

Carbon Sequestration Leadership Forum Procedure for Applying for Membership

National governmental entities may apply for membership to the Carbon Sequestration Leadership Forum by sending a letter of application to the CSLF Secretariat. The letter of application should be signed by the responsible Minister from the applicant country. In their application letter, prospective Members should:

- Demonstrate they are a significant producer or user of fossil fuels that have the potential for carbon capture;
- Describe their existing national vision and/or plan regarding carbon capture and storage (CCS) technologies;
- Describe an existing national commitment to invest resources on RD&D activities in CCS technologies;
- Describe their commitment to engage the private sector in the development and deployment of CCS technologies; and
- Describe specific projects or activities proposed that will be undertaken within the frame of the CSLF.

The letter of application will be circulated to the Members of the CSLF Policy Group for consideration. The application will then go forward for a decision at the next scheduled meeting of the Policy Group.

Membership will be offered to national governmental entities that submit a successful application. The offer of membership can be accepted by signing the Charter in Counterpart at the Ministerial level and delivering it to the Secretariat.

Membership is confirmed upon receipt by the Secretariat of the signed Charter. Correspondence can be sent to:

CSLF Secretariat
U.S. Department of Energy
FE-26
1000 Independence Ave., S.W. Washington, D.C. 20585 U.S.A.
E-mail: CSLFSecretariat@hq.doe.gov



**MINISTRY OF ENERGY, SMALL AND MEDIUM ENTERPRISES AND
THE BUSINESS ENVIRONMENT**

MINISTER CABINET

October 20, 2015

Hr. 103985

CSLF Secretariat
U.S. Department of Energy
FE-27
1000 Independence Ave., S.W.
Washington, DC 20585
U.S.A.

Dear Honorable Secretary, Ernest MONIZ

I am writing to submit this letter as application for Romania's membership in the Carbon Sequestration Leadership Forum (CSLF). Romania's qualifications for membership will be highlighted below.

Romania is in an enviable position with regard to energy. Romania is the third most energy independent country in the European Union with a diversified and the most balanced energy mix in the Union. It is endowed with significant energy resources, including natural gas, oil and coal, renewables and uranium. **The country has a long standing production of coal and oil and gas, stretching back more than 150 years.** Romania's entire hard coal and lignite output is used for heat and power generation. However, most of the lignite fueled generation assets are nearing their decommissioning dates. Given lignite's role in ensuring the country's energy security through maintaining a diversified energy mix, the Romanian Government is actively exploring advanced fossil energy technologies that would allow for the efficient use of lignite in a manner that meets EU and national climate and environmental goals.

Furthermore, the lignite industry in Romania is concentrated in a single geographical area where economic growth is highly dependent on the long-term outlook for mining and lignite utilization. Thus, any technology that can allow for the continued use of lignite in a manner that meets social, economic, environmental, climate, and energy security goals is of paramount interest. As part of the national priorities for energy and climate change, carbon capture and storage (CCS) plays a key role in ensuring Romania's ability to maintain a balanced energy mix and create a competitive economy while it pursues ambitious decarbonization goals.

For Romania, CCS offers the potential to radically reduce CO2 emissions from large point sources such as coal- and gas-fired power plants and energy-intensive industrial facilities. CO2 emissions from fossil generation, representing 43% of total CO2 emissions in 2008, will need to be reduced for Romania to meet its climate obligations. The Romanian government used climate change goals as a mechanism for capacity building at an institutional level, proactively seeking EU funds for technology demonstrations. The National Reform Program 2011-2020 highlights CCS as a key area of research and development. The National Program for Carbon Capture and Storage seeks to develop the technology, reducing cost and paving the way for its implementation. Initiatives such as the "Action Plan to implement a Demonstration



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Project regarding Carbon Capture and Storage in Romania" have established the steps necessary to develop a CCS project in Romania, recruiting national and private bodies with the relevant skills.

Romania is rapidly becoming a regional leader in tackling climate change and looking into the future for appropriate technologies to achieve these goals. The deployment of CCS technologies in Romania can support local economic development, environmental and climate performance, and energy and national security, especially when the utilization of CO₂ is considered. Romania could benefit from multiple opportunities for CO₂ utilization, ranging from utilization in the oil and gas industry to utilization as feedstock for industrial processes resulting in value added products such as urea fertilizers or methanol, or for use in food processing. The multiple economic and energy security benefits Romania can enjoy from developing all or part of the value chain surrounding CCUS projects further serves to enhance its national and economic security.

