

University College London
Centre for Law and the Environment, Carbon Capture Legal Programme
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Foreword

The CCLP EU Case Studies Project

The Carbon Capture Legal Programme launched the 'EU Case Studies Project' in January 2010. The project analyses the implementation of Directive 2009/31/EC on the geological storage of carbon dioxide ('CCS Directive') in selected European jurisdictions - the United Kingdom, Germany, Poland, Romania, Spain and Norway. Each jurisdiction, for distinct reasons, provides an example of different approaches to the transposition and to CCS in general.

The objective of the project is to identify some of the more subtle nuances in different legal cultures and to provide a better understanding of the rationale for national decisions in specific aspects of the implementation of the Directive. In particular, the focus is on those areas where the Directive leaves room for Member States' discretion or is ambiguous or silent. The project also considers the policy and political context within which the national legal and regulatory framework for CCS has emerged. The studies are deliberately designed to move beyond formal transposition measures to reveal more of the underlying dynamics and tensions involved in national implementation. Such elements are often crucial in driving domestic legal developments. The way in which EU Directives are implemented often reflects distinct legal and administrative traditions, and the case studies seek to present these in order to provide better insights on the development of CCS regulation.

The outcome of the project is a series of reports from the six jurisdictions, based on key legal and policy questions and on a critical reading of the CCS Directive. The CCLP has coordinated the overall research and has carried out the UK case study. Independent experts have been commissioned to carry out research in Germany, Poland, Romania, Spain and Norway.

Background on the EU transposition process¹

EU Member States have an obligation to adopt all appropriate measures to ensure the fulfilment of the obligations arising out of the Treaties governing the European Union or resulting from acts of the institutions of the Union.²

Directives are binding on Member States but only with respect to a result to be achieved, leaving considerable discretion to Member States as to the choice of form and methods to be used for their implementation. In contrast to regulations, the provisions of directives do not automatically become part of the national legal system, but require a national transposition process before doing so. In their transposition, Member States may rely upon existing law; amend existing legislation or pass wholly new legislation.

Each directive will specify a time limit for transposition, normally two years but sometimes three where complex administrative or legal changes are involved. The CCS Directive specified the date of 25 June 2011, which is just over two years after its coming into force.

The European Commission is in charge of ensuring the application of the treaties and the legal acts adopted by the institutions pursuant to the treaties.³ To fulfil this duty, the Commission enjoys enforcement powers against Member States, which are carried out by means of an infringement proceeding.⁴

¹ This paragraph is the extended version of a CCLP contribution to the International Energy Agency Carbon Capture and Storage- Legal and Regulatory Review- Edition 2 (May 2011). Available at www.iea.org/Papers/2011/ccs_legal.pdf.

² Treaty on European Union, Article 4.3. OJ C 191, 29.7.1992.

³ Treaty on European Union, Article 17.

⁴ Treaty on the Functioning of the European Union, Article 258. OJ C 115, 9.5.2008 (ex European Community Treaty, Article 226).

With respect to the transposition of directives, the Commission distinguishes between three categories of infringement proceedings:

- (a) non-communication cases, where a Member State fails to communicate to the Commission national laws or other measures transposing a directive within the specified time limit;
- (b) non-conformity cases, where the Commission considers a Member State's transposition of a directive into national law to be incomplete or incorrect;
- (c) 'bad application' cases, where the Commission feels that there has been a failure to apply a directive in practice, even though there has been correct transposition.

The formal stages of the infringement procedure consist of three phases:

- (a) a letter of formal notice from the Commission to the Member State, which then has two months to reply (pre-litigation);
- (b) a reasoned opinion issued by the Commission if the Member State's reply is not satisfactory, setting the details of the infringement and establishing a new deadline for compliance; and
- (c) referral to the Court of Justice of the European Union, if the non-compliance persists.

The Commission enjoys wide discretion as to when and whether to start an infringement proceeding, and a good deal of informal negotiation takes place to resolve the issue during the various stages of the process. In practice, however, once the deadline for transposition has passed without communication from the Member State, the Commission will automatically start an infringement proceeding based on a formal failure to communicate any national measures.

The vast majority of cases are settled without the need to refer them to the Court. If a case is brought before the Court and the Court rules against the Member State, the State must take all necessary measures to comply with the judgement.⁵ If the non-compliance persists, the Commission can refer the case to the Court again, recommending a financial penalty. The Court then has the power to impose financial sanctions on the Member State. Further to amendments made under the Lisbon Treaty coming into effect in 2010, non-communication has been given increased priority, since the Commission is now entitled to request the application of such sanctions upon the first referral to the Court.⁶

⁵ Treaty on the Functioning of the European Union, Article 260.2. (ex European Community Treaty, Article 228).

⁶ Treaty on the Functioning of the European Union, Article 260.3. (ex European Community Treaty, Article 228).

Key findings of this report

- Implementation of CCS technologies and the development of the first CCS demonstration plant are listed as one of the key measures to tackle greenhouse gas reduction in the Romanian National Programme for capture and storage of CO₂, within the framework of the Sectoral Research and Development Plan for the Industry (2010).
- Directive 2009/31 on the geological storage of CO₂ is transposed into the Romanian law by Government Emergency Ordinance (GEO) 64/2011. This is a framework law on geological capture and storage of CO₂, but will also govern the implementation of the first demonstration project in Romania. But GEO 64/2011 has not yet been confirmed by law voted on by Parliament. Romania complied with the deadline for transposition only in outline formal terms, as the implementing laws has yet to be adopted.
- GEO 64/2011 cannot be considered a transposition law on the real meaning, but rather a merely 'formal transplant' word-by-word of the provisions of the Directive within the Romanian legal system, with minimal institutional set up and no procedures on authorisation, monitoring and control, financial incentives and functioning of the central implementing authority.
- In May 2011, Romania applied for EU funding under the NER300 process for a demonstration process (GETICA), which intends to capture about 1.5 million tonnes CO₂ per year from an existing 330 MW unit of the Turceni coal-fired power plant for permanent storage in an onshore saline aquifer. A decision on the licensing for this project is expected by the end of 2011 and the beginning of operation is planned by December 2015. GETICA will be developed by a consortium of state-owned utilities, comprising Turceni Energy Complex SA (in charge of CO₂ capture), SNTGN Transgaz (the transport operator), and SNGN Romgaz (the CO₂ storage operator). Full and effective transposition is crucial to receive such funding.
- There is no specialized central institution responsible for CCS strategy and the implementation of the Directive in Romania and the existing governance structure appears very fragmented. The National Agency for Mineral Resources (NAMR) is the competent authority for capture and geological storage of CO₂, but a series of key responsibilities, including monitoring the storage complex, reporting to the European Commission, approving the monitoring plan and environmental protection are spread across a variety of Ministries and National Agencies. Regional and local authorities have no role or powers in this field.
- The opportunities for public participation in decision making concerning CCS are weak and unsatisfactory. There is no dedicated public body in Romania responsible for dealing with public engagement in CCS projects, and the opportunities for participation of local communities and non-governmental organisation are rather limited. This is exacerbated by a lack of information about issues of environmental impact assessment or risk assessment related to safety and human health concerning the GETICA project.

