



Information letter for those to whom fracking matters and (some) updates on the website FFI
contact: ineke@frackingfreeireland.org visit: www.frackingfreeireland.org

Thanks to all for the contribution

***Our friends teach us what we can do
Our enemies teach us what we must do***

***This is not the fight of our lives
This is the fight for our lives***

Upcoming events

We are manning a stand in **Sligo** in the week before **Christmas**. It will be on O Connell Street, the main thoroughfare, outside McGarrigles Pub, (the manager of the pub is providing a canopy, lights, and table) and we will have literature on fracking, badges, and info stand, and letters to Pat Rabbitte, and a special festive card for people to sign and send to their own TD's, (basically, instead of "Noel, Noel, Noel, Noel", it will read, "No wells, No Wells, No Wells, No Wells" (with a gas flare instead of a star. If anyone would like to volunteer a few hours, or add some material, stickers, etc, please get in touch with Northwest Network against Fracking at youthmardingo@gmail.com or phone Meg on 0863840254. peace everyone

The Love Leitrim Manorhamilton Group has a stand at the LSC Christmas Open Art Exhibition for a week **from Friday 9th**. The Show is open Monday to Saturday 12pm to 4pm but closed Sunday, until 23rd December.

We have information on fracking and T shirts, hi-viz jackets and stickers for sale

Leitrim Sculpture Centre
New Line
Manorhamilton
Co Leitrim
www.leitrimsculpturecentre.ie
Telephone: 071 985 5098

LSC acknowledge the financial support of the Arts Council.

All upcoming events on:

<http://frackingfreeireland.org/upcoming-events/>
visit also: <http://what-the-frack.org/events/>

COUNTY CLARE

What's happening in Clare, in brief: **Roisín Ní Ghairbhith** roisincorran@gmail.com

- 1. Gasland** the documentary has been shown in 4 locations in Clare
- Individuals from the Clare Fracking concerned Group have done **stalls** at Kilrush and Ballyvaughan farmers markets, A stall has also been done by them several times on shop street in Galway.
- Clare Fracking concerned have also secured a 10 minute presentation **to Clare County Council** in their chamber at their next county council meeting on **9th of January**. Aedin McLoughlin has also been asked to attend to give a short presentation. The plan is to have a motion proposed directly after by Gabreil Keating a Fine Gael Councillor from West Clare who got it on the agenda in the first place.
- Sub groups of Clare Fracking Concerned have formed in West Clare, East Clare and North Clare.
- There is a **group email list** with over 50 emails who are kept up to date with what's going on and this list have been sent a list of all the councillors in Clare with their contact details asking them to ring their councillors asking them to support the motion that is to be proposed at the council meeting in January.
- These **phone calls** are happening on a daily basis and copies of gaslands are being sent to some of them who have requested a copy. All 4 Clare T.D.s are being asked to attend the presentation on the 9th of January also.

7 Other venues are being secured for a **viewing of gasland** with a discussion and distribution of info to follow straight after.

8. there has also been very **uncontroversial articles** in both county papers for the last 2 weeks, **2 very good letters** were also printed in the paper expressing deep concerns, 1 from an individual and one from the founder of the Irish Seed Savers association and we have done interviews on West Clare radio and one on the county **radio station** Clare Fm

9. we have secured a small amount of funding for the campaign and to this end we have bought a further 10 copies of Gasland and are pricing anti fracking bumper car stickers

So though we are only in our infancy we are progressing nicely

10. we also intend to hold **a county wide public meeting on fracking in Ennis** in early January prior to the presentation to the council

thanks to all the help and encouragement to date from the hard working people in Roscommon and Leitrim

mise le meas Róisín

REMINDER

The fracking-Ireland Google groups fracking-ireland@googlegroups.com received recently (5 Dec) this email - and it was added to the newsletter. I wish to replace the article, it could be lost in the former newsletter due to all other topics. Did someone respond or contact Prof. Declan? We can at least add this prof. to our email list ☺

This was sent to MLAs, newspapers.

Dear

I apologise in advance for this unsolicited email.

I have very recently become aware (via the attached document recently sent to all GPs in Fermanagh) that the technique of hydraulic fracturing, commonly called "fracking" is proposed to be used for shale gas extraction in areas of Fermanagh.

I am so deeply uneasy and concerned about this proposal that I am prompted to write to you. Although I write in a private capacity, I am informed by my background as a practising scientist for over 30 years.

I first became aware of this issue while I was a Visiting Professor at Stanford University in the summer of 2009. At that time, there was much discussion about this controversial issue in the US. It was apparent then to me that the technique had very serious health and environmental concerns that would need to be scrutinised thoroughly before it could be authorised.

The attached document gives much clear detail on the potentially deleterious health and environmental impact of this technique. My major concern is that this technique could be introduced **without sufficient investigation or indeed general awareness of its potential harm** to the health and environment of people in Fermanagh.

One of the areas concerned is near Florencecourt, an area whose geology I became familiar with many years ago as part of my studies. It is a place of outstanding natural beauty and attracts many thousands of visitors yearly. However I know from my studies that the nature of the geological strata is such that contaminants introduced in one area will rise up again many miles from the original site.