Romania's ageing infrastructure will need to be rapidly replaced and sustained investments over the coming decades will be required to maintain capacity and meet demand growth. Building an energy and industrial system fit for purpose is rapidly becoming ever more difficult with the necessary integration of new technologies to mitigate climate change and other pollution control measures coupled with the need to maintain economic competitiveness and mitigate negative social impact of associated with this transformation. As such, the possibility to repower the Romanian energy system is a once in a generation opportunity and well-informed decisions now could place the energy sector and the economy at large on a secure footing to meet the demands of this century. Through participation in forums for international cooperation, such as the CSLF, Romania seeks to create a competitive economy, based on innovation and fueled by a world-leading generation system.

Romania has a history of first mover and innovator in energy. Romania is the first country in the world with a petroleum production officially registered in the international statistics in 1857, build the world's first large refinery at Ploiesti in 1856-1857, its capital became the world's first city publicly illuminated with kerosene in 1857, and in 1884 the streets of Timisoara became the first in Continental Europe to be illuminated by electricity. As the 21st century is shaped by the third industrial revolution, through international cooperation Romania seeks to transform the need to balance energy, economic, and climate goals into opportunities for innovation in technology, institutions, markets, and policies.

With this in mind, I respectfully submit Romania's request to for membership in the Carbon Sequestration Leadership Forum and stand ready to contribute to the Forum's major role in averting global climate change.

Sincerely,

Andrei Dominic GEREA
Minister of Energy, Small and Medium Enterprises, and the Business Environment
Romania



Republic of Serbia
MINISTRY OF MINING AND ENERGY

No: 337-00-179/2015-07

Date: 23 October 2015

Belgrade

Dear Sirs,

I am writing to submit an application of the Ministry of Mining and Energy of the Republic of Serbia to become a member of the Carbon Sequestration Leadership Forum (CSLF). Taking into account that Serbian energy, mining and geology sectors are under the jurisdiction of the Ministry I would like to outline our qualifications for membership through this letter.

The energy sector in Serbia is dependent on fossil fuels which poses challenges and opportunities for the Republic of Serbia. Serbia's primary energy production includes the exploitation and use of domestic resources of coal, crude oil, natural gas and renewable energy. However, coal reserves dominate the domestic energy production, predominantly low-quality lignite, with a share of over 92 % in the total balance sheet reserves. Serbia has in excess of 10 billion tons of low ranked lignite coal, the 3rd largest lignite resources in Europe, which make up 68% of the total domestic primary energy production. Gas holds the second largest share in Serbia's energy mix and almost 90% of gas consumed is imported. As the energy sector causes a large share of greenhouse gas (GHG) emissions in Serbia, the need to develop capacity and measures to mitigate these emissions is becoming increasingly important. This applies to both the mid-term (2020) and the longer terms, taking into account the current and future availability of low carbon technologies, including carbon capture and storage (CCS).

Given its status as an EU candidate country and member of the Energy Community, Serbia is developing its national policy initiatives in line with European policies on climate change and energy. As co-founder of the Sava Commission and an active member of the Danube Commission that drafted the EU Strategy for the Danube Region, Serbia recognizes the importance of international cooperation on climate policy at the regional and global level. Furthermore, Serbia was the first country in the region to announce the INDC pledge to cut emissions 9.8% by 2030, as measured against 1990 levels, ahead of the 2015 UNFCCC conference of parties in Paris, taking a regional lead in the international efforts against climate change under the auspices of the United Nations.

In addition to its international commitments, Serbia has adopted a number of strategic documents, such as the Sustainable Development Strategy (2008) and the National Environmental Protection Program (2010), that not only recognize the importance of the climate change problem but give priority to climate change mitigation activities. Sectoral strategic documents, such as the Strategy for Energy Development for 2015 (as well as the draft strategy for 2025), the Strategy for Forestry Development and the Strategy for Scientific

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and Technological Development, recognize the importance of mitigation and adaptation activities in the context of economic development. Furthermore, in order to develop its low-carbon development pathway in compliance with the EU Climate and Energy Package, the 2030 Framework and the Roadmap 2050, the Republic of Serbia has initiated the preparation of its Climate Change Strategy and Action Plan (CCSAP). The objective of the strategy is to set out a cost-effective pathway for achieving GHG emission reductions by 2020, 2030 and 2050.

