

Natural gas gives edge to US manufacturers

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The US could cut its carbon dioxide emissions by 8 per cent with minimal additional capital investment, simply by making more use of existing gas-fired power plants, according to a study from the Massachusetts Institute of Technology released on Thursday.

The report, "The Future of Natural Gas", argues that the opening up of new shale reserves "fundamentally enhances the nation's long-term gas supply outlook", creating a competitive advantage for American manufacturers and making it easier to cut emissions.

The development of long-reach drilling and hydraulic fracturing – injecting water and chemicals underground at high pressure to release the trapped gas – has opened up huge reserves that were previously uncommercial.

Hydraulic fracturing, or "fracking," has led to growing environmental concerns, and the MIT study acknowledges that there is some evidence of gas leaking into fresh-water sources, "most likely as a result of substandard well completion practices by a few operators".

It also points to issues with the disposal of fracturing fluids after use; a particular problem in states such as Pennsylvania that do not have experience with modern oil and gas development.

However, Professor Ernest Moniz of MIT, the author of the report, said that while consistent regulation was essential, further development of shale gas would be "challenging but manageable".

One benefit already emerging is the boost to US industry created by lower energy and raw-material costs, with several companies announcing or assessing plans for new petro-chemical plants that use gas as a feedstock.

Professor Moniz said switching from coal to **gas-fired boilers** was also likely to be the cheapest way for US companies to comply with proposed pollution limits from the Environmental Protection Agency. Coal fuels about two-thirds of all large boilers now in use.

Similarly, a switch from coal to gas for power generation would cut both local pollution such as mercury and carbon dioxide emissions, he added.

The US has a large installed base of gas-fired power plants that are used at only about half their potential full output. If they were run at maximum capacity, and old inefficient coal-fired plants taken off the grid, US greenhouse gas emissions from power generation could be cut by 20 per cent, and from the country as a whole by 8 per cent, the MIT study concluded.

However, the coal industry argued that the history of volatility in prices, and the risk that shale production could cause higher greenhouse gas emissions, meant that the "jury is still out" on natural gas.

Steve Miller, president of the American Coalition for Clean Coal Electricity, said: "This could be a golden era for natural gas, but there are real concerns over whether the unconventional resources that will be needed for that to happen are going to be able to meet every challenge they face."

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