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TABLE OF CONTENTS

Foreword	2
1. Overview of governance structure and legal instruments	7
2. Policy objectives for CCS and the GETICA Demonstration Project	7
3. Timeline for CCS demonstration project implementation	9
4. Implementation of the Directive	10
4.1 Legislation and status.....	10
4.2 Main administrative bodies involved in the implementation of the Directive.....	11
4.3 Pore space ownership onshore and offshore	13
4.4 Long-term liability requirements	13
4.5 Transfer of responsibility	14
4.6 Financial security.....	14
4.7 Financial contribution for long-term stewardship.....	15
4.8 Conflicting uses of storage sites.....	15
6. Integration with existing environmental law generally	16
7. Discretionary and ambiguous provisions in Directive 2009/31	17
7.1 Field of application	17
7.2 Selection of the storage site	17
7.3 Exploration permit	17
7.4 Application for storage permit.....	17
7.5 Content of storage permit.....	18
7.6 Review and withdrawal of storage permit.....	19
7.7 CO ₂ stream acceptance and procedures	19
7.8 Monitoring.....	19
7.9 Reporting by the operator.....	20
7.10 Inspections	20
7.11 Measures in case of leakage or significant irregularities	20
7.12 Closure and post-closure obligations	21
7.13 Access to transport networks and storage sites	21
7.14 Dispute settlement.....	22
7.15 Transboundary cooperation	22
8. Conclusions and general remarks on the Romanian transposition strategy of Directive 2009/31	22

1. Overview of governance structure and legal instruments

In Romania only central public authorities have the legal competence for framing and implementing policies on geological storage of CO₂. The National Agency for Mineral Resources (NAMR) is the main implementing authority for capture and geological storage of CO₂, while the role of the Ministry of Environment and Forest is rather more supervisory. The Ministry of Economy, Trade and Business Environment is the responsible authority for the Romanian CCS demonstration project, GETICA. Romanian public administrative policy and administrative culture is highly centralized, and central government is represented locally through 42 prefects at county level. There are no regional structures with legal personality above the counties in Romania and thus the different regions have no say in policies. Local authorities have no competencies in the field of CCS, and projects cannot therefore be prohibited or prevented by political or policy decisions adopted at regional or local level.

The main legislative tools for legal approximation, aimed at realigning existing national laws to European Union requirements, are the law ('lege'), government emergency ordinance ('ordonanța de urgență a guvernului') and government decision ('hotărâre de guvern'). Only the laws are voted by the Parliament, while Emergency ordinances and government decisions are issued by the Government and later confirmed by a law adopted in the Parliament. This later law may amend the emergency government ordinance, and this is usually the case for most emergency government ordinances.

Directive 2009/31 on the geological storage of CO₂ is transposed into the Romanian law by Government Emergency Ordinance (GEO) 64/2011.⁷ This is the framework law on geological capture and storage of CO₂, but will also govern the implementation of the first demonstration project in Romania. A separate act, the Reasoning document ('Notă de Fundamentare') details the policy beyond the new piece of environmental legislation.⁸ GEO 64/2011 has not yet been confirmed by law voted on by Parliament. In Romania, Emergency Ordinances are used as a tool to speed up the approval of new legislation since the adoption of a law by the Parliament would take much longer time. In most cases there is not a real emergency. The situation was different for the CCS Directive, because the implementation deadline would have passed before a law could be enacted. Emergency Ordinances are confirmed by a law later on, but there is not a deadline for this and delays have no specific legal consequences. This process usually takes some months. In the case of the implementation of the CCS Directive, this law is required as soon as possible.

2. Policy objectives for CCS and the GETICA Demonstration Project

Thirty-five percent of the total electricity production of Romania is generated in energy plants based on coal. A high percentage, 41%, of Romania's energy resources is coal, whereas the rest is water (27%), nuclear energy (20%), hydrocarbons (12%) and wind (2%).⁹ Romania is committed to geological storage of CO₂ on its territory, but only in designated areas. Romania has an estimated total storage capacity of 22 gigatonnes for onshore storage. Out of this, 18 gigatonnes of CO₂ would be stored in saline aquifers, with the remaining of 4 gigatonnes in depleted oil and natural gas reservoirs. Romania considers it infeasible to implement CCS in all 229 industrial plants currently covered by the European Emission Trading Scheme (ETS). Only

⁷ Enacted on June 29, 2011 and published in the Official Journal of Romania on 30 June 2011 ('Ordonanța de urgență nr. 64 din 29 iunie 2011 privind stocarea geologică a dioxidului de carbon, Monitorul Oficial 461 din 30 iunie 2011).

⁸ All laws are accompanied by such a Reasoning Document which is not legally binding but explains the policy context for the legislation.

⁹ Reasoning Document, GEO 64/2011.

64 plants that release more than 100,000 tonnes of CO₂/year may be candidates for CCS as the economics for smaller projects is less feasible at this time. The application of GEO 64/2011 is limited to the territory of Romania, to its exclusive economic zone in the Black Sea, and the continental shelf of the Black Sea according to the requirements of the United Nations Convention on the Law of the Sea (UNCLOS), ratified by Romania in 1996 by Law 110/1996 (Article 3). No mention is made in GEO 64/2011 of enhanced hydrocarbon recovery (EHR).

On May 9, 2011 Romania submitted applications for co-financing of the CCS demonstration project, GETICA, to the European Investment Bank within the framework of the ETS New Entrant Reserve (NER300) Programme. GETICA was elaborated under the Action Plan for implementation of demonstration projects adopted by the Romanian Government on February 17, 2010. This action plan envisages the capture and storage of a minimum of 1.5 million tonnes CO₂ per year. The Financing Memorandum for the EU NER300 funding was developed by SC Energy Complex Turceni SA, under the name of the GETICA Project Company. It is a consortium of state-owned utilities, comprising Turceni Energy Complex SA (in charge of CO₂ capture), SNTGN Transgaz (the transport operator), and SNGN Romgaz (the CO₂ storage operator). SC Energetic Turceni is the largest electric power plant in Romania and covers 12.5% of the electric energy demand of Romania.

GETICA will be developed in southwest Romania in the most industrialized area of the country, responsible for 40% of total national CO₂ emissions (around 24.5 million tonnes/year emission)¹⁰. The project is officially coordinated by the Ministry of Economy, Trade and the Business Environment, with financial and technical support from the Global CCS Institute, Australia. The investment needed for the implementation of the project is around 1 billion EUR. The project was developed to capture about 1.5 million tonnes CO₂ per year from an existing 330 MW unit of the Turceni coal-fired power plant, and the CO₂ will be transported within 50 km of the capture site for storage at a depth of about 800 m in onshore saline aquifers. The proposed capture technology is based on Alstom Power's Chilled Ammonia Process (CAP), the company that was part of the consortium that prepared the feasibility study of the project. The Global CCS Institute offered Romania a 2.5 million EUR grant for the elaboration of the feasibility study.¹¹ After 2015 the plan is that the Turceni plant will function with 4 re-technologized electric plants for clean coal processing.

GETICA is part of the national strategy on electrical energy, and is mentioned in the document 'Components of the Energy Strategy for 2011-2035,'¹² as well as in the 'National Reform Program' issued by the Romanian Government in April 2011 within the framework of *Europe 2020 Strategy*.¹³

Implementation of technologies for capture and storage of CO₂ and the demonstration plant for geological storage of CO₂ is listed as one of the key measures to tackle greenhouse gas reduction, and the Ministry of Economy Trade and Business Environment has published the National Programme for capture and storage of CO₂, within the framework of the Sectoral Research and Development Plan for the Industry (2010).¹⁴

¹⁰ See *Getica CCS Demo Project- Summary* (March 2011), available at www.ispe.ro/ro/documente/Getica_CCS_Factsheet_February_2011.pdf, p 3.

