireland intends to raise the threshold for legal challenges to planning decisions for major infrastructure, but this remains a **general planning reform**, not a CCS or NZIA specific priority mechanism. |
| Appropriate handling | Not assessable, as **no CCS project** has been prioritised or processed under a special NZIA regime. |
| Ireland **has not yet created or applied** a priority/public-interest status for NZIA or CCS projects. Existing planning tools (such as SID) have not been extended to CCS. | |
| **Criterion 5: Permit-granting duration** | NZIA Article 16 requires that the **entire permitting process for a $CO_2$ storage site** not exceed **18 months**. In Ireland, **no $CO_2$ storage permit applications** are being processed. Ireland **bans geological $CO_2$ storage** on its territory under current national law.<br>Since 2011, Ireland has exercised its **opt-out** under **Article 4 of the CCS Directive**, prohibiting $CO_2$ storage in its jurisdiction. As a result, the NZIA permit-duration requirement is **not implemented in practice**, because **no storage permitting regime exists at all**. |
| Ireland **does not implement** NZIA storage permit timelines, as **$CO_2$ storage remains prohibited** and no permitting system operates. | |
| **Criterion 6: Storage transparency & annual reports** | |

| | |
|---|---|
| Transparency | Ireland reported to the Commission that it has **no area of Irish territory free to be used for $CO_2$ storage**, because it has opted to prohibit $CO_2$ storage (CCS Directive Article 4). Consequently, it **has not published maps or datasets** of $CO_2$ storage-suitable areas. Nonetheless, **Geological Survey Ireland (GSI)** has participated in several **$CO_2$ storage research projects** and published assessment reports. For example, a study by the **Sustainable Energy Authority of Ireland (SEAI)** estimated Ireland's **theoretical $CO_2$ storage capacity at ~93,115 Mt** (including offshore prospects).<br><br>However, the government has **not proactively disclosed** detailed geological data and cost assessments for decommissioned gas fields such as **Kinsale Head**, widely regarded as a prime storage candidate. Kinsale Energy's decommissioning information acknowledges that:<br>○ Some infrastructure (jackets, pipelines) *could* potentially be repurposed for future gas, renewables or $CO_2$ storage projects,<br>○ Third-party studies on such options are underway,<br>○ But **Kinsale Energy itself has no plans** for future use and is proceeding with decommissioning. |
| Annual report publication | Ireland did submit its first **Article 21 report** by the end of 2024, as required. Given the legal context, the report is **minimal**:<br>• It acknowledges **no active $CO_2$ capture or storage projects**,<br>• Provides **no data** under Article 21(2)(a)–(f) (projects, dates, volumes, capacities, etc.),<br>• Instead, it outlines elements of **industrial decarbonisation policy** (efficiency, fuel switching, exploration of CCUS policy via the Taskforce), **without a concrete $CO_2$ storage development plan**.<br><br>Under Article 21(3), when a Member State has **no storage project underway**, it must report on alternative plans. Ireland states that:<br>• There are **no current plans** for cross-border $CO_2$ transport to other Member States or for $CO_2$ utilisation projects.<br>• The **current ban on $CO_2$ storage is "under active review"**, and Articles 21, 22 and 23 are being assessed by the **CCUS Taskforce**. |

| | |
|---|---|
| Adequacy & accuracy of content | Formally, Ireland has **met the obligation to submit a report on time**, but the **substantive content** does not meet the requirements of the NZIA's Article 21:<br>• No storage sites are mapped,<br>• No storage needs or capacity pathways are quantified,<br>• No capture needs, support measures, or implementation roadmap for CCS are presented.<br>The report effectively **defers meaningful action** to the outcome of future CCUS Taskforce work. |
| Ireland is **not yet meeting Article 21 transparency requirements in substance**. Reporting is formally compliant but largely empty of operational CCS content due to the storage ban and lack of strategy. | |
| **Criterion 7: Transport infrastructure & access** | |
| Legal framework | Ireland currently has **no dedicated legal or strategic framework** for $CO_2$ transport infrastructure:<br>• No published plans for **$CO_2$ pipelines, shipping routes, hubs or terminals** as of end-2024.<br>• NZIA requires Member States to "take all reasonable efforts" to facilitate necessary $CO_2$ transport, but Ireland's efforts have been minimal, reflecting its current prohibition on $CO_2$ storage.<br>• Ireland's Article 21 report confirms that Articles 21, 22 and 23 are only now being examined by the CCUS Taskforce, implying early-stage policy reflection.<br>There is **no legal provision** yet that guarantees development of $CO_2$ transport infrastructure, or commits state investment and clear regulatory pathways for $CO_2$ transport. Furthermore, **CCUS deployment is not integrated** into the **Climate Action Plans 2024 & 2025**, reinforcing the absence of a transport/storage strategy. |
| Fair third-party access rules | Because there is **no $CO_2$ transport infrastructure** and no dedicated $CO_2$ transport law, there is **no regulatory framework** for open, non-discriminatory access to $CO_2$ networks or storage sites. Existing third-party access rules to pipelines only apply to natural gas, not to $CO_2$. |
| Cross-border coordination | Ireland's 2024 Article 21 report states explicitly:<br>• No plans at present for cross-border $CO_2$ transport to storage sites in other Member States.<br>• No plans for $CO_2$ utilisation projects<br>• No MoUs or agreements reported with neighbouring countries on $CO_2$ shipping or pipeline projects. |

| | |
|---|---|
| Ireland has taken almost no concrete action on $CO_2$ transport infrastructure (e.g. no pipelines or $CO_2$ terminals, no regulatory framework, no cross-border coordination).<br><br>This is effectively **non-compliant with NZIA Article 22** and risks stranding any future CCS projects until policy changes. The CCUS Taskforce is expected to address this, but no tangible progress is visible in 2024–2025. | |
| **Criterion 8: Penalties** | |
| Adoption & scope | As of **November 2025**, Ireland has **not established a penalty regime** for failure to create or use $CO_2$ injection capacity. |
| Effectiveness, proportionality, dissuasiveness | With **no penalty regime in place**, effectiveness, proportionality and dissuasiveness **cannot be assessed**. |
| Ireland **does not yet meet** NZIA requirements on penalties. Any penalty framework will depend on a future shift in CCS policy and the outcome of the CCUS Taskforce's work. | |