My own background is that I come originally from Omagh and studied chemistry, obtaining a PhD in Queens in 1983. Also in the 80s, I won a Fulbright Scholarship to work in MIT under Professor K. B. Sharpless. My work there formed a small part of the body of work for which Sharpless was subsequently awarded the Nobel Prize (2001) and I am gratified that he acknowledged this in his Nobel Address. I have worked here at UCD since the early 90s and have published over 70 scientific papers in the areas of chemistry and catalysis as well as starting a Campus Company based on a breakthrough from my group.

My specific interest in this area of Fermanagh arises because I took Geology as my Subsidiary Subject in Queens and I studied the geology of Upper Lough Erne, including the areas around Florencecourt and Marble Arch (before the latter was a vibrant tourist attraction).

I believe that there will be discussion of this issue on Tuesday this week in the NI Assembly.

I appeal to you to act to prevent the introduction of this technique in Northern Ireland without a thorough review of its safety.

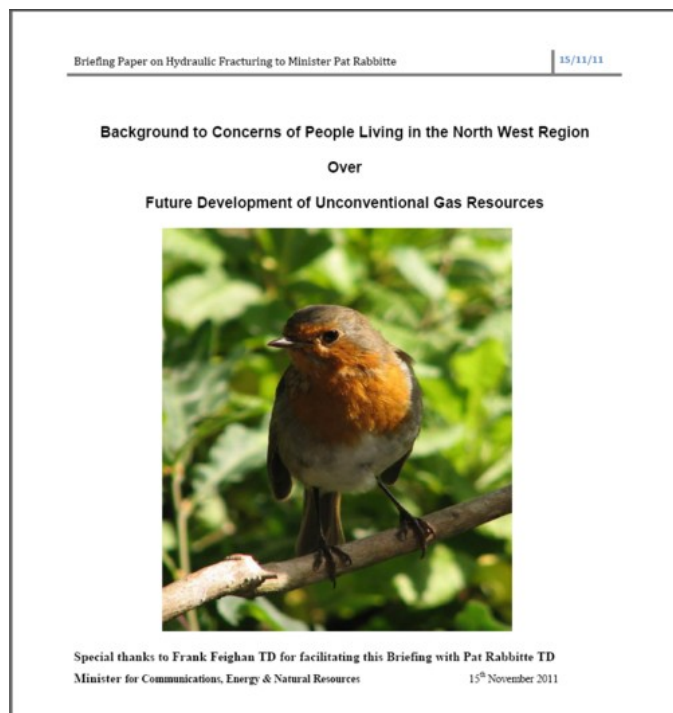
Thank you for your patience

Regards

Declan Gilheany

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REPORT and BRIEFING PAPER



Brian Hayes TD: Concerns of People Living in the North West Region Over Future Development of Unconventional Gas Resources

<http://ubuntuone.com/1r8ZS2pqo89TVSiNwittqm>
(Web FFI: Contact/letters politicians)

Some good News. – BY Eddie Mitchell
eddiejmitchell@gmail.com

Leitrim County Councilors: Sean Mc Dermott, Siobhan mc Gloin, Frank Dolan, Enda Mc Gloin, John Mc Ternan and John Ward presented Brian Hayes TD , Minister of State for Public Service Reform and the Office of Public Works with a copy of a document that outlines concerns of Locals in the North West yesterday.

"Background to Concerns of People Living in the North West Region Over Future Development of Unconventional Gas Resources"

This document has been produced with the help of Dr Aedin McLoughlin, Rob Doyle, Nuala McNulty, Johnny Gogan, Miriam Hennessy, Michael Ewing, Eddie and Olivia Mitchell.

Report -

<http://frackingfreeireland.org/wp-content/uploads/2011/09/Report-on-meeting-with-Pat-Rabbitte-TD-November-15th-2011.pdf>

(Web FFI: contact/letters politicians)

Report on meeting with Pat Rabbitte November 15th 2011

Report on meeting with Pat Rabbitte November 15th 2011

A delegation of concerned citizens from the North West met with Minister Pat Rabbitte, minister for communications, energy and natural resources in Dail Eireann on November 15th re the possibility of a licence being granted for shale gas extraction using the method of hydraulic fracturing. The delegation consisted of Aedin McLoughlin, Rob Doyle, Nuala McNulty, Eddie Mitchell and Miriam Hennessy, the meeting was arranged by Frank Feighan, TD. Other attendees at the meeting were: Michael Colreavy TD, Luke Ming Flanagan, TD, Joe O'Reilly, TD, Tony McLoughlin, TD, John Feely and representatives from the petroleum affairs division.

Aedin McLoughlin (AML) began with a presentation to the group on The Environmental, Social and Economic impacts of Hydraulic Fracturing.

