



Institiúid Ard-Léinn Bhaile Átha Cliath

Dublin Institute for Advanced Studies

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To Whom It May Concern

IRECCSEM PROJECT

The Dublin Institute for Advanced Studies (DIAS) is carrying out an academic research program that aims to understand the geology of the Northwest Carboniferous Basin (County Fermanagh, County Leitrim and County Cavan) to assess the potential for sequestration and long-term storage of man-made carbon dioxide. This project is an independent research project in collaboration with the Geological Survey of Ireland (GSI) and the Geological Survey of Northern Ireland (GSNI). We are not affiliated with any exploration company involved in shale gas exploration.

Carbon capture, sequestration and long-term storage (CCS) is the process of capturing waste carbon dioxide (CO₂) from large point sources (such as fossil fuel power plants), transporting it to a storage site, and depositing the CO₂ very deep (greater than 800 m) beneath the surface where it will reside for all geological time and not enter the atmosphere. The aim is to prevent the release of large quantities of CO₂ into the atmosphere reducing the effects associated with greenhouse gas emissions. CCS is a “transition technology” to take the world from its dependence on fossil fuels to fully renewable energy sources. Ireland is committed to reducing its carbon “footprint”.

Our research project, named *IRECSSEM* for “Ireland’s CCS EM survey”, aims to identify in the Northwest Carboniferous Basin those geological environments that might be suitable for CCS and those that can be excluded from further consideration. To fulfil our research objective, we will make *passive electromagnetic measurements* at many localities in County Fermanagh, County Leitrim and County Cavan. The geophysical method we will use is “*Magnetotellurics*” (*MT*), which is a non-invasive, non-destructive, geophysical imaging method in which Earth’s naturally-occurring electrical and magnetic fields are recorded and subsequently used to produce an image of the rocks below the surface. A method description is attached.

We would greatly appreciate your co-operation and assistance by allowing DIAS personnel access to fields on which to install our highly-sensitive recording instruments. The instrument installation will cause no damage to fields and offers no risk to crops and livestock. It is preferable to work in fields where livestock are not present to avoid physical interference with the equipment and cables. The instrument will remain on site for one to three days and nights only. We plan to carry out the survey between July 15th and August 30th 2015.

I am the Project Leader, and key DIAS personnel involved in the field work are Dr. Joan Campanyà, Dr. Xènia Ogaya, Mr. Colin Hogg and four undergraduate students. DIAS carries public liability insurance to cover its operations in the field (insurance certificate attached). It is understood that our instruments are installed entirely at DIAS’ risk.

The project is funded by Science Foundation Ireland (SFI) and more information can be found at: www.ireccsem.ie.

If you have any queries, please contact me.

Yours sincerely,

Dr. Volker Rath, Senior Researcher

