



**Report by the Republic of Slovenia on the implementation of the Directive
2009/31/EC on the geological storage of carbon dioxide pursuant to the Article
27(1) thereof**

April 2023

Report of the Republic of Slovenia on Implementation of Directive 2009/31/EC on the geological storage of carbon dioxide ("CCS Directive")

OUTLINE1

Changes, reviews and updates of national implementation legislation

1. Are there any changes to national legislation, permitting system or competent authorities that have taken place since the last report on implementation of the CCS Directive in your country?

No, geological storage of carbon dioxide is still prohibited in the territory of the Republic of Slovenia and its continental shelf under Article 258 of the Environmental Protection Act.¹ Furthermore, under Article 6 of the Mining Act,² it is not possible to obtain exploration permits and mining rights for the exploitation of hydrocarbons by hydraulic fracturing or for the purpose of injecting and storing carbon dioxide.

2. Are there processes in place for storage permit applicants to engage pro-actively with the competent permitting authorities regarding relevant applications? If yes, please provide details.

There are no processes in place for storage permit applicants to engage pro-actively with the competent permitting authorities regarding relevant applications.

3. Please provide the name, email address and telephone of the contact point at the competent authority responsible for fulfilling the duties established under the Directive.

Ana Klemen, Ministry of the Environment, Climate and Energy, ana.klemen@gov.si, 00386 1 478 7614.

4. Are there any issues that the competent authority would like to discuss with other competent authorities in relation to the practical implementation of the Directive and in particular the national permitting procedures in the Information Exchange Group under the auspices of Article 27(2)?

No.

Selection of areas for storage sites (Article 4)

5. Which areas are determined from which storage sites may be selected pursuant to Article 4(1) until April 2023?

As mentioned, the geological storage of carbon dioxide is prohibited in the whole territory of the Republic of Slovenia and its continental shelf.

6. Will additional areas be determined from which storage sites may be selected in the period until the next report at the end of 2027, if so, which geological type of areas are considered (e.g, saline aquifers, depleted or not depleted gas & oil fields, mafic rocks) from a geological point of view and what are the next steps?

Currently, there aren't any definite plans in place in Slovenia to determine additional areas from which storage sites may be selected in the period until the next report at the end of 2027. However, potentials are currently being explored for the implementation of a carbon dioxide capture and storage pilot project, which would capture one third of the CO₂ emissions in cement production by 2030. The company planning this pilot project is exploring both national and transnational storage options.

¹ Environmental Protection Act (Official Gazette of the RS, No. 44/22 and 18/23 – ZDU-10). URL: <http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO8286>

² Mining Act (Official Gazette of the RS, No. 14/14 – official consolidated text, 61/17 – GZ and 54/22). URL: <http://pisrs.si/Pis.web/pregledPredpisa?id=ZAKO5706>

7. Are there information about environmental and/or health risks relating to the geological storage of CO2 in accordance with the applicable Community legislation available to the public?

In Slovenia, there isn't any information about environmental and/or health risks relating to the geological storage of CO2 available, since such risks do not exist due to the prohibition of geological storage in Slovenia.

Exploration permits (Article 5)

8. Are there areas or specific sites where no exploration permits are required to generate the information necessary for the selection of storage sites, pursuant to Article 5?

Not applicable.

9. How many exploration permits have been given pursuant to Article 5 since your last reporting?

No exploration permits have been given pursuant to Article 5 since our last reporting.

Storage permits applications (Article 10)

10. Member States shall make the permit applications available to the Commission within one month after receipt. Are there any plans of potential operators to apply for storage permits pursuant to Article 7? If yes, please provide an approximate timing.

Since geological storage of CO2 is prohibited in the territory of Slovenia, operators cannot apply for storage permits pursuant to Article 7.

Third-party fair and open access (Article 21)

11. What measures – if any – have been taken to ensure that potential users are able to obtain fair and open access to transport networks and to storage sites for the purposes of geological storage of the produced and captured CO2 (Article 21)?

Article 21 of the CCS directive is transposed into Slovenian legislation through Articles 486–488 of the Energy Act.³ Article 486 states that before carrying out the transfer or processing of carbon dioxide for transport, the company reports its activity to the Energy Agency. Furthermore, according to the Article 487, in the event of a dispute regarding access to the network, the Agency is in charge of solving it, taking into account the number of interested transport customers. In doing so, it may request all information from the parties that is absolutely necessary to resolve the dispute. In case of cross-border disputes regarding access to the carbon dioxide network, the Agency cooperates with competent authorities in other countries.

No further measures have been taken to ensure that potential users are able to obtain fair and open access to transport networks and to storage sites for the purposes of geological storage of the produced and captured CO2.

12. Are you aware that prospective transport operators and/or storage operators have refused access to their facilities on the grounds of lack of capacity?

No, we are not aware of such cases.

13. What measures – if any – have been taken to ensure that the operator refusing access on the grounds of lack of capacity or a lack of connection makes any necessary enhancements as far as it is economic to do so or when a potential customer is willing to pay for them? (Article 21)

³ Energy Act (Official Gazette of the RS, No. 60/19 – official consolidated text, 65/20, 158/20 – ZURE, 121/21 – ZSROVE, 172/21 – ZOEE, 204/21 – ZOP in 44/22 – ZOTDS). URL: <http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO6665>

We are in contact with installations that have a concentrated stream of CO₂ which could potentially be captured. Since no installation established a plan to engage in CCS activities that would require access to transport networks, no measures have been taken so far to ensure that the operator refusing access on the grounds of lack of capacity or a lack of connection makes any necessary enhancements.

Transboundary cooperation (Article 24)

14. Is there any experience or plans for transboundary CO₂ transport or CO₂ storage sites or storage complexes? Please provide details on the status of preparations, if any.

In Slovenia, there isn't any experience with transboundary CO₂ transport or CO₂ storage sites or storage complexes. As mentioned, the cement producing company that is planning the implementation of a carbon dioxide capture and storage pilot project is also exploring transnational storage options. However, this project is in very early stages of implementation.

CO₂ capture readiness (Article 33)

15. How many combustion plants with a rated electrical output of 300 MW or more have received a permit since the last implementation report? What was the outcome of the assessment under Article 36 of Directive 2010/75/EU4? In case of negative assessment, have the combustion plants set aside suitable space irrespectively? Please provide detail for each permit according to Annex 2.5.

No combustion plants with a rated electrical output of 300 MW or more have received a permit since the last implementation report.

Further questions

16. What other national programmes are in place or planned to support research, demonstration and deployment of CCS?

Article 183 of the Environmental Protection Act states that environmentally safe capture and geological storage of carbon dioxide, especially from solid fossil fuel power plants and a range of industrial sectors and parts of sectors, including in third countries, can receive funds from the Climate Change Fund. This fund is established under the Article 182 of the Environmental Protection Act and is financed by the revenues generated by the sale of emission allowances on auctions. However, so far no funds have been allocated for the purpose of CCS from the Climate Change Fund.

17. Are there any ongoing national or European research projects that may have relevance to the Directive?

No, there aren't any ongoing national or European research projects that may have relevance to the Directive.

18. Are there other plans to support further appraisal of CO₂ storage sites, to prepare for CO₂ transport infrastructure or for CO₂ hubs and clusters?

In Slovenia, there are currently no plans to support further appraisal of CO₂ storage sites, to prepare for CO₂ transport infrastructure or for CO₂ hubs and clusters.