



Cross-border CCS beyond the London Protocol

Ingvild Ombudstvedt

SCCS Annual Conference 2024: Scaling Up CO₂ Transport & Storage for a Decarbonised Europe, 3 December 2024

Ingvild Ombudstvedt, IOM Law

IOM Law at a glance

- Founded January 2017.
- Specialized in CO₂ capture, transport, use and storage, including negative emissions, with extensive experience from oil and gas, international law and climate change policy.
- Six team members, based in Son (Norway), Tasmania (Australia) and New York (U.S.)
- Formal education from Norway, England, France, Denmark, Belgium, Hong Kong, Japan, Australia and the United States.



The London Protocol

- Stand-alone agreement that supersedes the London Convention.
- Implements a general ban on the dumping of waste and other matter at sea, with the exception of the waste and other matter listed in Annex 1 (reverse list).
- CO₂ was added to Annex 1 in 2006, thereby creating the legal basis in international environmental law to regulate the storage of CO₂ in sub-seabed geological formations.
- Export prohibition (art. 6)
 - 2009 Amendment
- 2009 Amendment is not yet in force.
 - 2019 Resolution

The London Protocol: 2009 Amendment

Notwithstanding paragraph 1, the export of carbon dioxide streams for disposal in accordance with annex 1 may occur, provided that an **agreement or arrangement** has been entered into by the countries concerned. Such an agreement or arrangement shall include:

- .1 **confirmation and allocation of permitting responsibilities** between the exporting and receiving countries, consistent with the provisions of this Protocol and other applicable international law; and
- .2 in the case of export to non-Contracting Parties, **provisions at a minimum equivalent to those contained in this Protocol**, including those relating to the issuance of permits and permit conditions for complying with the provisions of annex 2, **to ensure that the agreement or arrangement does not derogate from the obligations of Contracting Parties under this Protocol to protect and preserve the marine environment.**

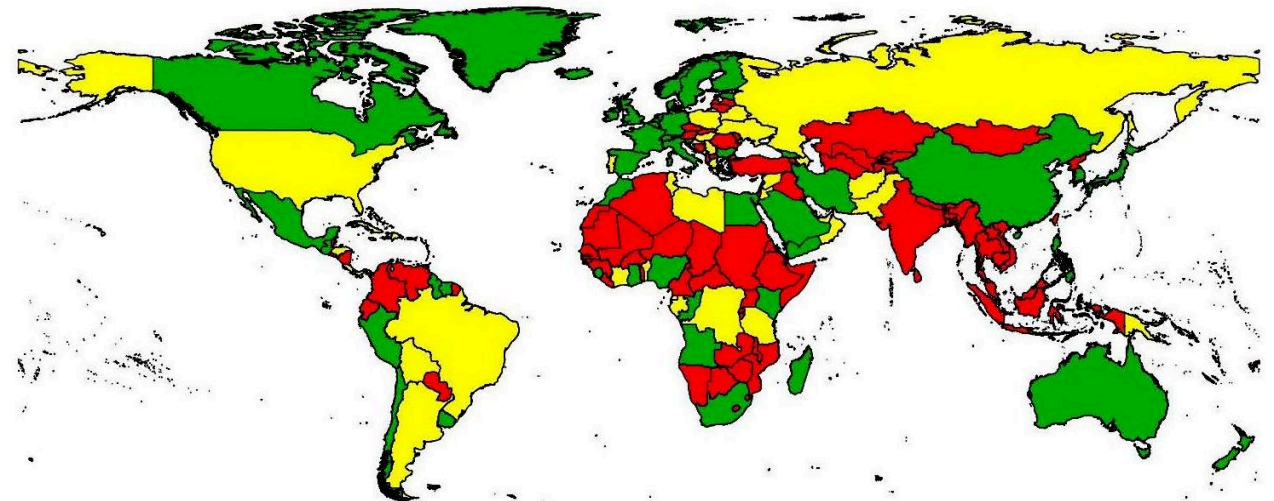
A Contracting Party entering into such an agreement or arrangement shall notify it the IMO.

→ 2019 Resolution: Deposit a declaration of provisional application with the IMO to provisionally take the amendment into use.

The London Protocol: cross-border status

- Acceptance of 2009 Amendment: Belgium, Denmark, Estonia, Finland, Iran, South Korea, the Netherlands, Norway, Sweden, and the United Kingdom and Switzerland (11).
- Provisional application: Denmark, South Korea, the Netherlands, Norway, the United Kingdom, Belgium, Sweden, and Switzerland (8). Work underway in several other countries.

Note: a Contracting Party does not have to accept the 2009 Amendment in order to provisionally apply it.



