## Portugal's new Legal Regime on the Geological Storage of Carbon Dioxide - Vieira de Almeida

TUESDAY, 26 JUNE 2012 10:04





Directive 2009/31/EC was recently enacted into Portuguese law by Decree-Law nr. 60/2012, of March 14th, 2012, which established the legal regime on the geological storage of carbon dioxide (CO2) and entered into force on March 15th, 2012.

According to Directive 2009/31/EC on the geological storage of carbon dioxide, "carbon dioxide capture and geological storage (CCS) is a bridging technology that will contribute to mitigating climate change". This consists of "the capture of carbon dioxide from industrial installations, its transport to a storage site and its injection into a suitable underground geological formation for the purposes of permanent storage".

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The geological storage of CO2 can take place within the whole of the Portuguese territory, the exclusive economic zone and the continental shelf, as defined in the United Nations Convention on the Law of the Sea, of December 10th, 1982.

Any interested party may file a request with the Directorate-General for Energy and Geology (DGEG) – competent authority for the geological storage of CO2 – for the issue of an exploration permit (licença de pesquisa) and the award of a CO2 storage concession (concessão de armazenamento).

The exploration permit shall enable the assessment of potential storage complexes for the purposes of geologically storing CO2 and can be issued for a maximum term of five years, that may be extended for an additional period of three years, if the initial validity term is insufficient to determine the suitability of the geological formation (and surrounding area) that is being prospected.

Once it has been concluded that the geological formation is suitable for the storage of CO2, the holder of the exploration permit is entitled to request the award of a storage concession, and will be given priority in relation to the award.

Both the exploration permit and the storage concession can also be granted/awarded by means of a public tender.

In order to carry out the activity of CO2 storage, it is also necessary to request a permit regarding the associated surface and injection facilities (licença de estabelecimento do anexo de armazenamento) from the competent authority.

Furthermore, operators must provide financial security as a guarantee of compliance with the obligations foreseen in the new legal regime.

Once all permits have been obtained and the financial guarantee has been provided, the operator may begin the CO2 storage activity.

As regards operators of combustion plants with a rated electrical output of 300 megawatts or more for which the original construction licence or, in the absence of such a procedure, the original operating licence was granted after June 25th, 2009, they must ensure that suitable storage sites are available, transport facilities are technically and economically feasible, and it is technically and economically feasible to retrofit for CO2 capture. If these conditions are met, the competent authority shall ensure that these operators have suitable space on the installation site for the equipment necessary to capture and compress CO2.

Any entity with industrial processes capable of using CCS technology is entitled to obtain access to transport networks and to existing storage sites, in a transparent and non-discriminatory manner.

Due to the fact that this new legal framework has only been in force for two months, it is still too soon to assess how potential operators will respond to geological storage of CO2, including large combustion plant operators.

Nonetheless, considering that from 2013 onwards the environmentally safe capture, transport and geological storage of CO2 will be included in EU Emissions Trading System, which will recognise CO2 captured, transported and safely stored as not having been emitted, it will be interesting to see whether this new activity will in fact deploy and allow for a reduction of Portugal's overall CO2 emissions, considering it is dependent on the carbon price and the price of technology.

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