# Croatia

| Criteria | Findings |
|---|---|
| **Criterion 1: Single points of contact (SPOC)** | |
| Designation and accessibility | Croatia has formally designated a **Single Point of Contact** for NZIA projects:<br>• **Authority:** Ministry of Economy, **Directorate of Industry and Mining**<br>• **Email: Uprava_sektorindustrija@mingo.hr**<br>The SPOC is established by a **Government Decision on the implementation of Regulation (EU) 2024/1735**, which sets up a **"Jedinstvena kontaktna točka"** (Single Contact Point) within the Ministry. |

| | |
|---|---|
| Functionality | The Government Decision defines the SPOC's mandate as:<br>• Providing **information to project promoters** on NZIA-related issues,<br>• **Coordinating** with state and local authorities responsible for issuing permits for net-zero technology manufacturing projects,<br>• **Coordinating the permit-granting procedure** for such projects.<br>However, there is **no public data** on response times or service standards, number or type of applications handled, and internal workflows or guidance documents for applicants. As a result, the **practical performance** of the SPOC cannot be fully assessed. |
| Croatia has **designated SPOC with a formal coordination mandate**, but **operational performance and user experience are not transparent**, so functionality can only be partially confirmed. | |
| **Criterion 2: Centralised online access** | |
| Existence and accessibility | The Ministry of Economy hosts an NZIA information page which:<br>• Explains the **purpose** of the Regulation,<br>• Links to the **EU NZIA Regulation**,<br>• Links to the **Croatian Government Decision** on NZIA implementation,<br>• Lists the **SPOC contact details**.<br>This page is publicly accessible and serves as a **central reference point** for NZIA in Croatia. |
| Functionality | The NZIA page provides a **basic centralised access point**, but it does **not function as a full "one-stop" portal,** and lacks detailed permit procedures, downloadable application forms, process maps, or online tracking tools. While accessibility and visibility are good, **key information is not fully consolidated** in an operationally useful way. To meet NZIA Article 7 in full, the page would need to expand its content and tooling. |
| Croatia has created a **central NZIA information page**, but its functionality is **limited**; it is an information hub rather than a one-stop digital portal. | |

| | |
|---|---|
| **Criterion 3: Administrative support** | The Government Decision explicitly mandates the **Single Contact Point** to:<br>• Provide **information** to project promoters,<br>• **Coordinate** with all competent permit-issuing authorities at state and local level.<br>This constitutes a **formal administrative-support mandate** linked to the SPOC. However, there is no evidence of additional tools such as standardised guidance documents, application templates, helpdesk protocols, or structured advisory services. For CCS in particular, there is **no public programme** offering dedicated technical or administrative support to private developers. The **Croatian Hydrocarbon Agency (AZU)** is **active in CCS**, but primarily as:<br>• A **regulator and project promoter** for geological storage and subsurface resources,<br>• Not as a dedicated **support service provider** for external project developers.<br>Croatia's implementation of NZIA Article 8 therefore seems to rely on the **SPOC's information and coordination role**, without a broader administrative support scheme. |
| Croatia provides **basic administrative support via the SPOC**, but **no dedicated, structured support system** for CCS/NZIA projects has been established. Developers may still face complexity in navigating procedures. | |
| **Criterion 4: Priority/public-interest status** | |
| Applicable to CCS | There is **no specific legal act** identified that explicitly grants NZIA strategic projects, including CCS, **priority or highest national/public-interest status**. However, Croatia does have a legal instrument, the **Act on Strategic Investment Projects of the Republic of Croatia**, which can be used for private, public or public–private investments in **energy, transport, infrastructure, environmental protection, public utilities, technology**, etc. (non-exhaustive list, Art. 2). This mechanism **could potentially be applied** to CCS projects, but there is **no clear evidence** that CCS has been formally brought under this framework as an NZIA strategic category. |
| Appropriate handling | **Priority handling cannot be assessed** for CCS projects. |
| Croatia has a **strategic-investment framework** that might be used for CCS, but **no clear, NZIA-specific public-interest designation** for CCS projects is visible yet. | |
| **Criterion 5: Permin-granting duration** | Neither the Government Decision nor the NZIA information page specify **maximum permit-granting time limits** for NZIA projects, or refer explicitly to the **18-month cap** for $CO_2$ storage permitting under Article 16. No publicly available project-level documents for CCS/$CO_2$ storage show **application and decision dates**, so it is not possible to verify whether actual practice respects NZIA timelines. However, the **Act on Strategic Investment Projects** is designed to accelerate strategic projects by setting **specific deadlines** for each administrative procedure, and establishing an **Operational Group** that supports implementation in all phases. This could **indirectly support faster permitting** for CCS if such projects are designated as strategic under that Act. A guide for investors is available here. |