Map showing Contracting Parties to the London Convention (yellow), London Protocol (green) and non-Contracting Parties (red).
Source: International Maritime Organization

The London Protocol: cross-border status

1. Denmark-Belgium
2. Belgium-Netherlands
3. Netherlands-Denmark
4. Denmark-France
5. Denmark-Sweden
6. Denmark-Norway
7. Norway-Sweden
8. Norway-Belgium
9. Norway-the Netherlands

Some new additions: reference to national GHG inventory, annex 2 and the notification requirement

- Many more in the pipelines, e.g. Norway-Finland.
- Note: all the above are EU/EEA countries and Contracting Parties. Implications?

Regulatory developments supporting deployment

- **NZIA:**

- Seeks to ramp up geological storage resources within the EU, with petroleum operators being required to invest in geological storage sites.
- May potentially invest in storage resources in countries outside the EU, depending on agreements and national frameworks to store.
- NZIA requires the EC to publish guidelines for the CO₂ stream intended for geological storage.

- **Regulatory package for CO₂ transport:**

- Identified as a key enabler for large-scale deployment.
- The EU Commission has initiated preparatory work in view of a proposal for a future CO₂ transport regulatory package.
- May support cross-border infrastructure by addressing market barriers, business models, third-party access, and network planning.
- Standardization efforts may play an important role in the regulatory package.
- At the ICM Forum in Pau in October, six EU countries urged the EC to speed up the regulatory efforts.

Regulatory developments supporting deployment

- **EU ETS**
 - Ship transportation included in the ETS.
- **CRCF:**
 - Enables financial incentives for carbon removals.
 - Depends on volunteer markets to access the incentives.
 - May potentially enable geological storage outside the EU in the future.
 - Will be considered alongside the ETS for either co-existence or merging.



Regulatory developments supporting deployment

- 2023 Forum in Aalborg – Four Working Groups were established
 1. CO₂ infrastructure
 2. CO₂ standards
 3. Public perception
 4. The Carbon capture and utilisation
- The Working Group on CO₂ standards will advise the Commission on relevant issues for standardisation by drawing upon key action points.
 - It seeks to complement the ongoing European standardization work streams (CEN/TC 474), addressing issues such as:
 - CO₂ composition, purity, pressure and temperature as well as common guidelines regarding incidental associated substances from the source, capture or injection process that will support a competitive, integrated EU-wide CO₂ market by striking a balance between safety, reliability, cost effectiveness and risks across the CO₂ value chain.

CEN/TC 474: New standardization efforts in Europe



- European (EN) Standards are a key component of the European Single Market
- 34 countries are part of CEN (European Committee of Standardization)
- European Technical Committee (CEN/TC 474) initiated by the Netherlands to develop European Standards across the CCUS value chain
 - First plenary in Brussels 5-6 February, and second in Copenhagen 1-3 October.
 - More focus on the “U” and carbon accounting than ISO/TC 265
 - The new CEN/TC 474 aims to build on existing ISO/TC 265 standards, supplementing them with homegrown documents tailored to the needs of European stakeholders.
 - Ongoing efforts to establish work items and working groups.
 - Currently proposed standardization activities focus on CO₂ stream composition and quality, geological storage, pipeline transportation, and transportation by shipping.
 - May be asked by the European Commission to develop standards as an integrated part of EU frameworks.
 - Joint ISO/TC 265 and CEN/TC 474 plenary in March 2025.



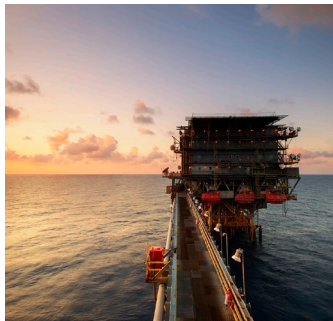
Cross-border EU/EEA and the UK

- **London Protocol and cross-border**

- Arrangements or agreements may benefit from more comprehensive provisions in the absence of a common legal baseline.

- **NZIA and the EU ETS**

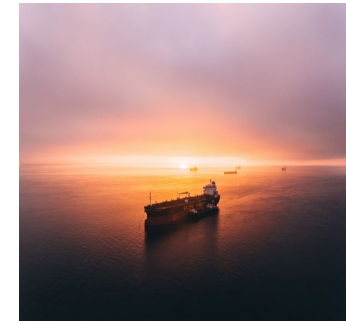
- Currently no financial incentives under the ETS for EU operators to develop storage resources in the UK.
- Depend on agreements.
- Potential for future linkages of carbon markets.
- EU taxonomy and investments in storage resources outside the EU pursuant to ISO:27914 (geological storage).



03.12.2024



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Cross-border EU/EEA and the UK

- **CRCF**

- Depend on agreements and approved methodology under volunteer markets.
- Potential for the use of ISO:27914 (geological storage).

- **Standardisation**

- The UK is part of CEN/TC 474 and is taking part in developing harmonised standards for European CCUS infrastructure.
- The UK is part of ISO/TC 265
 - The standards are used in frameworks and projects
 - CEN/TC 474 aims to adopt several of the ISO/TC 265 standards as European standards
- The European Commission is looking into using standards for CCUS to support an interoperable transport infrastructure in Europe



Acknowledgements



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Thank you!



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