

## Press Release

# Establishment of a South African Centre for Carbon Capture and Storage (CCS)

*Friday, 27 March 2009 00:00*

A National Centre for Carbon Capture and Storage was launched on 27 March 2009 in Sandton during a Charter Signing Ceremony. The establishment of the Centre will facilitate South Africa's development of one of the most promising potential Climate Change mitigation measures.



(Pictured: left to right)

Ambassador Tor Christian Hildan representing Minister Erik Solheim, the Norwegian Minister of Environment and Development; Deputy High Commissioner Judith Slater, British High Commission; the Minister of Minerals and Energy, Mrs Buyelwa Sonjica and Mr Mputumi Damane, CEO of CEF;

Present at the signing ceremony were the Minister of Minerals and Energy, Mrs Buyelwa Sonjica; Ambassador Tor Christian Hildan representing Minister Erik Solheim, the Norwegian Minister of Environment and Development; Deputy High Commissioner Judith Slater, British High Commission; Mr Mputumi Damane, CEO of CEF; Dr Tony Surridge, acting CEO of the South African National Energy Research Institute (SANERI) and representatives from the other founding financial sponsors of the centre including Anglo Coal, Eskom, Exxaro, Sasol, Schlumberger and Xstrata Coal.

Carbon Capture and Storage (CCS) involves the capturing of carbon dioxide that would otherwise be emitted to the atmosphere and injecting it to be stored in deep geological formations. Carbon dioxide is typically captured from large industrial point sources, compressed into liquid form and injected it into deep geological formations, such as saline reservoirs, coal seams, or depleted oil and gas fields.

CCS is currently the only technology available to make deep cuts in greenhouse gas emissions while still using fossil fuels and much of today's energy infrastructure. In fact, there are many places around the world where carbon dioxide is already stored today. The

International Energy Agency describes it as "one of the most promising options for mitigating emissions in the longer term."

However, it is important to note that CCS is not a replacement for taking actions which increase energy efficiency or maximise the use of renewable or other less-carbon-intensive forms of energy. A portfolio approach, taking every opportunity to reduce emissions, will be required to meet the challenge of minimising global climate change and reducing South Africa's greenhouse gas footprint.

According to the recent Climate Change Summit, South Africa has committed internationally to stabilising greenhouse gas emissions by between 2020 and 2025, plateauing for ten years and then decreasing. CCS forms part of the mitigation measures addressed in the Long Term Mitigation Scenario (LTMS) planning of the Department of Environmental Affairs and Tourism. As a result of the findings of the LTMS study and the potentially significant reduction of the country's carbon dioxide footprint through CCS, the South African government has declared CCS a national research priority.

A preliminary study commissioned by the Department of Minerals and Energy of the CSIR indicated that there were sources of carbon dioxide in South Africa that could be captured. South Africa emits over 400 million tonnes of carbon dioxide per year. Of those emissions, approximately 60 per cent are capturable and therefore potentially available for CCS.

It is possible to track international developments in capture technology, however, storage potential has to be determined locally. A detailed study to identify and assess potential storage sites in South Africa is being addressed in the form of a Carbon Geological Storage Atlas. Work on the Atlas started September 2008 and is scheduled for completion by April 2010.

The success of CCS in South Africa will ultimately depend on the degree of confidence the scientific community has in the country's potential for carbon dioxide storage. This, in turn, will hinge on the development of the human capacity needed to truly understand the risks and opportunities of CCS.

In order to develop both this required human and technical capacity, a number of national and international stakeholders identified the need to establish and support a national CCS research centre. The centre is a Private/International/Public Partnership and financed from local industry, government and international sources

The ultimate goal of the research centre is to demonstrate this technology in South Africa by means of a carbon dioxide injection experiment and ultimately a demonstration plant by 2020.

In addition, the centre will be the supporting research and creation of human capacity in the areas of capture, transport and geological storage technologies, monitoring and verification, risk assessment, regulatory and policy research and public outreach and awareness.

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**Editors Note:**

CEF (Pty) Ltd is involved in the search for appropriate energy solutions to meet the energy needs of South Africa and the sub-Saharan region, including oil, gas, electrical power, solar energy, low-smoke fuels, biomass, wind and renewable energy sources. It also manages the operation and development of the oil and gas assets of the South African government. CEF controls entities with commercial and developmental roles, houses in eight operating subsidiaries. These are PetroSA (the Petroleum Oil and Gas Corporation of South Africa), iGAS (the South African Gas Development Company), Petroleum Agency SA, Oil Pollution Control SA, the Strategic Fuel Fund Association, African Exploration Mining and Finance Corporation (Pty) Ltd and the South African National Energy Research Institute (Saneri). The company also controls divisions such as the Energy Development Corporation (EDC), CEF Carbon, National Energy Efficiency Agency (NEEA) and South African Supplier Development Agency (SASDA).

**About Saneri:**

The South African National Energy Research Institute (SANERI), a subsidiary of CEF (Pty) Ltd, is a joint initiative of the Departments of Science & Technology (DST) and Minerals & Energy (DME). SANERI identifies energy efficiency and demand side management as key research and development (R&D) themes for South Africa.