| | |
|---|---|
| There is **no explicit NZIA-aligned permit duration regime** for CCS in Croatia yet. Existing strategic-project tools could shorten timelines, but compliance with NZIA time limits **cannot be confirmed**. | |
| **Criterion 6: Storage transparency & annual reports** | |
| Transparency | Croatia submitted its **2024 Article 21 NZIA report**, but it is brief, and provides primarily **high-level, qualitative information** on CCS developments. The report summarises the existence of **several CCS projects**, and describes general storage potential and strategic ambitions. However, it does **not** include:<br>- Detailed **geological maps**,<br>- Site-specific capacity estimates,<br>- In-depth storage characterisation.<br>Outside the report, several steps indicate progress towards transparency:<br>• The **Croatian Hydrocarbon Agency (AZU)** states that Croatia has significant storage potential in **depleted oil/gas fields** and **deep saline aquifers**, especially in the north of the country.<br>• Croatia's **Recovery and Resilience Plan** allocates **€4 million** to:<br>o Develop an **"Atlas of geological structures suitable for $CO_2$ storage"**, and<br>o Conduct a detailed **feasibility study** for $CO_2$ storage at **Bockovac**.<br>• AZU reports that the **Bockovac deep saline aquifer** has already been characterised for $CO_2$ injection.<br>Existing public data sources include:<br>• Geological maps from the **Croatian Geological Survey**, although no maps **explicitly indicating $CO_2$ storage areas** are yet available.<br>• An **AZU data room** with centralised databases on hydrocarbon resources, geothermal water for energy purposes, and geological structures for gas storage and $CO_2$ disposal.<br>• Interactive maps from the **Ministry** for registers of hydrocarbons, geothermal waters and underground gas storages.<br>• Croatia's **NECP**, which estimates that onshore and offshore formations could store about **144 Mt $CO_2$** permanently.<br>These show that Croatia is **moving toward** full transparency but has **not yet released a complete public $CO_2$ storage atlas or database**. |
| Annual report publication | Croatia has submitted its 2024 NZIA Article 21 report, prepared by the Ministry of Economy. |

| | |
|---|---|
| Adequacy & accuracy of content | The 2024 report lists the thematic areas required by **Article 21(2)** (mapping, capture, transport, support measures, cooperation, etc.), but provides **only minimal detail** for each. As a result, it does **not meet the expected depth** of quantitative and site-specific information (storage capacity, injection rates, project pipelines, etc.). The limited level of detail makes it difficult to assess accuracy; the report largely **avoids specific quantitative claims**, reducing the risk of error but also **reducing transparency and utility**. |
| Croatia has submitted its Article 21 report and is **actively working on geological data and a $CO_2$ storage atlas**, but **publicly available storage data remain partial and high-level**. NZIA transparency requirements are **only partially met** at this stage. | |
| **Criterion 7: Transport infrastructure & access** | |
| Legal framework | There is **no standalone national law** yet that comprehensively regulates **$CO_2$ transport networks** in Croatia. However, in practice, Croatia is **developing $CO_2$ transport capacity linked to CCS projects**, leveraging existing gas infrastructure:<br>• Under the **GT CCS initiative ($CO_2$NTESSA project)**, Croatia plans to transport captured $CO_2$ by **pipeline** to the **Bockovac** storage site. This project aims to develop:<br>  ○ $CO_2$ transport pipelines,<br>  ○ Compression/cooling facilities,<br>  ○ Injection infrastructure at Bockovac,<br>  ○ With an expected storage capacity of around 15.8 Mt $CO_2$ over 25 years.<br>• The **Croatian Hydrocarbon Agency (AZU)** and **Plinacro** (state gas TSO) are working on **repurposing an existing gas pipeline** to transport $CO_2$ from the **Našice cement plant** to the injection location. This project is included in the **EU list of Projects of Common Interest (PCI)**, underlining its strategic and cross-border relevance.<br><br>In **September 2023**, the Croatian government formally designated the **$CO_2$ pipeline–storage system** as a **"strategic investment project of the Republic of Croatia"**, accelerating its implementation.<br><br>This suggests Croatia is **building a de facto framework** for $CO_2$ transport by integrating it into strategic CCS projects and reusing oil and gas infrastructure. |
| Fair third-party access rules | No explicit **third-party access (TPA)** rules for $CO_2$ transport and storage infrastructure are identified in publicly available legal texts.<br><br>Nevertheless, the planned **Bockovac project** is intended to **serve multiple $CO_2$ sources**, including both a **Croatian** and a **Hungarian cement plant**, implying **multi-user, hub-like infrastructure** rather than a single point-source project. This design suggests an **open-access orientation**, even if the regulatory framework for TPA has not yet been codified. |

| | |
|---|---|
| Cross-border co-ordination | Croatia and Hungary are jointly exploring projects to transport $CO_2$ from a **Hungarian cement plant near the border** to **Croatian storage**. This represents early **cross-border CCS cooperation**, linked to the PCI-listed GT CCS project. |
| Croatia **lacks a fully fledged legal framework** for $CO_2$ transport and access but is **progressing quickly at project level** via the GT CCS/ $CO_2$NTESSA initiative and cross-border cooperation. NZIA Article 22 is **partially being addressed in practice**, but the legal basis remains incomplete. | |
| **Criterion 8: Penalties** | |
| Adoption & scope | As of **November 2025**, Croatia has **not established a penalty regime** for failure to create or use $CO_2$ injection capacity. |
| Effectiveness, proportionality, dissuasiveness | With no penalties in place yet, effectiveness, proportionality and dissuasiveness **cannot yet be assessed**. |
| Croatia **does not yet meet** NZIA penalty requirements. | |

