



**For Release:**  
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## **CSLF Endorses Ten New Carbon Capture and Storage Projects**

*Technology Collaboration Critical Step Towards Commercial Deployment*

London, UK--The Carbon Sequestration Leadership Forum today added 10 new carbon capture and storage (CCS) projects to its existing R&D portfolio in an ongoing effort to bring together developed and developing nations in a collaborative quest to curtail manmade emissions of the greenhouse gas CO<sub>2</sub>.

Today's action brings the total number of CSLF recognized projects to 30 and provides the basis for international information sharing on some of the most important projects throughout the world covering all aspects of CCS. All are aimed at gathering the knowledge and experience required to initiate widespread carbon capture and to conduct safe, secure geologic storage on the order of thousands of years.

Currently the CSLF portfolio includes pioneering activities to identify potential storage capacities and projects dedicated to matters such as cutting the costs of CO<sub>2</sub> capture technology and developing new methods of combustion; identifying storage capacity and widening the understanding of geologic reservoirs; predicting the behavior of stored carbon in various kinds of reservoirs; and developing technologies for successful, reliable and long-term monitoring, measurement and verification of stored carbon.

Most projects serve several purposes and a number capitalize on the concept of using CO<sub>2</sub> storage to augment energy production as with enhanced oil recovery and methane recovery from unmineable coal seams.

The projects in the portfolio report progress regularly to the CSLF and results are available to all members, stakeholders and others through the CSLF website. In return the projects receive global visibility.

The 10 new projects include:

- **TXE Carbon Management and Gasification Project** (Beaumont, Texas, USA). The goal of this project is to commercialize an industrial gasification plant that will capture several million tons per year of carbon dioxide (CO<sub>2</sub>). The plant will be built in Beaumont, Texas by TX Energy, LLC, a wholly-owned subsidiary of Eastman Chemical Company. The project will gasify petroleum residue (petcoke) to produce synthesis gas (a mixture of CO and H<sub>2</sub>) for use in production of industrial materials such as hydrogen, methanol and ammonia. Most of the CO<sub>2</sub> generated by the gasification process will be captured as a concentrated stream for sequestration in enhanced oil recovery or other geologic sequestration applications.
- **ZeroGen Project** (Emerald, Queensland, Australia). The ZeroGen project will develop a commercial scale IGCC power station with carbon capture and storage. The power plant will be located at a "mine-mouth" site in the southern Bowen Basin. CO<sub>2</sub> storage is slated to occur in the northern Denison Trough in central Queensland. ZeroGen is a Queensland Government-owned corporation whose mandate is to implement the design

and construction of a commercial scale IGCC power station, and to capture and store the CO<sub>2</sub> emissions within deep saline aquifers.

- **Fort Nelson Carbon Capture and Storage (CCS) Project** (Fort Nelson, British Columbia, Canada). The goal of the Fort Nelson CCS Project is to permanently sequester CO<sub>2</sub> emissions from Spectra's Fort Nelson natural gas-processing plant, estimated to be 2.0 Mt per year, in the deep saline formations of the Western Canadian Sedimentary Basin. The Fort Nelson CCS Project is a partnership initiative of Spectra Energy Transmission, the Energy & Environmental Research Center Plains CO<sub>2</sub> Reduction Partnership, the Province of British Columbia, and the Government of Canada. If proven feasible, the project would be one of the first commercial-scale CCS projects to inject over one million tonnes per year of CO<sub>2</sub> into a brine-saturated formation in North America, making it one of the largest CCS projects in the world.
- **CO<sub>2</sub> Storage in the Limburg Coal and Sandstone Layers** (Geleen, Limburg, Netherlands). The goal of this project is to store by-product CO<sub>2</sub> produced from two ammonia plants into porous sandstone and coal layers 1-2 km deep. It is believed the technology can be used for other European locations where large amounts of CO<sub>2</sub> are produced (heavy industry, chemical complexes, steel industry) in areas where coal and sandstone layers are present.
- **CCS Rotterdam** (Rotterdam, Netherlands). The Rotterdam Climate Initiative wants to achieve 50% emission reduction in CO<sub>2</sub> in 2025 (compared to 1990). The CCS project is an essential part of that ambition. It aims to achieve an annual capture and storage of 20 Mt in 2025. Rotterdam offers a favorable location for a CCS network due to the concentration of industrial emissions in the Port of Rotterdam area and the Port's proximity to significant volumes of storage capacity, both offshore (on the Dutch continental shelf) and onshore.
- **The European CO<sub>2</sub> Technology Centre Mongstad** (Mongstad, Norway). The European CO<sub>2</sub> Technology Centre Mongstad will be a test and demonstration facility for CO<sub>2</sub> capture from flue gases. The facility will comprise two capture technologies; an amine plant and a chilled ammonia plant with a total capacity of 100,000 tons of CO<sub>2</sub>.
- **CCS Northern Netherlands** (Groningen, Netherlands). Achieve significant CO<sub>2</sub> reductions in the short term, but also place the Northern Netherlands on the map as a leading region with respect to energy innovation. The Northern Netherlands provides excellent perspectives for the development of a national and international CO<sub>2</sub> cluster. In addition to an extensive knowledge network, the region offers large potential storage locations and there are plans to build multiple large CO<sub>2</sub> point sources. Furthermore, the region offers both onshore and offshore possibilities for the storage of CO<sub>2</sub>.
- **Demonstration of an Oxyfuel Combustion Systems** (Renfrew, Scotland, United Kingdom). The project goal is to demonstrate oxyfuel technology on a full-scale 40MW burner, making it the largest demonstration of oxyfuel combustion in the world.
- **Lacq CO<sub>2</sub> Capture and Storage Project** (Lacq, France). The project is the first French industrial scale operation that will test and demonstrate an entire CO<sub>2</sub> capture and storage process, from the CO<sub>2</sub> emissions source (an oxyboiler) to an underground storage in an onshore depleted gas field. The capture portion of the project will take place in the industrial complex of Lacq, a town located in the South West of France in the Pyrénées-Atlantiques department in the Aquitaine Region; and the storage at Jurançon, 30 km away from Lacq and south of the city of Pau.

- **Heartland Area Redwater Project** (Redwater, Alberta, Canada). The HARP will implement, on a commercial scale, storage in a brine-saturated carbonate reef. The project is led by ARC Resources, Ltd., a Canadian oil company. The project will take CO<sub>2</sub> from various emitters in the industrial heartland of Alberta, such as fertilizer plants, chemical and petrochemical plants, refineries and oil sands upgrading facilities (e.g., hydrogen plants). The storage target is a very large carbonate reef with an estimated storage capacity of several hundreds of million tonnes of CO<sub>2</sub>.

The CSLF is a voluntary climate initiative of developed and developing nations that account for 75 percent of all manmade carbon dioxide emissions. The members engage in cooperative technology development aimed at enabling the early reduction and steady elimination of CO<sub>2</sub> emissions.

Forum membership spans the world's largest blocs of economic activity, including the North America Free Trade Area, the European Union and the leading economies of Asia. Members are Australia, Brazil, Canada, China, Colombia, Denmark, the European Commission, France, Germany, Greece, India, Italy, Japan, Mexico, the Netherlands, New Zealand, Norway, Poland, Russia, Saudi Arabia, South Africa, South Korea, the United Kingdom and the United States.

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For additional information:  
[www.cslforum.org](http://www.cslforum.org)

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