¹¹ See information published by the Global CCS Institute on the Romanian CCS Demo Project (Getica) available at www.globalccsinstitute.com/resources/projects/romanian-ccs-demo-project-getica.

¹² See *Elemente de strategie energetică pentru perioada 2011 – 2035 Direcții și obiective strategice în sectorul energiei electrice DRAFT I*, p 19, available at www.cerere-finantare.ro/wp-content/uploads/2011/06/strategia_energetica_2011_2035.pdf.

¹³ See *PROGRAMUL NAȚIONAL DE REFORMĂ (2011 – 2013)* (April 2011), pp 86-87, available at www.dae.gov.ro/admin/files/PNR%202011-2013.pdf.

¹⁴ Ibid.

The brief information that is publicly available about GETICA mentions that Romania promotes both onshore and offshore projects,¹⁵ though GEO 64/2011 and the Reasoning document are silent on this matter. The focus of the implementing law and of the policy debate concerning the GETICA project is on the storage of domestically produced CO₂, and no mention is made in publicly available information of transboundary transportation of CO₂. However, Romania aims to be part of the European CO₂ transportation corridor.¹⁶

There are a number of policy objectives underlining the development of GETICA and CCS mentioned in the Preamble to GEO 64/2011: to continue the use of the thermo-electric utilities and related coal mines; extend CCS technology to all electricity producers in regions that use coal for electricity production (more than 4.000MW) as well as other industries such metallurgic and chemistry industries; Romania's integration into the European CO₂ transportation corridor; and finally an increase of the lifecycle and exploitation of depleted oil and natural gas reservoirs through the CO₂ injection.

There are no rules yet in Romania on financial incentives for CCS projects. The Reasoning document of GEO 64/2011 refers to a 12 months deadline (following entry into force of the framework law) for issuing rules on incentive schemes (so-called 'support/aid scheme') for the promotion of capture, storage and transport technology. These rules will be elaborated by the Ministry of Economy, Trade and Business Environment. This provision adds to the initial wording of the draft of the Reasoning document which simply stated that the scheme will be in line with Romanian and EU state aid law, but says nothing about the concept of the scheme.

3. Timeline for CCS demonstration project implementation

There is a tight schedule in place for the implementation of the demonstration project. The Romanian application for NER300 was submitted to Brussels on 9 May 2011.¹⁷ The proposed starting date for GETICA is 2013, with it coming into operation two years later.

In line with the aim of the Romanian Government to be successful in its application for EU funding, the following legislative roadmap was set up in the draft Government Decision issued in spring 2011:

- (a) Transposition of EC Directive before 25 June 2011 (in the form of a framework law setting the principles and the institutional framework);
- (b) Enactment of implementing laws on procedures concerning authorisation, monitoring and control (within 12 months of the date of entry into force of the framework law);
- (c) Enactment of rules on financial securities (within 9 months of the date of entry into force of the framework law);
- (d) Enactment of rules on the structure and competencies and staff of the main implementing authority, the National Agency of Mineral Resources (no deadline);
- (e) Enactment of rules on financial incentives (within 12 months of the date of entry into force of the framework law);

¹⁵ See information on Getica CCS- Demo Project published by ISPE, available at www.ispe.ro.

¹⁶ See the Preamble to GEO 64/1022. The draft version of GEO no.64/2011 contained a provision (Art 31) appointing two institutions (the National Agency for Mineral Resources and the National Regulatory Authority for Energy) to be the counterparts of the competent authorities of other Member States in case of transboundary transport of CO₂, but this provision is not found in the final version of the GEO.

¹⁷ See Press Release (9 June 2011), available at www.dce.gov.ro/Comunicate%5CComunicate_2011%5C09_iun_GETICA.htm.

- (f) Enactment of rules on transportation of captured CO₂ (within 12 months of entry into force of the framework law).

The Preamble of GEO 64/2001 sets the following deadlines for the demonstration plant:

- (a) Decision-taking on licensing of the operator, before 31 December 2011;
- (b) Starting date of operation, before 31 December 2015.

4. Implementation of the Directive

4.1 Legislation and status

The Romanian approach to transposition involves both the enactment of new legislation, beginning with a framework law and to be followed by secondary legislation, as well as amendments to existing related legislation. Transposition of the EU Geological Storage Directive follows a pattern typically seen with the transposition by Romania of other EU environmental legislation - domestic law transposing the Directive is minimalist, does not go beyond the textual provisions of the Directive, and follows its structure with almost the same wording except for minor, cosmetic changes.

Romania complied with the deadline for transposition without a significant delay, although only in formal terms, rather than having in place effective legal tools for the actual operation of the demonstration plants. GEO 64/2011 was issued on 29 June 2011, and entered into force by end of July.¹⁸ Compliance with the deadlines set in Directive 2009/31 can be seen as more of a political gesture to fulfil the conditions and requirements set up by the European Commission for applying to the EU NER300 funding. Even the form of legal instrument chosen (a Government Emergency Ordinance¹⁹) for the incorporation of Directive 2009/31 into Romanian law suggests that the new legal act was prepared and issued in an 'emergency'. The pressure to fulfil the conditions for a successful application for EU funding is not disguised, but is emphasized in the preamble of GEO 64/2011:

Non conformity with the requirements imposed by the documentation of the Demo project may result in the impossibility of achieving the target set for the reduction of greenhouse gas emissions, specifically those related to electricity power plants that function with coal, which requires the acquisition of greenhouse certificates and this could cause significant price increase of energy unit and may substantially reduce the sustainability of their further exploitation, affecting in last instance the security of the national energy system.

Several other environmental laws will be amended, including: the framework law on waters (Law 107/1996), Government Emergency Ordinance 68/2007 on environmental liability, Government Emergency Ordinance 78/2000 on the regime of waste. The draft ordinance also included for amendment the Government Decision 445/2009 on impact assessment of specific private and public projects and Government Decision 440/2010 on measures on the limitation of air emissions of certain pollutants coming from high burning installations. But for some reason

¹⁸ GEO 64/2011 entered into force within 30 days from its publication date, 30 June 2011 (M. Of. 461/2011).

¹⁹ It is a common practice in Romanian the use Emergency Government Ordinances to comply with the deadline for implementation of community legal acts. Romania has been repeatedly criticized for using this legislative tool for implementing EC law during the pre-accession period to the EU, but this practice did not change after EU accession.

these two pieces of legislation were not mentioned in the final version of GEO 64/2011, even though they are referred to in the Reasoning document.

The Government proposes to issue new legal acts on financial guarantees or equivalent measures for the economic entities that apply for storage authorisation within 12 months from the adoption of the proposed Government Decision on geological storage of CO₂. An Emergency Government Decision will be issued within 12 months on incentive schemes, and within nine months rules are expected on transparent and non-discriminatory access of transport operators to the transport networks and to the storage sites.

