

Regulating Carbon Capture and Storage: EU, National and Crossborder Perspectives

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Implementation of Directive 2009/31/EC (CCS-Directive) in Germany and the perspective of RWE on CCS

VORWEG GEHEN

Transposition of the Directive 2009/31/EC (CCS-Directive) into German law

- Transposition into German law by the statute regarding demonstration and application of technologies for capture, transport and permanent storage of CO₂ on 07 July 2011;
- This statute was rejected by the Bundesrat (Federal Council of Germany) on 23 September 2011;
- Bundestag (Federal Parliament) and Federal Government have now the right to call the mediation committee: Presumably slight chances of success;
- Transposition into German law very likely not before the next election to the Bundestag in 2013; This means: There will be a CCS legislation in Germany at the earliest at the end of 2014.

Structure of Article 1 of the national CCS legislation from 07 July 2011 – Carbondioxide-Storage-Act

- The national CCS legislation includes 9 Articles, in which Article 1 is the Carbondioxide-Storage-Act. The other articles deal among others with – due to CCS - necessary amendments of the Emission-Trading-Act and Environmental-Impact-Act;

- The Carbondioxide-Storage-Act is divided into 7 Chapters and two Annexes:

Chapter 1 General Regulation

Chapter 2 Transport

Chapter 3 Permanent Storage

Chapter 4 Liability and Prevention

Chapter 5 Third-Party-Access

Chapter 6 Research-Storage-Sites

Chapter 7 Final Regulation

Annex 1 Characterisation and Assessment of potential CO₂-Storage-Sites

Annex 2 Criterias for a Monitoring-Concept and Follow-Up-Care

Chapter 1

General Regulation

§ 2 Scope of Application; Area appointment by Federal State Law

- The Carbondioxide-Storage-Act is a statute only for the demonstration of permanent storage of CO₂. Under this legislation only storage sites are permissible for which a complete application is filed not later than 31 December 2016!
- In § 2 (5) of the Carbondioxide-Storage-Act it is stipulated that the Federal States have the right to determine that testing and demonstration of permanent storage of CO₂ is only permissible or not permissible in certain areas of their territory. Federal States have the option on grounds of this legislation to ban geological storage of CO₂ in their territory.
- This legislation refers to Art. 4 (1) of the CCS-Directive „selection of storage sites“: Member States have the right to determine the areas from which storage sites are selected, including the right not to allow any storage in parts or in the whole of their territory.

Chapter 2

Transport

§ 4 Planning Approval for CO₂-Pipelines

- According to § 4 of the Carbondioxide-Storage-Act a planning approval is necessary for the installation, operation and substantial change of CO₂-pipelines. Part of this planning approval is an Environmental Impact Assessment (EIA).
- Planning approval means that no other permissions are required in order to proceed with the project.
- **Advantage:** One administrative procedure covers all legal aspects in terms of planning law, environmental law, etc.!
Important exception: The expropriation procedure is not covered by the planning approval!

Chapter 2

Transport

§ 4 Planning Approval for CO₂-Pipelines - Crossborder

- In order to get a planning approval for a CO₂-pipeline to a CO₂-storage in another EU Member State, the CO₂-storage must be installed and operated according to Directive 2009/31/EC on the geological storage of carbon dioxide (among others).
- The same requirement applies for a CO₂-pipeline to an offshore CO₂-storage in the Exclusive Economic Zone (EEZ) or the Continental Shelf of another EU Member State.
- Compulsory purchase is explicitly possible for cross-border CO₂-pipelines.

Chapter 2

Transport

Cross-border transport of CO₂ via pipeline under the German CCS legislation – unsolved legal issues

The German CCS legislation has not solved – at least explicitly – the following legal issues regarding CO₂-transport for the purpose of long-term geological storage in another EU Member State:

- Admissibility of CO₂-pipelines installed for a prospective increased usage (Third-Party-Access according to Directive 2009/31/EC; Avoidance of a repeated impact in nature and landscape due to repeated CO₂-pipeline installations)
- Planning, approval procedure and legal actions must be permissible without a granted CO₂-storage. The start of the installation should depend on the approval application of the CO₂-storage in the other MS.
- Statutory instruments concerning the safety of CO₂-pipelines are not implemented so far => problem for final investment decision.

Chapter 3

Permanent Storage

§ 17 Closure / § 18 Post-Closure-Obligations

- Draft of a Closure- and Post-Closure-Concept is mandatory;
- Obligation to close the storage site, if the approved amount of CO₂ is stored;
- After the competent authority has approved the closure of the storage site, the operator has to close it on his expense. The operator is responsible for precautionary measures against leakages and adverse effects on humans and environment.

Chapter 3

Permanent Storage

§§ 20 ff. Operator Obligations

- Permanent responsibility for monitoring and on-going obligation for adjustments to comply with the accepted state of scientific and technical knowledge;
- Operator has on-going obligations concerning long-term safety, adverse effects on humans and environment as well as precautionary measures;
- Competent authority has the power to concretise operator obligations with subsequent requirements;
- Competent authority can impose necessary requirements in order to ensure accordance with the approval;

Chapter 4

Liability and Prevention

§ 29 Liability

- There is an absolute liability for Third-Party-Damages for the operator (without evidence of negligence);
- If the action, asset or facility is capable of causing the damage, the causality is assumed. Disapproval of the assumption of causality due to „conventional operation“ is restricted. The operator has to prove in every single case – in addition to „conventional operation“ – that another incident could have caused the damage.

Chapter 4

Liability and Prevention

§ 30 Financial Security

- Competent authority decides about form and amount of financial security;
- Financial security must cover operator obligations:
 - from Carbondioxide-Storage-Act
 - from statutory claim of damages
 - from Emission-Trading-Act
 - from §§ 5,6 Environmental-Damage-Act;
- Annual adjustment of financial security;
- Operator has to prove financial security;

Chapter 4

Liability and Prevention

§ 31 transfer of responsibility

- Title to transfer responsibility to the state at the earliest 30 years after closure, if long-term safety is proven;
- CCS-Directive: minimum period to be no shorter than 20 years and less if evidence indicates that the stored CO₂ will be permanently contained;
- Before 30 years after closure the transfer of responsibility depends on the discretion of the competent authority;
- Operator has to provide follow-up-care contribution before transfer of responsibility. This contribution has to cover the supposed expense for 30 years of monitoring after transfer of responsibility.

RWE perspective on CCS

- CCS has the potential to become a keystone for a reliable and competitive energy supply (especially taking into consideration the ambitious EU climate change goals);
- Therefore: RWE will build all new coal-fired power-plants CCS-Ready and will focus on crossborder transport and storage options;
- But there are preconditions for large scale investments of RWE :
 - Public acceptance and political support of CCS on the national and local level;
 - Cancellation of the area apointment option by Federal State Law and no time limit for the application of the Carbondioxide-Storage-Act.

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Thank you for your attention!