Rob Doyle (RD) gave a presentation on Agriculture, Human Health and Economic Concerns

Nuala McNulty (NMcn) presented on Tourism/Ecotourism in the NW, Vision for the area and Government commitment to tourism

Eddie Mitchell (EM) gave a summary of the concerns of the community around shale gas extraction covering the areas of Energy security, Public Health, Agriculture, Manufacturing, Current situation in the US and EU, Tourism and the Aarhus Convention

All attendees received a written copy of the presentation, which was prepared by Eddie & Olivia Mitchell, Aedin McLoughlin, Robert Doyle, Nuala McNulty, Johnny Gogan, Miriam Hennessy and Michael Ewing.

Minister Rabbitte thanked the group for their presentation which was intelligent and comprehensive. The group discussed with the minister, and other attendees the concerns of the residents in the North West in relation to human and animal health, loss of sustainable jobs, industrialization of the area and breakdown of community should hydraulic fracturing commence in the area.

Minister Rabbitte acknowledged the concerns, discussed the difficulties facing the government and country in relation to energy security, that

90% of our energy is imported and that he has requested that the EPA carry out a study on hydraulic fracturing.
RD pointed out that Leitrim, with the number of wind farms it contains is close to carbon neutral. The group discussed the terms of reference of the EPA study on fracking.
Minister Rabbitte confirmed that they have not yet been set but that an initial consultation has commenced with Aberdeen University and this would lead to the terms of reference being set, this study will be completed in 2-3 months.
EM asked that a full Life Cycle Analysis to include human health be carried out.

Minister Rabbitte invited the group to make a submission to the EPA which was agreed.
Minister Rabbitte stated that, if there was a public health issue the economic benefits would be irrelevant, he also said that he would consult with the Northern Irish authorities re the granting of the second stage of the licence there as to their rationale for that.

Following the meeting, the group asked Deputy Frank Feighan to arrange a delegation to meet Minister Phil Hogan, Minister for the Environment, Community and Local Government and this was agreed.

Nov 2011

CONCERNS/CALL - by Nathalie
n.descheres@socratconsulting.com

How do we articulate a vision of what we stand for that goes beyond what we are against?

(please find respond – research article - by Charlie Williams
charlie2williams@gmail.com owner of fracking-ireland@googlegroups.com at the end of the newsletter)

Dear all,

I have been providing updates on the status of fracking for quite some time now and I have a particular interest for the political wrangling happening behind doors. Shortly I will send an update on the actions of the French pro-fracking factions to make gas shaling socially acceptable. Once again local communities are left out, all the lobbying is at government level.

This raises a concern in my mind that seems to have been echoed by other in Ineke Scholte newsletter. How do we articulate a vision of what we stand for that goes beyond what we are against? I think answering such question is

important in order to gather wider population support and offer decent alternative to blind natural exploitation. Since we are considered an "economically poor" region, we probably need to go beyond saving eco-tourism and asking for stronger regulations.

I have also forwarded articles and reports that describe the industry unethical lobbying and scare tactics. I feel that as awareness of such practice is spreading, it is possibly a viable tactic to frame the industry behaviour within the principles in which we want to live as a society (rather than vice versa as happening). Those are high level ideas but answering the above question would help in defining a positive alternative and gather Irish support rather than generate just Connacht/Ulster unrest.

Here are some ideas that may be worth investigating to expand the current script:

Concerns

- Obviously the now-well documented environmental, farming, economic and health concerns are in order but maybe a central repository of formal reports from all over the world is required. I am aware of some reports but they seem to be shared among people rather than put into a central repository. I am raising this issue because my understanding is that P. Rabitte has asked the Aberdeen University to scope a research on the pros-and cons of fracking. Being able to pull all these resources at once, might help in preventing a scope that could be decidedly pro-fracking based on Aberdeen ties with the industry.

- Maybe a local geological report may be helpful in investigating whether it is physically possible to frack here. I am not a geologist but it seems to me that the nature of the clay makes it impossible to absorb any amount of water at all. It seems that some level of absorption should be required to cope with the amount injected. Also the local weather conditions and recent increase in local flooding would seem to compound the risk for major inundation. I know the general technique of fracking is well documented, but maybe it is worth putting the nuts and bolts in a local context geologically and meteorologically.

- Integrity of decision makers and lobbying strategies of the gas industry. It

is a bit dicey since it means tracking the allegiances of the decision-makers and their advisors. Recently the husband of northern Ireland energy ministry has been uncovered as owning land licensed to tamboran, at the last meeting a gentleman (friend of tara) indicated connections between Conor Lenihan and the chemical industry. Certainly in France, Sarkozy has pro-fracking moguls as godparent to his kids, Eva Joly (green presidential candidate) has received death threat while uncovering Elf Aquitaine unethical behaviour. Here and anywhere, the extent of media control is another aspect of society dancing to the tune of private interests rather than defending and protecting the ideals we can aspire to.

Support

- Green energy generation and energy conservation – What can be done in terms of generation but also in terms of conservation. If energy security is such a hot issue, how come that wasting energy is permitted?

- Transparent democracy – this should be an appeal to the ideal of community involvement and the importance of mandate of elected representative. It is about time that mandates are respected for what they are, rather than an empty mean to power. I am not familiar enough with the constitution to say whether our opposition to fracking and industry tactics could be defended at a constitutional level. Maybe it is worth investigating.