GEO 64/2011 does not develop or clarify the concepts used in the Directive and does not incorporate any more stringent criteria for the operator. This is also true for the competence and discretionary powers of the main implementing authority, the National Agency for Mineral Resources (NAMR). The law lacks procedural provisions on the authorisation, monitoring and control of geological storage and uses open-ended concepts such as 'all necessary measures', with the result that the rules on assessments and monitoring are not very clear. It seems that many of these details will be developed subsequently, perhaps within the context of the proposed demonstration project. For example, a 12 month deadline is set for issuing secondary legislation on procedural rules for authorisation, monitoring, and control. There are issues mentioned in the Preamble of the Directive which are not reflected in the body of the legislation, and no specific provisions additional to the actual text of the Directive are included, even though these could have usefully bridged the new rules with other related rules of the legislation incidental to storage of CO₂. In summary, Directive 2009/31 is entirely copied out in formal terms, but not properly transposed - we cannot talk of a transposition in the real meaning of the word, but rather of a transplant.

GEO 64/2011 lacks details on procedural rules and refers to a large set of other laws. To have a clearer idea of the effectiveness of implementation and the practical problems that may arise in enforcement it is therefore necessary to take into account the linkages and interplay of the new law with the related legislation. For example, the law on integrated pollution and prevention control (GEO 152/2005 as amended 40/2010) and the law on Environmental Assessment 445/2009 have yet to be amended in line with the EU Geological Storage Directive. It seems that the rules on operation and monitoring and control are more developed than those on the starting up of the activity (including its permitting), and this may cause difficulties for the implementation of the demonstration project if the secondary legislation is not enacted in time. Without the secondary legislation in place, GEO 64/2011 is merely a framework that goes no further than stating the principles and that some future rules will be enacted on procedures on authorisation, monitoring and control, financial incentives and the functioning of the central implementing authority (almost repeating word for word the corresponding requirements resulting from the Directive). The final version of GEO 64/2011 as enacted is even weaker than the draft since in some aspects the deadlines for issuing the secondary legislation were withdrawn from the text, or replaced with a one line rule. Furthermore, missing from the final version but contained in the draft are provisions that acknowledged the right of the European Commission (in line with the text of the EC Directive 2009/31) to issue a non binding approval on storage authorisation and on transfer of responsibilities. Such approvals would have assisted the Romanian authorities in gaining experience in a new field, and based on European best practice.

4.2 Main administrative bodies involved in the implementation of the Directive

No new central institution will be set up for the implementation of the law on geological storage of CO₂ in Romania. The key authority will be the National Agency for Mineral Resources (NAMR), an existing entity which will be empowered with new powers to implement the framework law on geological storage of CO₂. NAMR is an entity of the central public administration, under the subordination of the Government, and is in charge of implementation

of the mineral law and petrol law in Romania.²⁰ The Reasoning document of GEO 64/2011 acknowledges that geological capture of CO₂ is a new activity, but considering the similarities and experience in regulating geological storage of CO₂ and oil extraction activities NAMR is designated as the main implementing authority, with the provisions that its powers will be enlarged.²¹

The Draft Reasoning document envisaged a more radical change, with the creation of new institutional structure within the NAMR together with the replacement of the current legislation on the functioning of the NAMR, including its structure and staff. However, the enacted law makes no mention of this, and instead envisages the establishment of a special structure without legal personality within the NAMR that will function with a budget approved by the NAMR.²² This means that the activity of this unit falls under the legal regime which establishes framework on the functioning of the NAMR (Government Decision 1419/2009). The NAMR will be in charge of issuing licenses for exploration of potential sites, and issuing storage licenses. It will share inspection responsibilities with the National Environmental Guard (NEG).

Other authorities involved in implementation include:

- (a) The National Regulatory Authority for Energy (NRAE)²³: issuing transport licences for CO₂;
- (b) The Ministry of Environment and Forest (MEF): reporting to the European Commission, according to the reporting obligations under Directive 2009/31;
- (c) The National Guard on Environment (NGE): monitoring of storage complexes;
- (d) National Agency for the Protection of the Environment (NAPE): approval of monitoring plans;
- (e) Ministry of Economy Trade and Business Environment (METBE): establishment of the support schemes for CCS technologies.

These authorities will not receive additional budgetary funds for the fulfilment of their competencies,²⁴ nor does the framework law GEO 64/2011 contain specific provisions on the coordination of the work of the competent authorities. This has to be settled separately.

In terms of balance of powers and weight of competencies of central public authorities in the institutional set-up, one can conclude that this mirrors the policy and public debate on the proposed GETICA project, which is almost completely focused around the economic effects of CCS. The public information available on the GETICA project does not emphasize its central role as a tool for realigning Romanian energy policy towards a less environmentally harmful direction, but stresses the demonstration project as a great industrial success, with the Ministry of Industry Trade and Business Environment leading its implementation. Assessment criteria and procedures which will be only clarified subsequently once GEO 64/2011 has entered into force and there is the risk that these rules will be established only during the GETICA

²⁰ Art 1 of the Regulation on Organisation and Functioning of the NAMR (available at www.namr.ro/documente/ROFfin.pdf). It does not belong to a specific ministry. It is directly coordinated by the General Secretary Office of the Government (Secretariatul General al Guvernului).

²¹ Reasoning Document GEO 64/2011 p 6.

²² Art 32, GEO 64/2011.

²³ The National Regulatory Authority for Energy is an independent public institution of national interest, under the direct coordination of the vice prime minister. This authority is financed from state budget, and its revenues are part of the state budget. These are generated from licensing tariffs, authorisations, testing, contributions from companies in the sector of energy, natural gas, or funding from international organisations.

²⁴ Reasoning Document GEO 64/2011 p 7.

implementation. This project will test the balance between pure environmental and economic values - it would have been better to have a fully workable legal framework in place well before the start of project implementation.

No regional and local authorities have played a role in the implementation of the Directive which has been centrally coordinated, and counties and cities do not have competencies in this field. GEO 64/2011 does not give to local authorities (local and county councils) any rights of consultation with the central public authorities concerning the implementation of the domestic legislation for capture and storage of CO₂. However, in case of environmental pollution and imminent risk to human health and safety they may take measures under other laws on environmental protection and under the common rules on local public administration. According to Article 20 of the Romanian legislation on liability for damage caused to the environment any natural and legal person (and this includes local authorities) affected or potentially affected by an environmental harm or considered to be harmed in his/her right and/or have their legitimate interest affected, is entitled to transmit to the local authority (county level national environment guard) any observation concerning the occurrence of a damage or a pending harm. They may ask this authority to take the necessary measures as well as any other authority with competence in environmental protection.

4.3 Pore space ownership onshore and offshore

GEO 64/2011 does not contain any rule on this issue and does not differentiate between onshore and offshore storage. These terms are even not mentioned in the text of the legislation. It simply mentions that works related to capture, transport and geological storage of CO₂ are to be considered works of national public interest.²⁵ There is no publicly available information on how the issue of pore space ownership was settled in case of the GETICA project. It is assumed that since the storage will take place within an area of 40 km around the project, ownership of pore space will belong to the entity which is the owner of that land. According to Romanian property law, the owner of the surface land also owns the land beneath the surface, including the pore space. Since the works are considered to be of national public interest this means that eventually affected private lands may be nationalized upon previous and reasonable compensation, according to the law on expropriations.²⁶

4.4 Long-term liability requirements

Long term liability is not dealt with in GEO 64/2011, which contains provisions on sanctions for non-compliance with its requirements. In the absence of specific liability rules, generally applicable rules on liability for harm caused to the environment and those on tort liability will apply. GEO 64/2011 only indicates that the Romanian implementing law of the EC Directive on environmental liability (Government Emergency Ordinance 68/2007) will be amended. According to the new Article 3 of GEO 68/2007, imminent threat of damage to the environment will be also punished.