# Austria

| Criteria | Findings |
|---|---|
| **Criterion 1: Single points of contact (SPOC)** | |
| Designation and accessibility | Austria has designated **nine SPOCs**, one for each federal state (Land). There is **no central, government-run overview page** of all SPOCs. The Federal Ministry's NZIA page (BMWET) provides only a **very limited explanation** of NZIA fundamentals and links to state-level authorities.<br><br>The most practical overview is hosted by the **Austrian Federal Economic Chamber (Wirtschaftskammer Österreich – WKO)**, which lists contact points in the **state governments**, with **email addresses**. On the official EU listings, SPOCs are typically represented by **general ministry email addresses**, not named individuals. |
| Functionality | In practice, project promoters are expected to **email generic ministry inboxes** at Land level. These addresses are **not linked to specific responsible persons**, and the associated ministry's websites do **not provide additional NZIA guidance** or dedicated pages. This setup is likely to be **inefficient**, offering only a minimal, formal form of contact rather than a user-friendly SPOC service. |

| | |
|---|---|
| Austria has **formally designated state-level SPOCs**, but the use of **generic ministry email addresses and lack of detailed guidance** makes the system **weak and likely dysfunctional in practice**. | |
| **Criterion 2: Centralised online access** | |
| Existence and accessibility | The **WKO NZIA pages** act de facto as the **central online access point.** They compile **links to state-level SPOC** and provide basic information on NZIA and related topics. However, these WKO pages are **not clearly anchored in official government portals** and are not well integrated into Austria's **public administration web architecture**. |
| Functionality | The WKO NZIA page includes **some remarks** on the permit-granting process, and provides information on:<br>○ **Dispute settlement**,<br>○ **Financing and investment services**,<br>○ **Funding options** at both EU and national levels.<br>However, it **does not** provide information on **business support services** specifically tailored to NZIA projects, and does not function as a true one-stop portal with online submissions, tracking tools, or integrated guidance across authorities. |
| Austria has a **partial centralised entry point** via WKO, but it is **not a fully-fledged government one-stop NZIA portal**, and it lacks key Article 7 elements, especially integration and business support content. | |
| **Criterion 3: Administrative support** | No **dedicated NZIA-related administrative support scheme** is in place:<br>• No specialised support unit,<br>• No publicly available **guidance notes, templates, or permit toolkits** for NZIA projects,<br>• No specific CCS helpdesk or facilitation service. |
| Austria offers **no structured administrative support** for NZIA/CCS project promoters at this stage. The criterion is **not met.** | |
| **Criterion 4: Priority/public-interest status** | |
| Applicable to CCS | Austria currently **bans $CO_2$ storage** (status as of November 2025). Consequently, **no CCS projects** can be designated as NZIA strategic projects or receive formal public-interest status in practice. Public and political debate on potential CCS law reform is ongoing, but **no specific priority status** for CCS has been introduced. |
| Appropriate handling | With CCS still banned, there is **no application** of NZIA-style priority handling (e.g. overriding public interest status, fast-track procedures). |
| Austria **cannot yet implement priority status for CCS**, as storage remains prohibited. The NZIA priority criterion is **not met**. | |
| **Criterion 5: Permit-granting duration** | Ongoing reform of the **Austrian carbon storage law** aims to **reflect NZIA criteria**, including permit-granting duration requirements. However, no concrete legal provisions are yet in force that **codify the ≤18-month cap** or equivalent statutory deadlines for $CO_2$ storage permitting, and no project-level cases exist to assess actual practice. |

| | |
|---|---|
| Austria is **planning** to address NZIA permit-duration requirements in future reforms, but as of late 2025 **no compliant regime is in place** and no practice can be assessed. | |
| **Criterion 6: Storage transparency & annual reports** | |
| Transparency | As of late 2025, **no fully public dataset or map** of $CO_2$ storage sites (saline aquifers, decommissioned fields, etc.) has been published. Work is ongoing to **develop and release** such information, but details are **not yet accessible**. |
| Annual report publication | Austria **has not published** its first Article 21 annual report. |
| Adequacy & accuracy of content | Austria **has not published** its first Article 21 annual report. |
| Austria is **still in the preparatory phase**; publicly available storage data and NZIA-style reporting are **not yet in place.** Austria **has not published** its first annual report. Therefore, this criterion is **not met.** | |
| **Criterion 7: Transport infrastructure & access** | |
| Legal framework | Austria is currently **developing its legal and strategic framework** for $CO_2$ transport infrastructure:<br>• A **feasibility study** was commissioned and published in 2024 (AIT_Bericht).<br>• An **overview page** presents the ongoing **Carbon Management Strategy** and the reform process of the **Austrian Carbon Storage Act**<br>Key features (in development):<br>• Designing a **national strategy** to connect $CO_2$ capture sites with storage locations (likely abroad, given the current storage ban).<br>• Working on fair, non-discriminatory access rules and **designation of competent authorities** for access decisions.<br>• The **legal framework for $CO_2$ transport** is in an **active reform phase**, not yet finalised. |
| Fair third-party access rules | Austria is **working on** implementing **fair third-party access rules** for $CO_2$ transport networks and storage sites, ensuring **non-discriminatory access**, and clarifying which authority will oversee access disputes. These rules are **not yet fully implemented**. |
| Cross-border coordination | Austria is engaging in **cross-border CCS cooperation**, including:<br>• **MoUs and regional coordination** with neighbouring EU countries (e.g. cooperation with **Denmark**),<br>• Participation in processes to facilitate **integrated $CO_2$ transport and storage infrastructure** beyond its borders. |

| | |
|---|---|
| Austria's transport and access framework is **under development**: feasibility work, strategy development and cross-border cooperation are underway, but **no complete legal regime or infrastructure exists yet**. NZIA Article 22 is **partially addressed at planning level**, not in implementation. | |
| **Criterion 8: Penalties** | |
| Adoption & scope | Penalties for NZIA-related non-compliance (e.g. failure to create or use storage capacity) are **in development**, with **no concrete legal instruments** or draft penalty structures publicly known yet. |
| Effectiveness, proportionality, dissuasiveness | In the absence of a defined penalty regime, effectiveness, proportionality and dissuasiveness **cannot be assessed.** |
| Austria currently **has no NZIA-compliant penalty framework**. This criterion remains **unmet** pending further legislative work. | |