- Trustworthy political system – In the current context, it is nearly laughable but it is something we are entitled to and maybe an argument that could generate support from part of society unconcerned by fracking but without outlet to voice their concerns/disgust/distrust about the present political scene.

- Long-term sustainable and equitable balance of people, government and industry interests. We live in a finite environment, which our society ought to protect by caveating the industry – not the opposite. Reign the infinitely greedy industry and corporations at once.

- Sustainable, observation-based and people oriented regulatory framework calls for a decision making based on principle and not misleading research. Any scientific research can be portrayed in a way that support any given view.

Principles transcend this, we do not need this source of energy, we have managed without it before. If we need energy, let's cut on waste first.

- Initiatives improving climate change issues and fracking does not fit this approach. Alternative green energy and fighting waste does.

Those are, I am very aware, very high level thinking and ideas. But is there anybody out there to chip in so we could start putting meat on the bone? This could also become the basis of interaction when dealing with politicians and media (as requested by some of Ineke's reader)

This is my own rambling, is there any work done toward these aims (positive vision and creating wider momentum) so maybe it is not such a big undertaking? If the industry is a bully, we need to become bigger, broader and louder than it is. I am appealing for feedback: is it worth pursuing?

Kind regards,

Natalie

UPDATES WEB FFI

10 DEC

Fracking News: Bulgarians Protest against Shale Gas Exploration

Some 200 people gathered on Saturday in Bulgaria's capital Sofia to protest against the potential shale gas exploration in the country.

The march started in front of the Environment Ministry building in Sofia, passed through the parliament and ended in front of the Ministry of Economy, Energy and Tourism.

The protesters demanded that the controversial hydraulic fracturing technology should be abolished in Bulgaria and called for legislative control over oil- and gas extraction technologies.

Over 10 000 Bulgarian citizens have signed under the demand for a moratorium on hydraulic fracturing for shale gas extraction and research in the country, Angel Slavchev, one of the protest's organizers, has told dariknews.bg.

http://earthfirstnews.files.wordpress.com/2011/12/photo_verba_134726.jpg is extremely democratic and may lead to...

Bulgarians Protest against Shale Gas Exploration
10th December

<http://earthfirstnews.wordpress.com/2011/12/10/fracking-news-bulgarians-protest-against-shale-gas-exploratio/>

(Web FFI: Global fracking/global protest)

Write! lots of comments to be made!



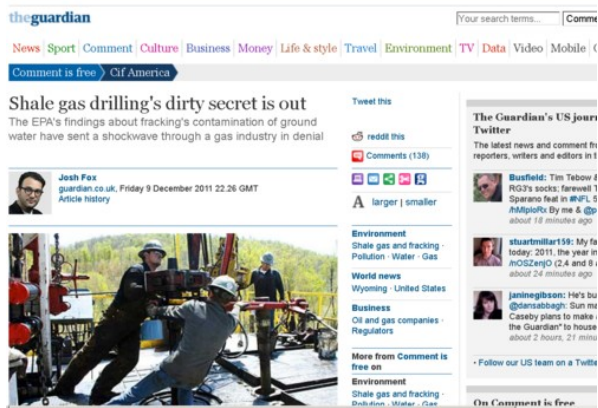
Shale gas could provide fuel independence for the US

<http://www.irishtimes.com/newspaper/ireland/2011/12/12/1224308954040.html> (12 Dec 2011)
(Web FFI: Irish Press)

Comment by Charlie

charlie2williams@gmail.com -

Apart from a couple of soothing lines, no word about [EPA blames fracking for Wyoming pollution](#) (Financial Times!), no word that [Shale gas drilling's dirty secret is out](#).



(Web FFI: Irish Press/UK)

The Irish Times could have done better. And they already showed us that they can => [What the frackers forgot to tell us about the shining example of solar power](#) (Web FFI: Irish Press)



US study on impact to drinking water likely to inform drilling policy in Europe

<http://www.irishtimes.com/newspaper/ireland/2011/12/12/1224308954032.html> (12 Dec)
(Web FFI: Irish Press)



Company says it welcomes strict regulation

- <http://www.irishtimes.com/newspaper/ireland/2011/12/13/1224308997482.html>
(13 December) (Web FFI - Irish Press)

Comment by Ineke: we have to challenge the Dutch prof. de Pater who is claiming that there is fracking in the Netherlands for 20 years. No one knows about it, no clue which part of the Netherlands he is talking about.