The operation of CO₂ storage sites belongs to the list of activities for which liability is strict (no-fault based). The Romanian law on liability for damage caused to the environment uses the term of objective liability as used in general tort law, but this does not imply absolute liability, with no possibility of exoneration. Two grounds of exoneration are provided:

- (a) where the operator proves that the harm was caused by a third party and it would have occurred even under adequate safety measures; or the damage is the consequence of compliance with mandatory orders or instructions issued by a public authority other than an order or instructions issued as result of an emission or incident harmful to the environment and caused by the operator's activities;

²⁵ GEO 64/2011 Art 31(2).

²⁶ Law no 33 of 27 May on expropriations for public utility.

- (b) the operator proves that it did not act with intention or fault and that the environmental harm was caused by an emission or an event specially authorized and in 'full compliance with the conditions set in the authorisation in force at the moment of the emission or event', or when the operator proves that the harm was caused by an emission or activity or use of a good for which could not be established at the moment of the emission or the activity upon the current state of technical and scientific knowledge (state of art defence).

However, the newly introduced section 12 in Annex 3 of GEO 68/2007 specifies that these rules do not prevent the application of the special legislation on geological storage of CO₂. For other issues than those specifically mentioned in GEO 68/2007, the general provisions of tort law will apply. Article 3(3) of the latter law states that more stringent special laws may apply for activities falling under the material field of application of the law on environmental liability, while Article 3(4) entitles any natural and legal person being governed by public or private law to civil law compensation in case of environmental harm suffered or of an imminent threat of such harm.

In this context mention should be also made of the new Romanian Civil Code, enacted in 2009²⁷ and which entered into force on 1 October 2011.²⁸ This contains a new general regime of tort liability, but does not contain specific rules on damage caused to the environment. Thus, civil law compensation for such harms continues to fall under the common provisions on damages with fault based liability remaining the main rule. Romanian tort law does not provide for the reversal of burden of proof or the presumption of fault in case of fault-based liability. The new liability regime is a hybrid of several legal regimes, and was heavily influenced by the Civil Code of the Province of Quebec; however, Romanian courts seem to continue with the principles developed for general tort liability under the influence of the French doctrine and case law, as shown by the few journal articles published so far on the new Civil Code.

4.5 Transfer of responsibility

The relevant provisions are to be found in Art 19(2) of GEO 64/2011. Transfer of responsibilities may be carried out by the initiative of the NAMR or on request by the operator. It is open to the NAMR to allow transfer before 20 years, if the relevant conditions are met, though the level of scientific evidence required is not specified in the GEO. The concept of 'all available evidence' and the conditions for transfer of responsibilities are the same as in Directive 2009/31, and no additional criteria are added to the list of the Directive on the content of the Report to be produced on the transfer of the responsibilities. GEO 64/2011 does not contain any additional procedures.

The same forms of fault are enlisted in the Romanian law as in Article 18 of Directive 2009/31. This is an indicative list (the law used the wording 'including :[...]'). No mention is made of other types of responsibilities and no consideration is given in the GEO to the escalating price of the CO₂.

4.6 Financial security

Article 20 of GEO imports the wording of Article 19 of Directive 2009/31, but is ambiguous because it does not state clearly whether the operator must prove financial suitability and have the financial security or any other equivalent measure in place at the time of application for a storage permit. Article 20(1) states that 'the National Agency of Mineral Resources ensures that the operator presents while applying for a storage authorisation the evidence that *may* constitute adequate financial resources in form of a financial security or of any other equivalent measures'. The rules on financial guarantees or other equivalent measures will be elaborated by NAMR and the central public authority for public finances within 12 months after the framework law has entered into force.

²⁷ Law no 287/2009 on the civil code.

²⁸ Law no 71/2009 on the implementation of Law no 287/2009.

4.7 Financial contribution for long-term stewardship

According to Article 21 of GEO 64/2011, the operator is obliged to provide the NAMR with the financial contribution before the transfer of responsibilities, by depositing that amount into a special bank account. This financial contribution will be established upon the criteria contained in Annex 1 and those resulting from the storage history, relevant for determining the obligations related to the post-transfer period. The financial contribution must cover at least the anticipated costs of monitoring for 30 years. It can be used to cover the costs incurred by the NAMR after the transfer of responsibilities in order to ensure that the CO₂ is completely and permanently stored in the geological sites after the transfer of responsibilities. For the tasks related to the financial contribution after the transfer of responsibilities, the NAMR will establish an 'activity fully carried out from own resource', according to the conditions of the law. The latter provision suggests that no budgetary funds will be allocated for this purpose and that the amount of the financial contribution must therefore be set at a high level.

4.8 Conflicting uses of storage sites

The prohibition of conflicting use of the storage sites covers all stages (starting with the initiation of operation and continuing with the implementation of geological storage of CO₂), except the period after the transfer of responsibilities.

Article 6(10) and Article 11 of GEO 64/2011 stipulate that the holder of the exploration permit has the exclusive right to explore the potential storage complex. As long as the exploration permits is in force, no conflicting uses of the storage complex that may affect the exploration activity are allowed. In addition to this, Annex 1 of GEO 64/2011 on the characterisation and assessment of the potential storage complexes and of the surrounding area requires detailed information on the activities in the surrounding areas of the storage complex and on the 'possible interactions' of these activities, for example, exploitation, production and storage of hydrocarbons, geothermal use of aquifers and the use of underground water reserves. There are similar prohibitions on conflicting uses of the storage site during the period of authorization (processing of the application for a permit), according to Article 7 (9).

For a specific storage site only one storage permit can be issued for a single operator and conflicting uses of the site that may affect the storage activity are not allowed (Article 7 (5)).

A further important provision worth mentioning is Article 27(3) of GEO 64/2011. Other central public authorities with competencies in the implementation of development strategies, responsible for regulating activities that may affect or be affected by the geological storage of CO₂ are obliged to consider the information available in registries kept at the NAMR.

Two types of register are to be kept at the NAMR: one on the storage permits granted, and another permanent register that contains information on all closed sites and the surrounding complexes, including maps and sections of the spatial area of these sites and the information available in order to assess whether the CO₂ is fully and permanently stored. This information is available to the central public authority for the protection of the environment (the Ministry of Environment and Forest) for the purposes of reporting to the European Commission.

However, GEO 64/2011 does not define the concept of conflicting use during operation of the storage site and transport, although the issue of conflicting use of storage sites is of major importance, as the GETICA project demonstrates. In that case three companies are involved in setting up the project company and these are active in other fields other than that of geological storage of CO₂. The storage operator for GETICA will be the national gas company, the ROMGAS, which has many other activities besides the storage of CO₂. The same is true for TRANSGAS, which will be in charge of transport of CO₂. Definitive information on how issues of conflicting use are resolved in the case of the GETICA project may only become available when the bid to the European Commission is published. In this context it is worth noting that Article 12 of GEO 64/2011 requires the authorised operator inform the NAMR about any change in the envisaged operation of the storage site, including those concerning the company itself.