# France

| Criteria | Findings |
|---|---|
| **Criterion 1: Single points of contact (SPOC)** | |
| Designation and accessibility | France has **not yet designated a Single Point of Contact (SPOC)** for NZIA projects. The European Commission's official list shows: **"France – None currently."** No single national authority has been publicly appointed as the NZIA one-stop liaison for net-zero projects (including CCS) as of late 2025. As a result, CCS project promoters in France **lack a dedicated administrative body** clearly identified as their primary interface for NZIA permitting. |
| Functionality | In the absence of an NZIA SPOC, functions that Article 6 assigns to a SPOC (coordination of permits, guidance, electronic applications, link to dispute settlement) remain **distributed across existing administrations**. For CCS projects, developers typically interact with:<br>• The **Ministry for Ecological Transition** and associated services (for environmental authorization under the **"autorisation environnementale"** one-stop procedure),<br>• Possibly other ministries/directorates for **mining permits, building permits or industrial safety**.<br>However, there is **no dedicated CCS/NZIA contact point** that consolidates these steps into a single, coordinated interface. |
| France **does not meet** NZIA SPOC requirements: there is **no formally designated SPOC**, and CCS developers must navigate multiple authorities rather than a single contact. | |
| **Criterion 2: Centralised online access** | |

| | |
|---|---|
| Existence and accessibility | France does **not** appear to have a specific **NZIA one-stop web portal** for net-zero projects or CCS. There is **no public portal** combining the five Article 7 elements in one NZIA-focused interface. Existing French administrative portals and business formalities websites offer generic tools for industrial/environmental permits, company registration, but they **do not provide a dedicated NZIA or CCS section**.<br><br>The **Ministry for Ecological Transition** has a **CCUS web page**, but it mostly provides:<br>• General information on CCUS technology,<br>• A high-level overview of its status in France,<br>• Without acting as a consolidated NZIA portal. |
| Functionality | The Article 7 requirements (SPOC information, full permit overview, dispute handling, financing & funding info, business support services) are **not consolidated online.** |
| France **does not currently comply** with NZIA Article 7 on a centralised "one-stop" online access point for NZIA/CCS projects. | |
| **Criterion 3: Administrative support** | General **CCUS guidance** exists, but **formal administrative support tools** for CCS project promoters are still limited:<br>• The Ministry of Ecology has published information explaining the **CCUS value chain** and the national context.<br>• The July 2024 report **"État des lieux et perspectives de déploiement du CCUS"** provides a structured overview of CCUS pathways and the state of play in France.<br>• In 2024, a **call for expressions of interest** gathered CCS project proposals, demonstrating outreach to industry, but *not* a structured support service (more details on the call here).<br><br>However, there is no clear evidence of CCS-specific **FAQs**, dedicated **permitting toolkits**, standardised **application dossiers** or step-by-step guides for CCS projects, or named **support units** that assist with NZIA compliance, reporting or public engagement.<br><br>Separately, **ADEME** (the ecological transition agency) has developed **sectoral transition plans (PTS)** with stakeholders in energy-intensive sectors (cement, steel, aluminium, chemicals, glass, paper/cardboard), defining **decarbonisation trajectories**, in which CCUS plays a role for some sectors. |
| France provides **strategic and technical guidance** on CCUS, but **no dedicated administrative support scheme** for NZIA/CCS permitting is yet in place. Article 8 is only **partially fulfilled**. | |
| **Criterion 4: Priority/public-interest status** | |

| | |
|---|---|
| Applicable to CCS | To date, **no CCS project** in France has been granted **strategic** or **major public-interest** status in the NZIA sense. Under French law, there are specific statuses for **projects of general interest** and **projects of major national interest** **(projet d'intérêt majeur national – PINM)**. These mechanisms are used to **facilitate and fast-track strategic industrial investments**. In July 2024, four decrees granted PINM status to certain industrial projects, but **none of them are CCS projects.** |
| Appropriate handling | Because no CCS projects have received such status, there is **no example** of CCS being processed under a special priority framework. |
| France **has not yet used its strategic-project tools for CCS** and has **not designated any CCS project as a NZIA "strategic project" or equivalent**. | |
| **Criterion 5: Permin-granting duration** | National law **has not yet been fully aligned** with this 18-month cap. For projects treated as PIC/PIM (large industrial projects), current French regulations allow permitting to last up to **24 months**, with an option to extend by an additional **3 months** if necessary. |
| France **has not codified** the NZIA 18-month cap in its permitting framework; current timelines for comparable projects can reach **more than 24 months.** | |
| **Criterion 6: Storage transparency & annual reports** | |