Community caught between possible gas boom or risk of environmental disaster -

<http://www.irishtimes.com/newspaper/ireland/2011/12/13/1224308997503.html> (14 December)
(Web FFI - Irish Press)

Exploration company's arrival divides English village



In this section »

- US study on impact to drinking water likely to inform drilling policy in Europe
- Shale gas could provide fuel independence for the US

MARK HENNESSY

LANCASHIRE DRILLING: ON A DARK, wet November night, Singleton is a quiet village with just a few cars parked at the Miller's Arms, but beneath the surface divisions have been exposed between

Latest

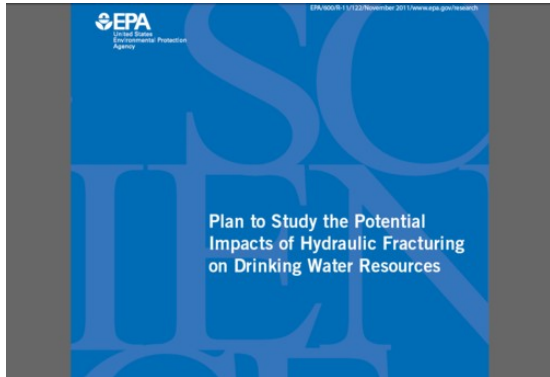
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- 17:42 Gabe

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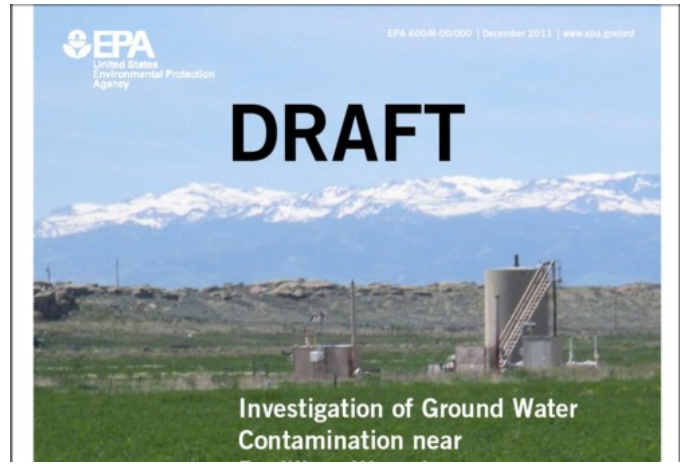
Exploration company's arrival divides English village

<http://www.irishtimes.com/newspaper/ireland/2011/12/12/1224308954056.html> (Web FFI: Irish Press and UK)



http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/upload/hf_study_plan_1102_11_final_508.pdf

(Web FFI: Official reports and official reports/research)



You will also find the **draft report** at the same place.

http://www.epa.gov/region8/superfund/wy/pavillion/EPA_ReportOnPavillion_Dec-8-2011.pdf?mid=54



http://www.nytimes.com/2011/12/09/us/epa-says-hydraulic-fracturing-likely-marred-wyoming-water.html?_r=2&partner=rss&emc=rss

(Web FFI: official reports/research- articles)

Charlie: charlie2williams@gmail.com

The EPA is one of our most important targets. Anybody with connections?

FRACKING AND RENEWABLE ENERGY - by: Charlie Williams - charlie2williams@gmail.com

I recently put a piece together against nuclear power, pro renewables. Maybe the one or the other argument is useful:

It would be pure insanity if Ireland would now jump onto the nuke wagon when other countries are pulling out of that unsafe and expensive technology.

Nuclear power is more expensive than renewable energy. There is already more electricity produced by renewables than by nuclear, worldwide.

Fossil fuel subsidies are 10 times those of renewables.

(<http://www.guardian.co.uk/environment/2010/aug/03/fossil-fuel-subsidies-renewables>)

=> [Nuclear Subsidies – how the market is rigged in favour of dangerous nuclear electricity](http://www.no2nuclearpower.org.uk/reports/Nuclear_Subsidies.pdf)
(http://www.no2nuclearpower.org.uk/reports/Nuclear_Subsidies.pdf)

=> [Corporate Watch: Nuclear Industry](http://www.ethicalconsumer.org/CommentAnalysis/CorporateWatch/NuclearIndustry.aspx)
(<http://www.ethicalconsumer.org/CommentAnalysis/CorporateWatch/NuclearIndustry.aspx>)

British Energy

British Energy is the UK's largest electricity producer, generating around 20% of the country's electricity and owning and operating two thirds of Britain's nuclear power stations. It was privatised in 1996, in spite of dire warnings from Friends of the Earth and Greenpeace about the likely extent of future clean-up costs.

Sure enough, in 2002 the company declared itself effectively bankrupt and the government bailed it out, guaranteeing to meet a significant part of the costs of waste disposal and making ongoing payments since early 2004 towards the cost of treating its spent fuel at Sellafield. British Energy revealed in February 2006 that the liabilities underwritten by the taxpayer had increased by £1bn to £5.1bn.

=> [Renewable Energy Passed Up Nuclear in 2010](http://uk.ibtimes.com/articles/20110418/renewable-energy-passed-nuclear.htm)
(<http://uk.ibtimes.com/articles/20110418/renewable-energy-passed-nuclear.htm>)

"... despite the fact that the nuclear industry has received several times more subsidies historically than renewable resources. Renewable energy just makes more sense"

Meanwhile, wind energy already has **a positive impact on wholesale prices due to fossil fuel savings** and is therefore **compensating Public Service Obligations**. => [Impact of Wind Generation on Wholesale Electricity Costs in 2011](http://www.eirgrid.com/media/ImpactofWind.pdf), (<http://www.eirgrid.com/media/ImpactofWind.pdf>) Eirgrid, SEAI.