5. Public engagement

Regarding public consultation, Section 7 of the Reasoning document states that during the elaboration of the Draft of GEO 64/2011 the provisions of Law 52/2003 on decisional transparency in public administration were complied with, and that the text of the Draft was open to public comment on the website of the Ministry of Environment and Forest.

Section 6 of the same Reasoning document, however, states that no specific consultation with non-governmental organisations, research institutes, and other organisations concerned including local public administrations was carried out. According to Government Decision 521/2005 consultation with local public authorities takes place only when the subject matter of the draft legal act falls within a field of activity of these authorities. Thus this legal act is more about the rules of involvement and coordination among the central and local public authorities in policy framing rather than about effective public consultation with the population or within a specific locality, or specific interest groups affected directly or indirectly by the proposed project that may have effects on the environment, human health and safety. No public information on the website of the central public authorities empowered with the implementation of Directive 2009/31 is available on the comments and position of non-government authorities on this matter and no detailed public information can be reported on the attitude of the population towards the GETICA projects or the geological storage of CO₂. It is even more surprising that the implementation of Directive 2009/31 or the GETICA project has not been the focus of attention of Romanian NGOs active in the field of environmental protection. A non-profit association, the ClubCO₂, was established in 2007 to promote information about carbon capture and storage, and involved in the development of the project documentation. The National Research and Development Institute for Geology and Maritime Geo-ecology (Geo-EcoMar) and the Institute for Energetic Studies and Project (ISPE) are among the members of this association.

There is no dedicated public body in place in Romania in charge of dealing with public engagement with respect to CCS project. The sole main rule on public consultation related to geological storage of CO₂ is to be found in Article 30 of GEO 64/2011 which obliges NAMR and the central authority for the protection of the environment to make open to the public ('to put at the disposal of the public') information on the geological storage of CO₂, according to the provisions of Government Decision 878/2005 on public access to information about the environment.

6. Integration with existing environmental law generally

The enforcement of GEO 64/2011 by 30 July 2011 may be difficult given the absence of implementing rules which are to be issued at a later date. As long as these rules remain absent, it is hard to judge the extent to which other areas of environmental, energy, company and public administration law can act as an effective substitute, given the specific regulatory needs of the geological capture of CO₂. It seems, though, that the Romanian authorities in charge of developing the implementing law did not consider that the geological storage of CO₂ gives rise to issues that required the developed of detailed, specific rules (for example special rules on public participation).

As mentioned above, the Romanian transposition of Directive 2009/31 cannot yet be considered effective transposition, but is really only a formal transplant with minimal institutional set up. The GETICA project will test in practice the quality of the transposition. Until secondary legislation is issued, the success or failure of implementation depends on the interaction of the framework law with the general rules of other legal fields. GEO 64/2011 does contain a list of laws, mainly environmental laws, which must be amended in order to suitably complement the legal regime on geological storage of CO₂. These are mentioned in Section 5 of this report. However, no amendments are envisaged to other non-environmental legislation, and in order to understand

properly the nature of implementation, it is necessary to take into consideration the general legal framework in Romania.

7. Discretionary and ambiguous provisions in Directive 2009/31

7.1 Field of application

GEO 64/2011 is in full compliance with Article 2(2) of Directive 2009/31. It will be not applied to geological storage of CO₂ with total intended storage below 100 kilo-tonnes undertaken for research, development or testing of new products and processes. Section 1 of the Reasoning document specifies that GEO 64/2011 applies only to the geological storage of CO₂ and that capture and transport of CO₂ are governed by GEO 125/2005 on integrated prevention and control of pollution and by Government Decision 445/2009 on environmental impact assessment of specific private and public projects. According to Article 3(2) of GEO 64/2011, the storage of CO₂ in water column is not allowed.

7.2 Selection of the storage site

Article 5 of GEO 64/2011 imports the wording of Article 4 of the Directive and appoints the National Agency for Mineral Resources (NAMR) to establish on the territory of Romania the areas where storage sites may be appointed, to assess the capacity of the available areas and to authorise exploitation of these sites. The areas where selected sites may be will be available on the website of the NAMR. Annex 1 details the criteria of description and assessment of the potential storage complex and surrounding environment, but no mention is made of the criteria of selection of the areas where sites may be designated for storage of CO₂. The concept of storage complex is defined in Article 4 as a lithostratigraphic subdivision within which may be also found the cartography of the specific (distinct) levels of rock.

7.3 Exploration permit

The wording of Article 6(1) only mentions that the NAMR may decide on the exploration of a site if it considers that this may be necessary in order to obtain the information for site selection and for the selection of the storage capacity. The procedures for exploration will be elaborated subsequently by the NAMR and approved through a Government Decision following the opinion of the central public authority for the protection of the environment.

A 90 day deadline from the entry into force of GEO 64/2011 is set up for the issuance of these rules. Exploration authorisations fall within the competence of the NAMR. GEO 64/2011 does not define the criteria to be applied for authorisations. It only states that these should be objective, accessible to the public and non-discriminatory. This wording slightly differs from that of the Directive, which demands that such criteria to be 'published'.

Exploration permits will be issued for a surface corresponding to an area of limited volume (Article 6(8)), though such a provision is not found in the text of the Directive. Where necessary, the authorisation may also contain provisions on the monitoring of the injection tests. However, the concept of 'where necessary' is not defined, and this will be established on a case by case basis. Supposedly as part of the information to be submitted by the applicants, the concept of necessary capacities and the criteria will be developed within the procedures on exploration of the potential sites. Conflicting use of the storage complex is forbidden, but nowhere does the law define what kind of activities would fall under this prohibition.

7.4 Application for storage permit

The framework rules on applications for storage permit are established in Articles 7 and 8 of GEO 64/2011. The competent authority for issuing the storage permit is the NAMR, which will elaborate the procedures on storage authorisation within 180 days from the date that GEO 64/2011 entered into force (i.e. before end of January 2012). However, these procedures will

need the approval of the Ministry of Environment and Forest as well. GEO 64/2011 therefore establishes only the principles with which the future procedures must comply: (a) open access to operation permitting of any operator that has the necessary capacity for this, and (b) objective, public and transparent criteria for permitting.

However, GEO 64/2011 contains an additional rule (not found in Directive 2009/31), which states that priority may be given to those operators which possess an exploration authorisation of the potential storage complex, subject to the exploration being finalised and the application for storage authorisation being submitted during the period of validity of the exploration authorisation. No conflicting use of the storage sites is allowed during the period of the pending permit.

Article 8 establishes minimum requirements for the content of the application:

- identification data of the operator,
- proof of its technical potential,
- description of the potential storage complex as well as an assessment of the estimated security of the envisaged storage,
- the total quantity of CO₂ to be injected, resources and of transport methods,
- composition of CO₂ streams, amount and pressure of injection,
- measures for prevention of significant irregularities,
- proposal for monitoring plan, proposal for corrective measures,
- proposal of the preliminary plan for the post-closure phase,
- the document issued according to Government Decision 445/2009 on environmental impact assessment of specific private and public projects and the proof of compliance with the conditions imposed upon the operator, the proof that the financial guarantee or another equivalent measure is valid and effective before the starting of injections.

The approval from the water management authority for the works that are the subject matter of the authorisation is an additional requirement imposed under the Romanian law.