| | |
|---|---|
| Transparency | France has a long-standing framework for **geological data transparency**, primarily through **BRGM**, the national geological survey:<br>• Since 2006, BRGM has run the **"Minergies"** portal, releasing subsurface data (well logs, seismic surveys, etc.) when confidentiality periods expire.<br>• Under French Mining Code **Art. L.413-1**, subsurface data can be confidential for up to **10 years**, unless earlier release is agreed.<br><br>NZIA Article 21(1) requires publication of geological data for **all areas where $CO_2$ storage could be authorised**, while protecting legitimate confidentiality. In response, the French government plans to:<br>• **Amend national law** to shorten confidentiality periods to:<br>  ○ **1 year** for well data,<br>  ○ **3 years** for surface geophysical data,<br>• Applicable to **all subsurface operators** (mining, storage, etc.).<br><br>Additionally, **$CO_2$ storage is in principle allowed across the entire French territory** (France did not restrict storage geographically).<br><br>Key public resources include:<br>• Cadastre minier (mining cadastre),<br>• **Comité Professionnel du Pétrole**,<br>• **Portail français des ressources énergétiques du sous-sol**,<br>• **BRGM:Estimations des capacités de stockage de $CO_2$ en France métropolitaine**,<br>• **EVASTOCO2:** national mapping of geological $CO_2$ storage capacities.<br><br>The **EVASTOCO$_2$ study**, led by BRGM under DGEC supervision, estimated approx. **1.1 Gt $CO_2$** capacity in closed structural traps, and approx. **3.7 Gt $CO_2$** in deep saline aquifers, on French metropolitan territory. The Ministry explicitly notes that producing this inventory "responds to the obligations of publishing a national atlas of potential $CO_2$ storage capacity under the NZIA". |

| | |
|---|---|
| Annual report publication | France submitted and published its first **NZIA Article 21 annual report** in **December 2024**.<br>Overall, the report is:<br>• **Granular and comprehensive**,<br>• Includes data tables, maps and annexes,<br>• Aligns with the national CCUS strategy, and<br>• Appears to meet all NZIA Article 21 content requirements. |

| | |
|---|---|
| Adequacy & accuracy of content | The 2024 report covers all key NZIA points in depth. Highlights include:<br>• **Ongoing $CO_2$ projects:**<br>  ○ Overview of existing and planned **capture projects**, with expected capacities and commissioning dates.<br>  ○ France estimates **4–8 Mt $CO_2$/year could be captured by 2030** from first-wave projects.<br>  ○ Several industrial CCS projects (e.g. **Eqiom's Lumbres cement plant**, **Lhoist's Rety lime plant**) have secured funding, each aiming to capture approx. **0,6–0,8 Mt $CO_2$/year** by ~2028.<br>  ○ Further projects are in the pipeline (e.g. **Lafarge** plants at Martres-Tolosane and Le Teil targeting ~0.2–0.65 Mt $CO_2$/year).<br>  ○ Annex I details volumes, timelines and project statuses.<br>• **Storage & transport mapping:**<br>  ○ Annex II maps **$CO_2$ storage and transport projects**, including their status.<br>  ○ Confirms only **one $CO_2$ storage exploration permit** application so far (Grandpuits formation), which is under review with an **18-month regulatory review timeframe**.<br>  ○ Annex II and III show locations of major emitters, planned infrastructure, permit status, FID dates and commissioning timelines.<br>• **National support measures:**<br>  ○ Late 2024 launch of the **"AO GPID"** competitive call for large industrial decarbonisation projects, **explicitly including CCS and permanent CCU** (e.g. mineralisation).<br>  ○ This scheme **provides subsidies**, including contributions to $CO_2$ **transport and storage OPEX**; bids due in **May 2025**, winners announced by **end-2025**.<br>  ○ Complementary funding for $CO_2$ transport pre-engineering under **ZIBaC (Zones Industrielles Bas Carbone)**, covering up to **50% of study costs**.<br>• **National CCUS strategy & targets:**<br>  ○ The report aligns with the national **CCUS strategy (published July 2024)**.<br>  ○ Capture targets reiterated:<br>  ▪ **4–8 Mt $CO_2$/year by 2030**,<br>  ▪ **12–20 Mt $CO_2$/year by 2040**,<br>  ▪ **30–50 Mt $CO_2$/year by 2050**.<br>• **Bilateral & regional cooperation:**<br>  ○ Ongoing **ratification of the London Protocol 2009 amendment**, enabling cross-border $CO_2$ export for storage (delayed by 2024 parliamentary dissolution but expected in 2025).<br>  ○ Active membership in the **North Sea Basin Task Force** and the **Mediterranean CCS Initiative** (plans updated in late 2024).<br>  ○ **Letter of Intent with Norway (2022)** and further cooperation steps towards a Franco-Norwegian CCS agreement once the London Protocol is ratified (e.g. potential use of **Northern Lights** storage).<br>  ○ **Letter of Intent and cooperation agreement with Denmark (2024)** on CCS.<br>  ○ Involvement in **EU PCI/PMI** transport projects listed in Annex II. |

| | |
|---|---|
| France provides **one of the most complete and transparent geological and project information sets in the EU**, with a published **$CO_2$ storage atlas** and a robust Article 21 report. NZIA transparency and reporting requirements are **fully, and in practice strongly, met**. | |
| **Criterion 7: Transport infrastructure & access** | |
| Legal framework | **$CO_2$ storage** is already regulated in France through the **CCS Directive transposition (2010), which was transposed** via amendments to the **Mining Code** and **Environment Code** (specific law transposing the CCS directive into respective French codes can be found here). The legal framework allows $CO_2$ storage permits anywhere on French territory (no geographic opt-out).<br><br>The **Ministry for Ecological Transition** (through its subsurface resources services - BRGM) acts as the **national authority** for $CO_2$ storage. Permitting procedures include **exclusive exploration permits** and **storage concessions** under the Mining Code.<br><br>In 2011, France published **detailed guidelines on safe $CO_2$ storage** through its risk-prevention authority.<br><br>For **$CO_2$ transport infrastructure,** France is developing a **dedicated regulatory framework**:<br>- In 2023, the **Energy Regulatory Commission (CRE)** was tasked with defining rules for $CO_2$ networks.<br>- CRE created a **CCS working group**, and by late 2024 had issued **recommendations** on:<br>▪ third-party access,<br>▪ tariff structures,<br>▪ regulation of pipeline networks and liquefaction/export terminals.<br>- CRE's final report (end of 2024) is expected to inform **new legislation** in 2025.<br><br>The policy objective is to have initial **$CO_2$ pipeline networks operational by around 2028**, with a clear regulated regime for **investors and users**. Additionally, on 12 April 2024, the government announced a **Mining Code reform**, included in the broader **"Simplification of Economic Life"** bill, aimed at **simplifying and accelerating permits** for $CO_2$ storage and related pipelines, including reducing **exploration permit processing times** from 12–18 months down to around **6–9 months**. |

