

Scotland on Sunday:

Experts show official wind power claims are hot air

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CONTROVERSIAL plans to build thousands of wind turbines across Scotland will make almost no difference to greenhouse gas levels, according to new research by leading environmental scientists.

The Oxford Institute for Energy Studies says that even on the most optimistic assumptions, renewable sources of energy, such as wind power, will have only a "minor impact" on reducing carbon dioxide emissions.

The report, by one of the UK's leading think tanks on energy policy, is a serious setback for the Scottish Executive. Ministers hope to convince voters that around 70 new wind farms will make a significant contribution to slashing carbon dioxide levels by at least 20% over the next 15 years.

But the institute's report argues that previous experience shows governments fail to meet their targets for building wind farms, and even when they do deliver their promises, they have little impact on greenhouse gas levels.

Other technologies, such as nuclear energy, which produces no carbon dioxide, now deserve to be given closer consideration by ministers, even if they are unpopular with voters, the report says.

New nuclear power stations in countries such as France have played a major role in reducing carbon dioxide levels over the past two decades, it adds. But reliance on renewables and energy efficiency measures "is not a proven or reliable way of making big carbon dioxide reductions".

Carbon dioxide pumped out by road traffic, industry and power stations that use irreplaceable fossil fuels such as coal, oil and gas, is a major contributor to global warming and plays a part in accelerating dangerous climate change around the world, claim campaigners.

The Scottish Executive is hoping to cut emissions by producing more than one third of the country's electricity from renewable sources by 2020. Within 15 years, it is planning to have 2,500 turbines in operation compared with 330 now, enabling

conventional power stations to be closed.

The Oxford research gives fresh ammunition to community groups fighting the rapidly increasing number of wind farm projects throughout Scotland.

The report was compiled by senior research fellow Malcolm Keay who looked at European government attempts to reduce greenhouse gas levels to meet targets set by the Kyoto climate change treaty, which came into force earlier this month.

Keay said: "Wind farms will not deliver the reductions that governments are hoping for. Even if wind farm targets are met, then it will only have a very small impact on reducing carbon dioxide.

"Across the UK as a whole, that will be offset by the retirement of nuclear plants by 2012. That will be true of Scotland as well, as Hunterston B [in Ayrshire] is due to be retired in that period. The net effect on carbon dioxide emissions will be zero, however fast wind farms are built."

There are alternatives which governments must now examine even if they are politically unpalatable, Keay added. The first is taxing industry and drivers more heavily. The second is either retaining nuclear power at present levels or expanding the network of stations.

"If you are serious about climate change then you have to go for these difficult measures because what the government is talking about right now just won't work," he said.

"Renewables won't deliver the reduction in carbon dioxide emissions that we want."

Some campaigners insist wind power is not an effective renewable energy supply, pointing to the experiences of European countries with more advanced schemes than Britain's. In Denmark, carbon dioxide emissions have continued to rise as older coal power stations have been forced to make up for shortfalls in electricity on low wind days.

A recent government study in Germany, the world's leading wind energy producer, concluded wind farms were expensive and inefficient.

A spokesman for the Scottish Executive said it had not had time to

consider the Oxford report, but it was "confident" it would reach its targets both for producing energy from renewable sources and cutting carbon dioxide levels.

But Views of Scotland, the anti-wind-farm pressure group, said it was a "serious concern" that independent research had concluded that the Executive's carbon dioxide reduction strategy was badly flawed.

"The Institute argues convincingly that the UK's overall Kyoto targets will probably not be met and would do little to cut carbon dioxide emissions in any case. The government's case is smoke-and-mirrors."

The UK government is already giving clear signals to the nuclear industry that it will consider the case for new power stations following the expected general election in May.

One leading energy academic says the Scottish Executive will have to sanction at least one new nuclear power station to meet its targets on reducing carbon dioxide levels and cleaner energy.

Professor James McDonald, director of the Institute of Energy and Environment at Strathclyde University, said: "It is going to be difficult for the Scottish Executive to meet its 2020 targets without building more base load plants [conventional power stations] in Scotland. By then the only stations they will have left will be the gas power station in Peterhead and Torness nuclear power station.

"And with Scotland being the engine room for renewable energy sources for the whole of the UK, there is going to be a need to build at least one nuclear power plant together with either cleaner coal plants or gas turbine plants."

The difficulties of meeting wind power targets became apparent again last week when two of the country's most powerful landowners came out on opposite sides of the debate.

The Duke of Roxburghe's estate in the Borders announced it was backing plans for a 62-turbine wind farm in a bowl within the Lammermuir Hills, south of Edinburgh.

But the Duke of Buccleuch, who also owns a huge Borders estate, is objecting to a separate wind farm development close to his home at Bowhill, near Selkirk. A spokesman said the 13 proposed turbines, each 400ft high, would have a serious impact on the beauty of the area.