Key Messages

- The wind generation expected in 2011 will reduce Ireland's **wholesale** market cost of electricity by around €74 million.
- This reduction in the **wholesale** market cost of electricity is approximately equivalent to the sum of Public Service Obligation (**PSO**) costs, estimated as €50 million, and the increased constraint costs incurred, due to wind in 2011.
- The total cost of generation is the sum of the **wholesale** cost of electricity, the **PSO** cost of wind and the dispatch constraint costs. **The total cost does not increase with the inclusion of the 2011 wind capacity.**

In Ireland wind energy is already "bailing out" carbon intensive electricity coming from burning peat.

Public Service Obligations (PSO) are designed to finance **alternative energy requirements**.

But **85.6%** (<http://www.scribd.com/doc/54656285/42/PSO-Levy-for-Recovery-of-Peat-Costs>) of Irish **PSO** levy go to **peat** burning. 95% of Irish **peat** harvest go into electricity production only producing some 6% of our national demands, emitting more carbon per unit than coal.

Wind energy is covering some 11% of our demands, about as double as much as burning turf, in exchange for less than 1/100 of that carbon footprint.

This is an ecological scandal itself. Only few people are aware.

Therefore, wind is actually not only paying for itself even. On top of it wind is also paying for carbon intensive turf as source for electricity production. In conclusion **wind energy is already delivering cheaper electricity prices, a feature which could very unlikely be expected when nuclear power would be started in Ireland.**

In the US. John Farrell, a senior researcher on the New Reliance Project at the Institute for Local Self-Reliance, puts it like that: [Cost, Not Japan Crisis, Should Scrub Nuclear Power](#)

(<http://www.renewableenergyworld.com/rea/news/print/article/2011/04/cost-not-japan-crisis-should-scrub-nuclear-power>)

Pöyry (<http://en.wikipedia.org/wiki/P%C3%B6yry>) (amongst others consulted by the SEAI and Eirgrid) concludes that **Consumers electricity prices reduced with wind energy** (<http://www.offshorewind.biz/2010/04/21/europe-consumers-electricity-prices-reduced-with-wind-energy/>)

"The report finds that in the studies reviewed by Pöyry, electricity prices were reduced by between €3 and €23/MWh (Megawatt hour) depending on the amount of **wind** power used," the organisation said in a statement.

"It has already been well-established that **wind** reduces CO2 emissions", EWEA chief executive Christian Kjaer commented. "But now we have stronger evidence than ever before that **wind** power also reduces electricity prices for consumers.

"The message is clear – if you want affordable CO2-free electricity, increase the amount of wind power in your electricity mix."

Pöyry's work is a comprehensive assessment of studies of the impact of **wind** energy on electricity prices, which according to EWEA, brings together the findings of case-studies in Germany, Denmark and Belgium for the first time.

The report concludes that the studies essentially draw similar conclusions that an increased penetration of **wind** power reduces wholesale spot prices, EWEA stated.

"**Wind** power replaces CO2-intensive production technologies, the report finds. The technology that sets the price on the wholesale market is usually hard coal. **Wind** replaces hard coal power plants during hours of low demand and gas fired power plants during hours of high demand in all the countries the report analysed."

But even Pöyry ignores the **dismantling costs** of nuclear power plants which can make **up to 25% of the overall capital costs**.

[Greifswald Nuclear Power Plant](#) in Germany caused hundreds of millions of financial damage due to an [accident](#) (http://www.sourcewatch.org/index.php?title=Nuclear_power_as_an_alternative_to_coal) in 1975. The decommission started 1995 and has still been going on since. Estimated **decommission costs €3-5 billion**, €2.5 billion spent until 2007 [*].

Dr. *Mark Cooper*, senior research fellow for economic analysis, Institute for Energy and the Environment at Vermont Law School, concludes [Nuclear Power Could Cost Trillions Over Renewables](#) (<http://www.vermontlaw.edu/Documents/Cooper%20Report%20on%20Nuclear%20Economics%20FINAL%5B1%5D.pdf>)

[[more](#)]

Despite of more than 50 years of nuclear energy production, the nuclear waste problem is unsolved - until present day !

[Dramatic increase in radiation found at German nuclear waste depot](#). (<http://www.dw-world.de/dw/article/0,,14990661,00.html>)The recovery of radioactive **waste** from that salt mine - which was declared "safe for hundreds of thousands of years" in the 1980s - is adding costs of estimated **€4-7 billion** to the German taxpayer. That does not include finding a new repository. More hidden subsidies. [[more](#)]

Nuclear power 'would cost too much'. (<http://www.independent.ie/national-news/nuclear-power-would-cost-too-much-esri-2630201.html>)ESRI has ruled out **nuclear** power for Ireland because it would cost too much and would not be acceptable to the public.