| | |
|---|---|
| Fair third-party access rules | Non-discriminatory access is being built into the French legal framework. CRE's work explicitly focuses on **third-party access and tariffs** for future $CO_2$ pipelines and terminals. The future legislation based on CRE recommendations is expected to codify:<br>• **Transparent, regulated tariffs**,<br>• Shared access to **pipeline capacity**,<br>• Formal **open-access rules** consistent with the CCS Directive and NZIA goals.<br><br>In practice, France is promoting **regional $CO_2$ hubs** and **open-access export terminals**, using programmes like **ZIBaC** to fund shared infrastructure studies. $CO_2$ pipelines are likely to **serve multiple emitters**, not only a single owner. |
| Cross-border co-ordination | France is highly active on **cross-border CCS coordination**:<br>• **London Protocol 2009 amendment**:<br>  ○ Ratification underway to remove legal barriers to **exporting $CO_2$ for storage** abroad.<br>  ○ Once ratified, this will enable French $CO_2$ to be sent to **Norwegian, Danish or other North Sea storage sites**.<br>• **Regional initiatives**:<br>  ○ **North Sea Basin Task Force:** cooperation on shared $CO_2$ infrastructure with other North Sea states.<br>  ○ **Mediterranean CCS Partnership:** exploring joint CCS options in the Mediterranean region.<br>• **Bilateral agreements**:<br>  ○ **France–Norway** Letter of Intent (2022) and further steps towards a CCS treaty for access to Norwegian storage (e.g. Northern Lights).<br>  ○ **France–Denmark** Letter of Intent and cooperation agreement (2024) on CCS and storage in Danish North Sea hubs.<br>• **EU projects**:<br>  ○ Participation of French emitters in **PCI/PMI $CO_2$ transport projects**, aligning national infrastructure plans with EU-wide corridors.<br><br>France's national strategy emphasises **"safe and non-discriminatory access"** to $CO_2$ transport, both domestically and cross-border. |

| | |
|---|---|
| France has a **solid legal basis for storage**, is rapidly building a **$CO_2$ transport regulatory regime**, and is **very active in cross-border coordination**. While pipelines are not yet operational, France is clearly **on track to meet NZIA transport and access objectives**, with a strong emphasis on open, regulated third-party access. | |
| **Criterion 8: Penalties** | |
| Adoption & scope | As of late 2025, France has **not yet adopted** a specific **NZIA Article 23 penalty regime** |
| Effectiveness, proportionality, dissuasiveness | Without a dedicated penalty framework, effectiveness, proportionality and dissuasiveness **cannot yet be assessed**. |
| France **still needs to establish** a clear penalty regime for non-compliance with NZIA $CO_2$ storage obligations; this NZIA criterion is **not yet met**. | |

# CONCLUSION

The first edition of the Article 23 Member State Compliance Tracker reveals significant differences in the pace and completeness of NZIA implementation across the eleven Member States we looked at. A small group of countries has already put in place substantial enabling frameworks, while others remain at very early stages, with much of the implementation still missing. While progress is far from uniform, common trends and leaders seem to have already emerged.

The Netherlands, Denmark, and Italy form a cluster of frontrunners. The Netherlands and Denmark remain the clear leaders in CCS deployment, with Italy having recently stepped up its efforts and joining the group. This is not surprising: all three countries have substantial $CO_2$ storage potential to develop, positioning them as early movers able to provide a much-needed service to emitters in their regions. The Netherlands has an active SPOC, clear permitting procedures, and strong geological transparency, with pipeline transport infrastructure under construction. Although penalties and other details are still pending, its administrative and regulatory infrastructure is largely in place.

Denmark emerges as another strong early mover with a functioning SPOC, a highly developed one-stop-shop with dedicated coordinators, electronic submissions, pre-application guidance, and legally defined processing deadlines of 12–18 months. Its priority-status framework is also one of the most advanced: CCS infrastructure is explicitly recognised as a national interest, and Denmark has introduced reforms to limit suspensive appeal effects for CCS projects. Denmark also performs well on storage transparency and cross-border cooperation and has begun establishing a transport framework through the Subsoil Act and the 2024 Consolidated Act on pipeline transport of $CO_2$. The main elements still under development include a NZIA-compliant permitting portal and the detailed $CO_2$ transport law foreseen in national agreements. A penalty regime is already being drafted, and is on track to being adopted by the deadline, though its compliance with NZIA requirements is yet to be determined. Overall, Denmark's structures are significantly more advanced than most Member States.

Italy also continues to position itself ahead of the curve, benefitting from long-standing CCS-specific

legislation, strong institutional structures, detailed geological transparency, and comprehensive Article 21 reporting. A new 2025 decree on $CO_2$ transport networks creates important momentum. While the SPOC, portal integration, and priority designation still need alignment with the NZIA, Italy has a clear regulatory direction and comparatively strong progress on NZIA implementation.

