

International Energy Agency issues warning on carbon capture

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BRITISH COLUMBIA — Underground storage of carbon dioxide has been hailed as the ultimate solution to climate change, but there's no evidence it can actually avert a global warming disaster.

Across the world, the private sector and governments are spending “nowhere near” the amount of time and resources necessary to develop technology for capturing and disposing of carbon emissions, the International Energy Agency is warning in a new report.

The IEA warns of “major impacts on the environment and human activity” unless there is a massive surge in research and development of clean coal technology and carbon capture and storage.

Almost 70 per cent of all carbon dioxide emissions globally are energy-related, and the IEA warns that they will increase 130 per cent by 2050 in the absence of new technology and policies to curtail them.

The IEA says the next 20 years are critical to development of technology to capture the carbon dioxide emitted by energy generation and industrial processes and pipe it underground.

The IEA notes that the G8 group earlier this year endorsed an IEA proposal to embark on at least 20 large-scale carbon capture and storage research projects by 2010. Missing that deadline could be devastating. A failure to curtail emissions from the energy sector in particular could double the pace of global warming in this century, it says, citing a 2007 report from the Intergovernmental Panel on Climate Change.

Without those projects to lead the way, it's unlikely a target of 10,000 carbon capture and clean coal projects will be in place by 2050.

“Current spending and activity levels are nowhere near enough to achieve these deployment goals,” the IEA says, noting rapid escalation of technology costs over the past five years, lack of public and private funding for demonstration projects, and an absence of regulatory support and incentives.

Canada is home to one of the world's largest carbon storage projects, in Weyburn, Sask., while Spectra Energy is in the early stages of another world-class project at the Fort Nelson gas processing plant in northeast British Columbia.

Gary Weiling, Spectra's vice-president for strategic development and external affairs, said in a telephone interview that many of the delays for large-scale projects relate to an absence of government policy.

Spectra is proceeding with its project, the proposed containment of 1.2 million tonnes per year of carbon dioxide emissions at Fort Nelson in a deep underground saline reservoir.

Weilinger noted that the storage project, when realized, will add significantly to the production costs of natural gas at the plant — but if governments make it cheaper for a less-motivated producer to buy carbon credits and just keep polluting the atmosphere, then there's no incentive for investing in the new technology.

As well, there are unresolved issues about long-term liability for stored carbon. If an unrelated gas exploration company breaches the periphery of an underground containment field, it's not clear who would be at fault, Weilinger said.

Nor are there any specific government policies in place around carbon containment infrastructure such as pipelines, access to Crown and private land and aboriginal rights and title.

Weilinger compared the development of a carbon capture sector to the development of any large-scale public infrastructure project, the latter typically requiring several years worth of regulatory work before any substantial development takes place.