The conditions for the issuance of the permit are governed by Article 8 of GEO 64/2011. The NAMR will issue the storage permit only if the application complies with all the requirements established in GEO 64/2011 and the legislation in force on the protection of the environment.²⁹ The operator must demonstrate it has a sound financial situation, is competent from technical point of view and is 'creditworthy' for operation and control of the storage site, and that it has undertaken the professional and technical training and development of the operator and of its full staff. The concept of creditworthiness requires further clarification from the competent authorities.

In the case where there are more storage sites within the same hydraulic unit, the permit will be issued only if the possible interactions of their pressures allow for simultaneous compliance by all sites with the requirements of GEO 64/2011.

When issuing the storage permits, the NAMR will take into consideration the approval of the European Commission on the permit proposal.

7.5 Content of storage permit

Article 10 of GEO 64/2011 follows the provisions of Article 9 of Directive 2009/31. The NAMR is the competent authority to be notified by the operator in the event of leakage or significant irregularities, while the monitoring plan must be approved by the National Agency for Environmental Protection (NAEP). Unlike the draft version of GEO 64/2011 the law as enacted

²⁹ The draft version of GEO 64/2011 went further by requiring that the application complied with all legislation in force, not just environmental legislation.

has a narrower and less effective approach, because it no longer requires the operator to notify the NAEP and the National Administration 'Romanian Waters' as well.

Article 11 provides that the NAMR makes the permit application available to the European Commission within 30 days from after receipt and informs the European Commission about the permit proposals and any other documents taken into account for decision-making. The Commission's opinion will be non-binding, as there is no deadline within which the Commission may issue the opinion.

7.6 Review and withdrawal of storage permit

Rules on review and withdrawal of the permit are contained in Article 12 of GEO 64/2011. The operator must inform the NAMR about any planned change in operation of the storage site, including changes concerning the operator itself, and this information will provide the basis for NAMR to amend the permit or the conditions of operation. No substantial change may be implemented in the absence of a new permit or amended permit. The provisions of Article 13 of Government Decision 445/2009 on environmental impact assessment of specific private and public projects will apply in these cases.

Until the issuance of a new storage permit the NAMR will take over temporarily all legal obligations: taking delivery if injection of CO₂ continues, monitoring and corrective measures, return of greenhouse gas certificates in the case of leakage (Government Decision 780/2006), preventive measures and remedial measures according to Government Emergency Ordinance 68/2006 on environmental liability and compensation for damage. The costs of such measures will be covered by the NAMR from the operator concerned, including from the financial guarantee.

7.7 CO₂ stream acceptance and procedures

Article 13 of GEO 64/2011 prohibits the addition of waste or other materials to the CO₂ stream. However a CO₂ stream may incidentally contain other materials, from the capture or injection process as well as monitoring substances added to the CO₂ in order to facilitate monitoring and assess the migration of the CO₂. In such cases the level of concentration of these substances must be below the level that may negatively affect the integrity of the storage site or the transport infrastructure, and may not present risk for the environment or human health or infringe legislation on the protection of the environment and human health.

The NAMR will assure that the operator receives and injects the CO₂ only if the content of the CO₂ stream including any corrosive substances was assessed to ensure any impurities are in accordance with the requirements of Article 13. The operator shall keep a register of the quantities and properties of the CO₂ stream supplied and injected, including the composition of the respective streams.

7.8 Monitoring

Rules on monitoring obligations are inserted in Article 13, where those on the monitoring plan are to be found in Article 14.

The obligations of the operator include: (a) the monitoring of the injection equipment, of the storage complex, including 'where necessary and possible' the monitoring of CO₂ dysfunctions and the monitoring of the environment, in order to compare the behaviour of the CO₂ and of the water within the site, (b) detection of significant irregularities, migration of the CO₂, leakages, negative impacts on the environment, including particularly those on drinking water and on the population or on the users of the surrounding biosphere, and (c) detection of any corrective measures to actualize the safety assessment and the integrity of the site in the long and short term, including the assessment of the extent to which the CO₂ is stored fully and permanently.

The operator must prepare and submit to the NAMR a monitoring plan for approval according to the requirements of Annex 2 of GEO 64/2011 and of the monitoring and reporting guidance of

the European Community on greenhouse gas emissions. This monitoring plan must be updated every five years taking into account possible changes in the leakage risk assessment and environmental risk assessment and those related to human health and new findings of science and developments in technology. The updated plans are subject of approval by the NAMR.

7.9 Reporting by the operator

According to Article 15 GEO 64/2011 the operator must report to the NAMR once a year: all monitoring results from the reporting period, including information on the monitoring technology employed; proof on the creation and continuous existence of the financial guarantee; the quantities and properties of the CO₂ streams supplied and injected during the reporting period; any other information considered by the NAMR to be relevant for the assessment of compliance by the operator with the conditions set up in the storage permit and for increased knowledge of how the CO₂ behaves within the storage site.

7.10 Inspections

Inspection powers and duties are shared between the NAMR and the National Environmental Guard (NEG) under Article 16 of GEO 64/20011. Two types of visits are envisaged: planned and non-routine inspections.

Routine inspections will be undertaken by the NEG, which will set up a system of planned inspections at all storage complexes in order to assess compliance with the legislation on storage of CO₂ and for monitoring of the effects of CO₂ on the environment and human health.

A Protocol governing cooperation with other inspection authorities will be concluded within 180 days after GEO 64/2011 has entered into force. Inspections can be made in form of site visits on the ground, including the injection equipment, assessment of injection works and monitoring undertaken by the operator and verification of the books held by the operator. Such inspection should take place once a year during the operational period and during the first three years upon closure, and subsequently every five years, until the transfer of responsibilities to the NAMR. During these inspections the effects of the injection equipments and those of monitoring on the environment and human health will also be assessed.

Non-routine inspections may be carried on in specific cases by the NAMR, which may act: upon being notified or informed about leakages or significant irregularities, according to Article 17; when reports submitted by the operator conclude non-compliance with the conditions of authorisation; upon significant complaints concerning environmental problems or those related to human health; as well as in any other situation when it considers that is necessary to undertake an inspection.

Each inspection undertaken by the National Environmental Guard (NEG) must be completed with a report about the findings, which assesses the conformity of the storage activity with the requirements resulting from GEO 64/2011 and indicates whether additional measures are necessary. This report will be forwarded to the operator concerned and submitted to the NAMR within 60 days from the time of investigation. No equivalent obligation of sending information to the NEG is required of NAMR.

7.11 Measures in case of leakage or significant irregularities

Rules on measures to be taken in case of leakage are found in Article 17 of GEO 64/2011. The operator must notify NAMR immediately and take the necessary corrective measures in case of leakage or significant irregularities, including those for the protection of human health. If this occurs, including the risk of leakage, the operator must notify the competent authorities in conformity with the requirements of Government Decision 780/2006 (with subsequent amendments), which governs the trading regime of greenhouse gas emission certificates. The measures to be taken by the operator will be a minimum set of actions identified on the basis of a corrective action plan submitted to and approved by NAMR and Ministry of Environment and Forest. The NAMR may at any time require the operator to take corrective measures, including

measures for the protection of human health. These measures may be complementary to or different from those envisaged in the approved action plan on corrective measures. If the operator refuses to take the corrective measures, these will be undertaken by the NAMR, which can take measures on its own at any time. The costs of such measures will be met by the operator including the use of the financial guarantee. It is worth noting that NAMR, rather than the Ministry of the Environment and Forest, is empowered to take the corrective measures.