It is important for Serbia and the region to ensure the stability of long-term energy supplies in a manner that also contributes to national and regional economic growth. Progress on energy infrastructure is also crucial for Serbia's economic development and security of energy supply. In this context, Serbia seeks to develop domestic sources of energy that can lessen dependency on imports, lead to the creation local and regional jobs, that can increase Serbia's competitiveness, and that can be developed in a manner consistent with Serbia's domestic and international commitments regarding energy and the protection of the environment.

The Ministry of Mining and Energy of the Republic of Serbia has taken the lead in exploring all potential opportunities to develop Serbia's vast indigenous coal resources in an environmentally responsible and sustainable manner. Environmental protection in the energy sector is among the major challenges in developing a knowledge-based economy, leading to increased employment and creating a wide scope of positive external effects. It is, at the same time, a pre-condition for the integration of the national energy sector in the regional and European energy market. The objective is to trigger a modernization process within the energy sector, which should result in full coordination with the EU acquis. In this context **Serbia aims to be the first member of the Energy Community from southeast Europe to devise a national action plan for carbon capture and storage**, thus taking the first step towards setting out its energy strategy priorities for the next decade.

Given the country's existing energy resources, CCS is an integral part of a robust and cost effective national climate change policy that will ensure that Serbia takes advantage of the opportunities arising from pursuing the EU's strategic goals for sustainable growth. To this end, the main provisions of Directive 2009/31/EC have been transposed into the Law on Mining and Geological Surveys, adopted in 2011. A new Law on Mining and Geological Surveys is under preparation. The new law will establish a legal basis for the continuing process of transferring Directive 2009/31/EC into the national legal system. Based on this law, the adoption of bylaws is planned in order to continue the transposition of Directive 2009/31/EC into the national legal system.

Serbia stands ready to take part in projects that would contribute to furthering the development and deployment of cost effective technologies that allow for the continued use of fossil fuels while also supporting the decarbonization of the global energy system.

As such, on behalf of the Ministry of Energy and Mining I respectfully request membership for the Ministry in the CSLF and stand ready to contribute to the CSLF's shared vision.

Faithfully yours,



MINISTER

Aleksandar Antić
Aleksandar Antić

Enc: Signed Charter for the CSLF

**CHARTER FOR THE CARBON SEQUESTRATION LEADERSHIP FORUM:
A CARBON CAPTURE AND STORAGE TECHNOLOGY INITIATIVE
(REVISED)**

The undersigned national governmental entities (collectively the “Members”) set forth the following revised Terms of Reference for the Carbon Sequestration Leadership Forum (CSLF), a framework for international cooperation in research, development, demonstration, and commercialization for the separation, capture, transportation, utilization, and storage of carbon dioxide. The CSLF seeks to realize the promise of carbon capture utilization and storage (CCUS) over the coming decades, and to ensure that CCUS is both commercially competitive and environmentally safe.

1. Purpose of the CSLF

To accelerate the research, development, demonstration, and commercial deployment of improved cost-effective technologies for the separation and capture of carbon dioxide for its transport and long-term safe storage or utilization; to make these technologies broadly available internationally; and to identify and address wider issues relating to CCUS. This could include promoting the appropriate technical, political, economic, and regulatory environments for the research, development, demonstration, and commercial deployment of such technology.

2. Function of the CSLF

The CSLF seeks to:

- 2.1 Identify key obstacles to achieving improved technological capacity;
- 2.2 Identify potential areas of multilateral collaborations on carbon separation, capture, utilization, transport, and storage technologies;
- 2.3 Foster collaborative research, development, and demonstration (RD&D) projects reflecting Members’ priorities;
- 2.4 Identify potential issues relating to the treatment of intellectual property;
- 2.5 Establish guidelines for the collaborations and reporting of their results;
- 2.6 Assess regularly the progress of collaborative RD&D projects and make recommendations on the direction of such projects;
- 2.7 Establish and regularly assess an inventory of the potential RD&D needs and gaps;
- 2.8 Organize collaboration with the international stakeholder community, including industry, academia, financial institutions, government and non-government organizations; the CSLF is also intended to complement ongoing international cooperation;
- 2.9 Disseminate information and foster knowledge-sharing, in particular among Members’ demonstration projects;
- 2.10 Build the capacity of Members;
- 2.11 Consult with and consider the views and needs of stakeholders in the activities of the CSLF;

- 2.12 Initiate and support international efforts to explain the value of CCUS, address issues of public acceptance, legal and market frameworks, and promote broad-based adoption of CCUS;
- 2.13 Support international efforts to promote RD&D and capacity building projects in developing countries; and
- 2.14 Conduct such other activities to advance achievement of the CSLF's purpose as the Members may determine.