"**Nuclear** (power) will never be economic. The large size of standard plants makes them uneconomic and because onshore wind is already so successful, this will make investment in new **nuclear** plants uneconomic"

Carbon footprint nuclear

Nuclear power has more than 10 times the carbon footprint of wind energy (which means fossil fuels have to be burnt) and produces just about a third of the CO2 of a modern gas power stations (~350 g-CO2/kWh). [[more](#)] [[more](#)]

Generation 3 and 4

G3 reactors were promised to be more efficient, cheaper, more reliable and safer. Well, how far we can rely on this promises we can see in Finland. The Olkiluoto nuclear power plant was due to be in service in 2009. [Delays and cost overruns of more than €2.3 billion.](#)

(<http://green.blogs.nytimes.com/2009/09/02/more-delays-at-finnish-nuclear-plant/>)

The next-generation atomic plant being built France's Areva is unlikely to enter service [until 2014.](#) (www.politics.ie/forum/environment/157492-how-safe-european-nuclear-power-9.html#post4621362)

=> [In Finland, Nuclear Renaissance Runs Into Trouble](#) (New York Times, May 2009)

(<http://www.nytimes.com/2009/05/29/business/energy-environment/29nuke.html?pagewanted=all>)

G4 reactors (thorium, traveling-wave etc.) are still in laboratory stage and not commercially developed, science fiction. What strikes me the most is that they haven't abandoned the idea to take liquid sodium as coolant. If you ever have watched when sodium gets into contact with water you can imagine what happened if a reactor of this type has a leakage.

IAEA and WHO

In 1959 the World Health Organisation entered into an agreement with the International Atomic Energy Agency which gave the unequivocally pro-nuclear IAEA a veto over WHO research into the effects of radiation.

It is important to bear in mind that the IAEA is dedicated to fostering the spread of nuclear power. That commitment is at the very beginning of [its constitution.](#)

For fully half a century the WHO has been subservient to IAEA in matters of radiation and health. Under the WHO/IAEA Agreement (WHA12-40) of 28 May 1959, the IAEA has assumed a power of veto over WHO's activities. Similar "agreements" constrain other UN agencies. [[more](#)]

It is absolutely unacceptable that the world's nuclear lobby organisation, which has been caught with several cover-ups, has such a veto at the WHO!

=> [IAEA Knew Of Japan's Lax Reactor Safety In 90's, Were Unable To Do Anything](#)

=> [COVERUP OF FUKUSHIMA NUCLEAR DISASTER: IAEA Knew Reactors Had Melted Down ...Public Not Told for a Month and a Half](#)

=> ["They Lied To Us" Michio Kaku Blasts Japan, TEPCO & IAEA For Cover Up](#)

Childhood Cancer in the Vicinity of German Nuclear Power Plants

EVIDENCE FOR AN INFECTIVE CAUSE OF CHILDHOOD LEUKAEMIA: COMPARISON OF A SCOTTISH NEW TOWN WITH NUCLEAR REPROCESSING SITES IN BRITAIN

Chernobyl death toll: 985,000, mostly from cancer (published by the New York Academy of Sciences).

[[more](#)]

Compare to the [scientific consensus on anthropogenic global warming](#) (humanmade climate change) there is anything but a consensus in science about the impacts of nuclear radiation on living beings - not even concerning low level radiation!

(http://en.wikipedia.org/wiki/Scientific_opinion_on_climate_change)

The *Irish Sea* has been described by Greenpeace as the [most radioactively contaminated sea.](#)

(http://en.wikipedia.org/wiki/Irish_Sea)

Thanks to [Sellafield.](#) (<http://en.wikipedia.org/wiki/Sellafield>)

[Climate Change Could Create New Risks to Nuclear Reactor Safety](#) (Science Progress) (

<http://scienceprogress.org/2011/03/climate-change-could-create-new-risks-to-u-s-nuclear-reactor-safety/>)

=> [Nebraska nuclear reactor dry though surrounded by flood - Reuters](#)

=> [EDF to Rely on Seaside Reactors as Drought Cuts Water Levels - Bloomberg](#)

[[more](#)]

Fukushima

For more information on Fukushima please follow my posts at the Politics.ie thread, [Huge blast at nuclear power plant in Japan, SOE declared at second plant.](#) (SirCharles) (<http://www.politics.ie/forum/environment/155638-huge-blast-nuclear-power-plant-japan-soe-declared-second-plant.html>)

One more topic: [Italy](#) has opted out nuclear by referendum (over 94% of the electorate!). (http://en.wikipedia.org/wiki/Nuclear_power_in_Italy)

[Switzerland](#) is phasing out. (http://en.wikipedia.org/wiki/Anti-nuclear_movement_in_Switzerland)

[Germany](#) (http://en.wikipedia.org/wiki/Nuclear_power_in_Germany) wants to abandon nuclear energy completely within 11 years.

[3/4 of the French people](#) (<http://www.reuters.com/article/2011/07/08/france-nuclear-idUSLDE7670UN20110708>)

want their country to fully exit nuclear power. Also => [Can Business As Usual Continue? Accident Highlights Safety Concerns in France](#) (Spiegel Online, 13 Sep 2011). <http://www.spiegel.de/international/europe/0,1518,785922,00.html>

It's an old and risky technology.

