



# Legal Framework for CCS and CCU

## Regulatory barriers and opportunities

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Nordic Energy Research Conference: Making CCS and CCU happen! Bergen, 12 December 2022

# IOM Law at a glance

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- Founded January 2017
- Specialized in CO<sub>2</sub> capture, transport, use and storage, including negative emissions, with extensive experience from oil and gas, international law and climate change policy
- Five team members, based in Son (Norway), Tasmania (Australia) and Copenhagen (Denmark)
- Formal education from Norway, England, Denmark, Belgium, Hong Kong, Japan, Australia and the United States



# A bird's eye view

## International law\*

United Nations Convention on Climate Change (UNFCCC)  
 KYOTO Protocol  
 PARIS Agreement  
 BASEL Convention  
 United Nations Convention on the Law of the Sea (UNCLOS)  
 LONDON Convention, 1972  
 1996 Protocol to the London Convention  
 OSPAR Convention

## EU law\*

CCS Directive - 2009/31  
 ETS Directive - 2004/35  
 Monitoring and Reporting Regulations- 601/2012  
 Industry Emissions Directive - 2010/75  
 Environmental Liability Directive - 2004/35  
 Renewable Energy Directive - 2018/2001  
 TEN-E Regulation - 2022/869

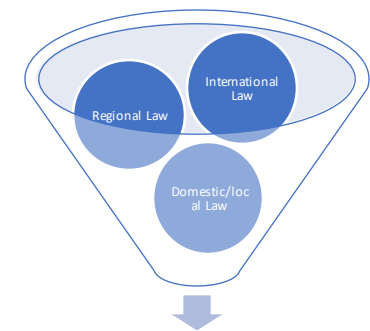
## Norwegian Laws\*

The Continental Shelf Act  
 The Petroleum Act  
 Greenhouse Gas Emission Trading Act  
 Act relating to CO<sub>2</sub> tax in the petroleum activity on the continental shelf  
 The Pollution Control Act  
 The Public Administration Act  
 The Planning and Building Application Act

## Norwegian regulations\*

The Pollution Control Regulations  
 Regulations for Transport and Storage  
 CO<sub>2</sub> safety Regulation  
 The petroleum regulations  
 The Greenhouse Gas Emission Trading Regulations  
 The Environmental Impact Assessment Regulations  
 The Planning and Building Application Regulations  
 The Framework Regulations  
 The Management Regulations  
 The Technical and Operational Regulations  
 The Activities Regulations  
 The Facilities Regulations

\*A non-exhaustive selection of relevant instruments



CCUS Regulatory Framework

# Cross-border collaboration under the London Protocol

- Cross-border transport for storage: Prohibition in Article 6 amended in 2009
- The amendment may be provisionally applied while waiting for sufficient ratification
- Provisional application is subject to
  - Unilateral declaration
  - Bilateral agreement
- Stricter requirements between a Contracting Party and non-Contracting Party than between two Contracting Parties
- Guidance available to Contracting Parties wanting to engage in cross-border activities



# Some of EU instruments for CCUS

- ETS Directive (2003)
  - Monitoring and reporting regulations and guidance: [Monitoring, reporting and verification of EU ETS emissions | Climate Action \(europa.eu\)](#)
  - Monitoring and Reporting Regulation (2018)
  - Accreditation and Verification Regulation (2018)
- Environmental Liability Directive (2004)
- CCS Directive (2009)
  - Guidance Document 2 (Characterization of the Storage Complex, CO<sub>2</sub> Stream Composition, Monitoring and Corrective Measures)
  - Guidance Document 3 (Criteria for Transfer of Responsibility to the Competent Authority)
  - Guidance Document 4 (Financial Security (Art. 19) and Financial Mechanism (Art. 20))
- Renewable Energy Directive (2018) – RED II
- TEN-E Regulations (2022) - Trans-European Networks for Energy





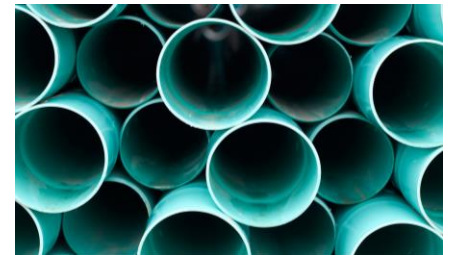
# Some observed challenges

- Industry, technology development and value chains move faster than the policy and legal frameworks
- Existing framework needs to be tested on commercial projects, to refine e.g.:
  - Business models
  - Third-party access
  - Financial security
  - Liability
  - Interface between agencies
  - Cross-border collaboration
- Ship transportation not included in the CCS Directive and ETS Directive (pending)
- Carbon removals not included in legal frameworks (pending)



# Addressing performance-based frameworks using standards

- Included or referred to in contracts or legal frameworks
- The EU CCS Guidance Documents recognize the relevance of technical standards and best practices to bridge gaps and address performance-based criteria
- Many countries have a long tradition of referring to technical standards for performance-based framework
  - Usually referred to as optional
  - Offshore petroleum operations rely on a large number of standards for technical operations and HSE
  - A number of the existing standards and best practices for petroleum operations may be reused for offshore CCS
  - CCS specific standards are already referred to and taken into use



# Goals and benefits of standards

- Promote knowledge transfer and dissemination;
- Unlock legal challenges;
- Provide industry-driven guidelines;
- Enable incentives;
- Support viable public-private partnerships and allocation of risk and liability;
- Enable cost reductions and economic growth;
- Support public acceptance.





# About the ISO TC265

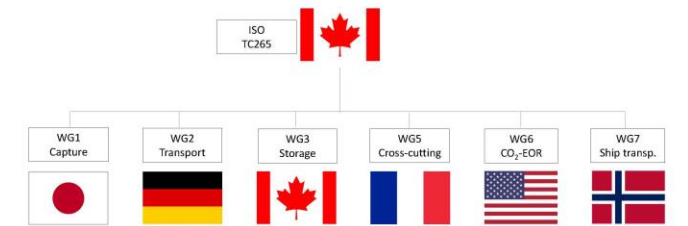
- Intent: *“prepare International Standards for the design, construction, operation, environmental planning and management, risk management, quantification, monitoring and verification, and related activities in the field of CCS”*
- Aim: facilitate the exchange of goods and services through the elimination of technical barriers to trade
- A wide range of stakeholders and countries involved
  - 24 countries participating
  - 14 observing members
  - 6 working groups (WG)
  - 9 Liaisons (+ liaison ISO committees)
- 12 publications
  - 6 technical standards
  - 6 technical reports
- Referred to in legal frameworks
  - Norwegian CO<sub>2</sub> safety regulation guidelines
  - US 45Q



# ISO TC 265 Standards for CCUS filling the gaps

The TC 265 standards provide

- Technology neutrality
  - No patented rights
  - No explicit descriptions of technology or product
  - Fits both onshore and offshore
  
- Regulatory neutrality
  - Performance-based rather than descriptive
  - No time periods specified
  - No criteria for reporting
  - No criteria for decommissioning
  - No explicit references to, e.g., transfer of liability
  
- Tapping into industry knowledge and experience
  - Fit for purpose



ISO TC265 Carbon Dioxide Capture, Transportation and Geological Storage

# Acknowledgements

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**CLIMIT**



Ingvild Ombudstvedt  
[iom@iomlaw.no](mailto:iom@iomlaw.no)  
+47 468 64 221

Thank you!

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