No right of appeal of the operator is mentioned in the GEO if he does not agree with the measures proposed by the NAMR.

7.12 Closure and post-closure obligations

The conditions of closure are regulated in Article 17 GEO 64/2011, and closure of the storage site may take place in the following cases:

- (a) the term of the permit comes to an end
- (b) upon the justified request of the operator, subject to approval by the NAMR
- (c) the NAMR may also withdraw the permit as a last instance solutions i) when it is notified or has knowledge of the existence of certain leakages or other significant irregularities, ii) where the reports submitted by the operator or the environmental inspections indicate that permit conditions are not complied with or there is the risk of leakage or significant irregularities iii) any other situation of non compliance of the operator with the conditions of authorization, iv) where it is necessary on the basis of latest findings of science and technology or, v) upon 5 years from the date of issuance of the authorisation and after that period at each 10 years. These cases of closure are to be found in Article 12.

The operator will have the following post-closure obligations until the transfer of responsibilities: monitoring, reporting and corrective measures; all burdens related to the restitution of greenhouse emission certificates in case of leakage of CO₂ according to the provisions of Government Decision 780/2006 on trading of greenhouse emission certificates; preventive and reparatory measures established in Government Decision 780/2006; hermetic closure of the storage site and evacuation of the injection installations in safety conditions and according to a post-closure plan prepared by the operator based on the best available practices and those provided in Annex 2.

The operator has to submit a provisional post-closure plan at the moment of application for the storage authorisation. This provisional post-closure plan must be realised if necessary according to the best practices and technological improvements and submitted to the NAMR for approval.

7.13 Access to transport networks and storage sites

Article 22 of GEO 64/2011 mirrors Article 21 of the Directive. The designated implementing authorities of this provision are the National Regulatory Authority for Energy (NRAE) and the NAMR, and they will develop the requirements for obtaining the transport licence, to be issued by the NRAE. The procedures on transparent and non-discriminatory access of operators to the transport networks and to storage sites will be drafted within nine months upon the entering into force of the framework law. These will be enacted by the presidents of NRAE and NAMR. They will have the power to monitor the fulfilment of the conditions taken into account while applying the objectives of fair and open access. Romanian law does not define what is to be understood under 'lack of capacity' as ground for refusal to issue the licence, and without further clarification, the requirement that refusal must be reasoned and justified remain empty words. However, while para 6 uses the general concept 'lack of capacity' as in the Directive, para 7 which corresponds to Article 21(4) from the Directive, refers to the 'lack of technical capacity'.

The rest of the wording of this provision is similar to that of the Directive. Duly substantiated reasons are not defined.

7.14 Dispute settlement

Art 23 of the GEO appoints the territorially competent courts from the area of the transport network or the storage site as competent authorities for disputes concerning access to transport networks and storage sites.

The law on administrative litigation applies for such disputes.³⁰ However, it is questionable how the territorial courts will handle such cases expeditiously, Romanian courts being known for high work overload. Besides this they will have to apply a law that is very technical and weakly elaborated.

In case of transboundary litigation the legal regime of that Member State applies, which has the jurisdiction over the transport network or over the storage site to which the access was denied. Where the transport network or storage site falls under the jurisdiction of more than one Member States, the Member States concerned will cooperate in order to apply the Community rules on geological storage of CO₂ in a uniform way. Although this provision was meant to be a rule of private international law, it is rather confusing in wording, because it only invites the concerned parties to cooperate. It is not a typical conflict rule.

7.15 Transboundary cooperation

The draft version GEO established in Article 31 the competent authorities in the case of transboundary transport of CO₂ and transboundary storage sites or storage complexes (these being the National Regulatory Authority for Energy and the NAMR), but GEO 64/2011 does not have any similar provisions. It is silent on transboundary cooperation.

8. Conclusions and general remarks on the Romanian transposition strategy of Directive 2009/31

Romania opted for geological storage of CO₂ on its territory and has submitted applications for EU funding of the Romanian demonstration. In addition to the formal transposition requirements, it is therefore justifiable to assess the quality of the transposition applying further criteria:

- a) how operative are the rules in assisting the launch of the demonstration projects according to the proposed roadmap (including legal certainty and transparency for the potential operators) and
- b) how effective are the guarantees offered for the protection of environment, human life and safety.

As to the first criteria, GEO 64/2011 can be considered weak in providing effective rules for actually starting up activities on geological storage. Procedures on permitting and incentive mechanisms are still to come and the main implementing authority does not have in place yet any special institutional rules on its structure and staff. Delays in the adoption of the procedures of authorisation and the provisions on incentives may delay the starting up of CCS demonstration project. On the other hand, the rules on operation, reporting, monitoring and inspections have been sufficiently elaborated.

In terms of guarantees offered by GEO 64/2011 for the protection of the environment and human safety and health, the following conclusions can be made:

³⁰ Law 554/2004 on administrative litigation.

- (a) The main rules which serve this purpose are to be found in related environmental legislation such as on environmental liability, environmental impact assessment of specific private and public projects and that on trading of greenhouse gas emission certificates. Rather than any special rules for CO₂ capture, transport and storage, it is the procedures and requirements of these laws that will complement the general legal framework set up by GEO 64/2011.
- (b) The approach of GEO in this respect is preventive rather than corrective. The operator has to comply with the environmental law in the application for a permit and monitor and report the effects of operation on the environment and human health.
- (c) The National Environmental Guard (NEG) is in charge of routine investigation, whereas the NAMR will take any necessary measures. It is NAMR rather than the Ministry of Environment and Forests that has the power to impose and/or take measures in case of leakage and significant irregularities. The division of responsibilities between the National Environmental Guard and the NAMR is an unusual institutional arrangement and may affect the effectiveness of intervention in the case of a harm caused to the environment or human health.

Last but not least it must be remembered that the main aim of Directive 2009/31 is the mitigation of climate change. Therefore, the Reasoning document states under the heading 'environmental impact assessment' that Romania will implement the guidance documents elaborated by the European Commission on risk assessment of the composition of the CO₂ stream, financial security, monitoring of the storage sites, selection and characterisation of the sites, transfer of responsibilities of the operator to the competent authority (Section 3 of the Reasoning).

Public information and public participation in matters related to the potential risks of the geological storage of CO₂ is unsatisfactorily dealt with in Section 7 of the Reasoning document under the heading 'Information of the civil society on the potential impact on the environment of the draft law, its effects on health and safety of the citizens and on biodiversity'. The commentary at this section states that this obligation is considered fulfilled by the 'information of the civil society through the publication of the draft law on the website of the Ministry of Environment and Forest'. It should be emphasized that neither the Reasoning document nor GEO 64/2011 contains information on the potential risks associated with the geological storage of CO₂, or on assessment of such risks in the concerned areas (GETICA). Given that, the statement in the Reasoning document that the publication of the text of the draft adequately deals with information on the potential impact of the geological storage of CO₂ on the environment and human health is a sign of ignorance of these potential effects. One should add that in Romania there is no independent public authority in place with the competence to inform the public on this matter. The private association ClubCO₂ was set up to promote the geological storage of CO₂ in Romania and only has on its website basic data on the types of risks associated in general with the geological storage of CO₂. The limited information that is publicly available on the GETICA demonstration project does not address issues of environmental impact assessment or risk assessment related to safety and human health.