More info ref. Renewable energy:
WeB FFI: Irish Press (scroll down)

FRACKING AND THE ENVIRONMENT - Fracking investigation finds toxic emissions at drill sites

By [Susan Lamb](#)

Pipe Dream News

Published: Monday, December 5, 2011

Updated: Tuesday, December 6, 2011 03:12

There is new evidence that hydraulic fracturing poses a threat to air quality.

The Chesapeake Bay Foundation (CBF), a non-profit organization dedicated to protecting the Chesapeake Bay, conducted an infrared video investigation this spring of air pollution emitting from 15 hydraulic fracturing sites in Pennsylvania, Maryland and West Virginia. The organization said it found emissions at 11 of the sites.

CBF said last week that it had sent the videos along with a letter, dated Nov. 29, to the U.S. Environmental Protection Agency (EPA). The letter laid out general and specific objections to how the EPA currently handles gas emissions and air pollution.

Hydraulic fracturing, also known as fracking, releases natural gas from subsurface rock formations by drilling into the ground and pumping water and chemicals down to fracture the bedrock and release the

gas. The Southern Tier sits on top of the Marcellus Shale, a formation of rock that stretches beneath several other nearby states that contains one of the country's largest deposits of natural gas.

Tom Pelton, senior writer and investigative reporter for CBF, said his organization undertook the study to attempt to find answers to ongoing debates about air pollution caused by fracking.

"We decided to do our own examination and decided it seemed quite common," Pelton said. "Methane emissions is quite a problem. We picked sites after we had become aware [that fracking causes air pollution] after a period of a couple years."

CBF looked at 15 fracking sites and compressor stations, which pressurize gas during transport from one location to another. 13 of the sites are located in Pennsylvania, one is in Maryland and one is in West Virginia.

The sites CBF surveyed are operated by EOG Resources, Inc., Williams Production Appalachia LLC Hollenbeck, Cabot Oil & Gas, Chesapeake Appalachia, LLC and Texas Eastern Transmission LP, among others.

The companies were not aware that their sites were being filmed, Pelton said.

"We picked sites that were accessible to public roads," Pelton said. "[We] didn't want to notify them in advance [because the companies might have] shut off emissions."

George Stark, director of external affairs of Cabot Oil & Gas, confirmed that the company was not aware that their sites were being filmed from public roads.

"No, I was not aware of the video," Stark said. "The [Pennsylvania Department of Environmental Protection] has done studies and determined there was no negative impact from methane emissions."

Pelton, accompanied by David Sawyer of Sawyer Infrared Inspection Services, Optical Gas Imaging, shot footage of the sites in May and June. They used both a standard video camera and a Flir GasFindIR infrared camera, designed to detect methane leaks and hydrocarbon gases.

CBF claims that the infrared equipment detected otherwise invisible gas emissions from 11 of the 15 sites.

Pelton said he believes that EPA needs to conduct another in-depth study into fracking's environmental impacts.

"[A] comprehensive study should be conducted and should be taken in account for EPA air regulations," Pelton said. "When written, those should be strong enough to stop leaks of methane from these sites."

Jon Mueller, vice president for litigation of CBF, called in the letter for tougher federal regulation of air pollution caused by fracking.

"A federal rule governing air pollution associated with natural gas hydraulic fracturing is greatly needed," Mueller wrote in the letter. "EPA has also failed to fully consider the impact of methane released from drilling and process equipment on human health and the environment."

When contacted for comment, the EPA released a statement via email.

"EPA is working to ensure that America's shale gas resources are developed responsibly so that public health and the environment are protected as the nation gains important economic and energy security benefits," the email stated.

The EPA declined to comment on the CBF letter or video footage.

Robert Howarth, professor of ecology and environmental biology at Cornell University, said he believes the CBF footage is important.

"During gas development, storage and transport to market, some of the gas is purposefully vented to atmosphere and some accidentally leaks," Howarth wrote in an email. "The footage from the Chesapeake

Bay Foundation does a great job of illustrating some of this venting and leakage, using a special 'FLIR' video camera to 'see' the methane in the natural gas, which is not visible to the naked eye."

Howarth said he believes the footage could be instrumental to stopping methane leaks at drilling sites.

"Methane is an incredibly potent greenhouse gas, so this leakage is important," Howarth stated. "Our research indicates that methane makes up more than 40 percent of the entire greenhouse gas inventory for the U.S. ... We really need to get this methane leakage under control, if we are to seriously address global warming."

New York State does not currently allow fracking while the state's Department of Environmental Conservation (DEC) completes a review process of the environmental impacts of fracking and proposed regulations. Fracking may get underway in New York as early as next year, however.

Brendan Woodruff, campaign organizer for the BU chapter of New York Public Interest Research Group, said he believes the CBF video provides evidence that proposed regulations for fracking in New York State are insufficient.

"This [CBF] video clearly demonstrates that hydrofracking creates significant amounts of air pollution and underscores how woefully inadequate DEC's review of this activity is since they do not feel the need to analyze how these emissions would impact public health," Woodruff wrote in an email.

The CBF video footage is available on the organization's YouTube channel, ChesapeakeBayFound, under the title "Drilling Air Pollution."

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