3. Organization of the CSLF

- 3.1 A Policy Group and a Technical Group oversee the management of the CSLF. Unless otherwise determined by consensus of the Members, each Member is to make up to two appointments to the Policy Group and up to two appointments to the Technical Group.
- 3.2 The CSLF operates in a transparent manner. CSLF meetings are open to stakeholders who register for the meeting.
- 3.3 The Policy Group governs the overall framework and policies of the CSLF, periodically reviews the program of collaborative projects, and provides direction to the Secretariat. The Group should meet at least once a year, at times and places to be determined by its appointed representatives. All decisions of the Group are to be made by consensus of the Members.
- 3.4 The Technical Group reports to the Policy Group. The Technical Group meets as often as necessary to review the progress of collaborative projects, identify promising directions for research, and make recommendations to the Policy Group on needed actions.
- 3.5 The CSLF meets at such times and places as determined by the Policy Group. The Technical Group and Task Forces should meet at times that they decide in coordination with the Secretariat.
- 3.6 The principal coordinator of the CSLF's communications and activities is the CSLF Secretariat. The Secretariat: (1) organizes the meetings of the CSLF and its subgroups, (2) arranges special activities such as teleconferences and workshops, (3) receives and forwards new membership requests to the Policy Group, (4) coordinates communications with regard to CSLF activities and their status, (5) acts as a clearing house of information for the CSLF, (6) maintains procedures for key functions that are approved by the Policy Group, and (7) performs such other tasks as the Policy Group directs. The focus of the Secretariat is administrative. The Secretariat does not act on matters of substance except as specifically instructed by the Policy Group.
- 3.7 The Secretariat may, as required, use the services of personnel employed by the Members and made available to the Secretariat. Unless otherwise provided in writing, such personnel are remunerated by their respective employers and remain subject to their employers' conditions of employment.
- 3.8 The U.S. Department of Energy acts as the CSLF Secretariat unless otherwise decided by consensus of the Members.

- 3.9 Each Member individually determines the nature of its participation in the CSLF activities.

4. Membership

- 4.1 This Charter, which is administrative in nature, does not create any legally binding obligations between or among its Members. Each Member should conduct the activities contemplated by this Charter in accordance with the laws under which it operates and the international instruments to which its government is a party.
- 4.2 The CSLF is open to other national governmental entities and its membership is decided by the Policy Group.
- 4.3 Technical and other experts from within and without CSLF Member organizations may participate in RD&D projects conducted under the auspices of the CSLF. These projects may be initiated either by the Policy Group or the Technical Group.

5. Funding

Unless otherwise determined by the Members, any costs arising from the activities contemplated by this Charter are to be borne by the Member that incurs them. Each Member's participation in CSLF activities is subject to the availability of funds, personnel, and other resources.

6. Open Research and Intellectual Property

- 6.1 To the extent practicable, the RD&D fostered by the CSLF should be open and nonproprietary.
- 6.2 The protection and allocation of intellectual property, and the treatment of proprietary information, generated in RD&D collaborations under CSLF auspices should be defined by written implementing arrangements between the participants therein.

7. Commencement, Modification, Withdrawal, and Discontinuation

- 7.1 Commencement and Modification
- 7.1.1 Activities under this Charter may commence on June 25, 2003. The Members may, by unanimous consent, discontinue activities under this Charter by written arrangement at any time.
- 7.1.2 This Charter may be modified in writing at any time by unanimous consent of all Members.
- 7.2 Withdrawal and Discontinuation
- A Member may withdraw from membership in the CSLF by giving 90 days advance written notice to the Secretariat.

8. Counterparts

This Charter may be signed in counterpart.

9. Revised Charter

Upon signature of at least five Members, this Charter supersedes and replaces the “Charter of the Carbon Sequestration Leadership Forum (CSLF): A Carbon Capture and Storage Technology Initiative” (June 25, 2003).

Charter of the
CARBON SEQUESTRATION LEADERSHIP FORUM

For the [*Please list the appropriate ministry*] of [COUNTRY]:

_____ 2017 _____
Date Signature