

UPDATED RESEARCH at Cornell University in New York has found that methane emissions from hydraulic fracturing (fracking) of shale gas deposits would contribute more to climate change than emissions from conventional natural gas and even coal.

The latest research by Prof Robert Howarth, director of Cornell's agriculture, energy and environment programme, shows that one well-pad fracking shale gas would emit more greenhouse gases than a community of 100,000 people in a year.

At a side event during the UN climate change conference in Durban last week, Dominic Frongillo, a town councillor in Caroline, New York – which sits on top of the Marcellus Shale seam – said this showed fracking was “worse for the climate”.

“Before I left for Durban, Prof Howarth told me that ‘preventing unconventional gas extraction could be the number one thing we could do in the short term to control growth of US greenhouse gas emissions’,” he told a press briefing hosted by Cornell.

Mr Frongillo, who is the youngest member of the Caroline town board, also noted the US Environmental Protection Agency estimated that methane – 100 times more damaging than carbon dioxide – accounts for a sixth of US greenhouse gas emissions.

Fracking would “release massive amounts of methane that is now safely miles underground”, he said. “It’s our biggest and easiest opportunity to stop a huge new source of climate-killing emissions in the US and several other countries.” Mr Frongillo cited a memo leaked last October from Canada’s deputy environment minister, Paul Boothe, describing shale gas as a “game changer” and the “next big oil sands” – a reference to the vast fields of sub-surface oil exploited in Alberta.

Marcellus Shale, which extends deep underground from Ohio to southern New York, has been estimated to contain 489 trillion cubic feet (13.8 trillion cubic metres) of gas, while New York State consumes 1.1 trillion cubic feet a year. After discovering that 55 per cent of the land in Caroline had been leased for drilling, local people formed a group called Rouse (Residents Opposed to Unsafe Shale-gas Extraction) and organised a petition calling for fracking to be banned. The petition was the largest in the town’s history and it was presented to the council last September. “We are now calling on New York governor Andrew Cuomo to ban fracking in the state,” Mr Frongillo said.

He described Caroline as a “small, quiet rural town” that valued its independence and sense of community. But now it was “part of a much larger story of dirty energy extraction . . . deteriorating our atmosphere, and putting our children’s lives at risk.”

Mr Frongillo said: “The benefits of the sale of this methane gas beneath us go to enrich faraway, already subsidised corporate shareholders – they don’t care about our energy independence and they don’t care about being patriotic.”

According to Patrick Bonin, of the Quebec Association Against Atmospheric Pollution, the expansion of fracking is now happening in Canada as well. “We are seeing the same rush to develop shale gas as we did with tar sands”, he said in Durban.