A second group, Germany, Poland, and Hungary, show partial progress but lack full operational readiness.

Germany is currently in transition: the recently passed Carbon Storage and Transport Act is set to provide a major leap forward with clear rules for permitting, access frameworks, priority handling, and penalties. However, fragmented administrative structures and limited centralised online access mean that much remains incomplete while the old storage ban is phased out.

Poland has a designated SPOC and strong geological transparency but lacks NZIA-aligned administrative support, priority mechanisms, and $CO_2$ transport related measures. Several reforms are planned. including a CCS Act and a national CCS strategy, and progress may accelerate once these are adopted.

Hungary provides detailed geological reporting and a high-quality Article 21 submission, yet little else is in place: no SPOC functionality, no portal, no administrative support, no priority status, no permit timelines, and no transport framework. While policy intentions are emerging, concrete implementation remains very limited.

Finally, Romania, Austria, and Ireland remain at the very beginning of NZIA implementation. All three show very limited enabling measures and currently lack fully functional SPOCs, centralised portals, priority frameworks, and transport regulation. Romania's geological transparency is hindered by data-classification constraints, while Ireland is still putting in place the basic governance structures for CCS. Austria has formally designated SPOCs, but these function largely as generic email inboxes with no substantive guidance. Across all three countries, substantial foundational work remains ahead before NZIA compliance can meaningfully progress.

Across the eleven assessed Member States, several common patterns emerge. Most countries have made their strongest progress in geological transparency and Article 21 reporting, which are generally the most advanced and consistently implemented elements. In contrast, administrative measures, such as SPOCs, centralised portals, and project guidance, remain uneven, with many online platforms still lacking CCS-specific integration and clarity.

The designation of priority or public-interest status for CCS projects is beginning to take shape in a handful of countries, with Denmark offering the clearest and most developed example. However, such frameworks remain the exception rather than the rule, and most Member States have yet to formalise these mechanisms.

Similarly, $CO_2$ transport-infrastructure regulation is still largely incomplete across the EU. While several Member States have initiated legislative processes or published strategic frameworks, comprehensive and operational rules remain under development.

Finally, only one Member State adopted a formal penalty regime for Article 23 non-compliance. Slow movement on this criterion expected, as the deadline for establishing penalties is 30 June 2026, but it nonetheless represents a critical element for ensuring effective enforcement of the injection-capacity obligation.

Looking ahead, the coming year will be decisive for closing the enabling and enforcement gaps identified in this first tracking report. **Several Member States, notably Germany, Denmark, Italy, and Poland, already have draft legislation or regulatory reforms underway that, once completed, could significantly strengthen their alignment with the NZIA's requirements. Finalising and op-**

**erationalising these measures will be essential for ensuring that permitting, transport access, and enforcement structures are fit for purpose by the time obligated entities begin scaling up project development.**

For those Member States where NZIA implementation remains at an early stage, the next steps are more fundamental. **Countries that have yet to establish basic administrative and legal frameworks, including a clearly functioning SPOC, a centralised and CCS-relevant permitting portal, defined permit pathways, and transparent geological data publication, will need to progress rapidly.** Timely implementation of these baseline systems will provide the clarity and predictability needed for obligated entities to deliver their share of the 50 $MtCO_2$ annual injection target, creating the conditions for smoother project development, reduced uncertainty, and stronger investor confidence.

A critical turning point will come in June 2026, when **Member States must have fully established their penalty regimes under Article 23.** These regimes represent the core enforcement mechanism behind the injection-capacity obligation. To be effective, they must be dissuasive, proportionate, and predictable, **ensuring that compliance and delivery of injection capacity is the economically rational choice for obligated entities, and that non-delivery carries a clear and credible financial consequence**. The introduction of penalties will also mark the transition of Article 23 from a planning exercise into a legally enforceable obligation. Because Article 23 is an EU-wide requirement shared across 11 Member States, **there is a strong case for penalty regimes to be harmonised or at least aligned in stringency.** Significant divergence could distort investment signals, and undermine the EU's ability to act as a united front in industrial decarbonisation. **Comparable levels of penalties will therefore be important not only for effectively fighting climate change, but also for retaining long-term industrial competitiveness within Europe as the continent builds a functioning single market for the technological abatement of $CO_2$.**

Importantly, $CO_2$ storage capacity contributing to the Article 23 obligation can be developed in any Member State with suitable geology, not only in the 11 jurisdictions where obligated oil and gas entities are registered. As storage projects begin to materialise in a broader set of countries, it will become increasingly important to monitor enabling measures across the entire EU. Future editions of this tracker will therefore expand to additional Member States.

Ultimately, the EU's ability to meet its 2030 injection-capacity target will also depend on the speed, clarity, and completeness with which Member States put in place the enabling and enforcement structures required under the NZIA. These frameworks are essential for providing obligated entities the conditions they need to deliver the injection capacity on time. **This first assessment highlights some progress in a few criteria, while also exposing the considerable work still required to build a coherent and functional EU-wide enabling and enforcement framework. Ensuring timely and coordinated action in the months ahead will be essential for delivering Article 23 in full and on time, enabling Europe's industrial decarbonisation to move from paper to reality.**

## CONTACT


**Hanna Biro**
Policy Manager, Industrial Just Transition & CCS
Bellona Europa

Phone
Mobile +32 (0) 467 754 344

Online
Email: hanna@bellona.org
Website: eu.bellona.org

**William Druet**
Policy Advisor, CCS
Bellona Europa

Phone
Mobile +32 (0) 479 704 568

Online
Email: william@bellona.no
Website: eu.bellona.org


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