

No.3 of the Listowel Town Development Plan

2009-2015

A Chara,

As a resident of Kenny Heights, I am totally opposed to any residential development or development of any sort to the field(Tobins)

at the rear of the estate. I live at the back of the estate facing the green area. Kenny Heights is a mature estate and as it is, the traffic going through the estate is heavy enough. Any further traffic would cause serious problems and be devastating. There are numerous children in the estate who cycle and play freely in the estate. Their safety is paramount and would be a major concern. I personally would fear for my child's safety if the volume of traffic was increased. There would also be serious implications with noise, pollution and the quality of life in the estate. Furthermore I have a big mortgage and I don't want my house devalued. Safety, security, noise and pollution are my major concerns.

Is mise le meas

Norma Ní Scanláin.



Tionól Réigiúnach an Deiscirt

Teach an Tionóil, Sráid Uí Chonaill, Pórt Láirge, Éire. X91 K256



Southern Regional Assembly

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Senior Planner, Planning Department, Kerry County Council, County Buildings, Rathass, Tralee.

13th December 2019

RE: Proposed Variation No 3 of the Listowel Town Development Plan 2009-2015 and Draft Listowel MD LAP 2019-2025.

A Chara,

Further to your correspondence of 29TH October 2019, the Southern Regional Assembly (SRA) sets out below its observations on Proposed Variation No.3 of the Listowel Town Development Plan 2009-2015 (LTDP 2009-2015), in accordance with Section 27C of the Planning and Development Act 2000 (as amended).

An observation is also made on the Draft Listowel Municipal District Local Area Plan 2019-2025.

Policy and Legislative Context for Observations of the SRA

The proposed Variation No. 3 has been reviewed, relative to the South West Regional Planning Guidelines (SW RPGs) 2010-2022. It should be noted that the SW RPGs 2010-2022 remain in force until such time as a Regional Spatial and Economic Strategy has been made by the Regional Assembly.

Purpose of the Proposed Variation

Further to previously adopted Variation No. 2 which integrated the population allocation and housing land requirements for Listowel Town as contained in the Core Strategy of the Kerry County Development Plan 2015-2021, the SRA note the following amendments are now required through proposed Variation No 3 including:

- Reference to Project Ireland 2040 (the NPF)
- Update the zoning strategy for the town (consistent definitions with My Plan, General Zone Types, classifications).
- Refer to projects, policy and objectives applicable to Listowel Town from the Local Economic Community Plan 2016, Heritage and Community Led Regeneration Strategy 2017 and the Kerry Tourism Strategy 2016.
- Refer to Flood Risk Management Guidelines.

The purpose, scope and text of the proposed variation as outlined in the Council's report published with the variation is noted.

The SRA note the amendments provide strengthened policy support for sustainable higher densities, facilitate compact growth targets aligned with the National Policy Objectives of the NPF, seek renewal

of vacant brownfield sites, seek regeneration of opportunity sites, support master plans and site briefs to guide regeneration of key sites, vacant site level, seek retail regeneration, facilitate social housing, elderly accommodation and community services.

The SRA also note strengthened support to encourage the regeneration and development of the existing built up areas and set a sustainable framework for the mixed-use development of undeveloped areas in the town boundary and strengthened support for delivery of key infrastructure projects (including by-pass), implementation of the flood relief scheme and the Tralee-Listowel-Abbeyfeale Greeway.

Consistency with the SW RPGs 2010-2022

Proposed Variation No. 3 is considered to be consistent with the Core Strategy and Settlement Hierarchy of the KCDP 2015-2021 by integrating the population and housing requirements into the LTDP 2009-2015.

The proposed amendments are consistent with Core Strategy Objective CS-8 of the KCDP 2015-2021 which seeks to facilitate sustainable development in the towns and villages of the County, of a nature that supports their defined role at County and Regional level, at a scale appropriate to the availability of supporting infrastructure.

In this regard, proposed Variation No 3 is in accordance with the SW RPGs 2010-2022 as far as it is practicable, with particular regard to Regional Settlement Strategy Objective RSS-06 Settlements in the Northern Area, which is the designated area for Listowel, which seeks the following:

"It is an objective that these towns act as vibrant centres for employment and services within their catchment areas. The urban fabric of the settlements will need to be strengthened and greater links forged with their surrounding hinterlands. Any population growth will be distributed in a manner so that there is a balance between the town and the villages/rural areas. Controls should be introduced for rural areas under pressure from urban generated housing".

Variation No 3 in the Context of the Regional Spatial and Economic Strategy (RSES) for the Southern Region.

At the assembly meeting of 29th November 2019, the members of the assembly approved the Directors Report on Material Amendments and passed a resolution that the RSES is made on the 31st January 2020.

The purpose of the RSES is to support the implementation of the National Planning Framework (Ireland 2040 Our Plan) and the economic policies and objectives of the Government by providing a long-term strategic planning and economic framework for the development of the region over a period of between 12 years and 20 years.

The proposed variation is considered to be consistent as far practicable with content of the RSES and Regional Planning Objectives (RPOs) including:

- Support for strengthened vitality and infrastructure investment in our region's towns (Section 3.6 and RPO 24).
- Support for the strategic sub regional economic role of Listowel in the context of urban networks that support the combined economic assets and strengths of Listowel, North Kerry, West Limerick and the Shannon Estuary (Section 3.8 and RPOs 26 and 27).
- Support for quality place making, regeneration and compact growth (RPOs 28, 31 and 32).
- Support for the Atlantic Economic Corridor (RPO 39).
- Support for tourism (RPO 51)
- Place making for enterprise development (Section 4.7).
- Climate action and adaptation (Section 5 and decarbonisation RPOs).
- Biodiversity (RPO 120)

- Flood risk mitigation (RPOs 108-113)
- Sustainable Mobility (RPO 155)
- Investment in road infrastructure projects (RPO 159 includes the Listowel Bypass)
- Infrastructure led planning (RPO 167)
- Arts, Heritage and Culture (RPO 186)
- Support for Greenway Corridors (RPO 193)
- Revitalisation of historic cores (RPO 195)
- Architectural Heritage (RPO 198).

The proposed variation is also consistent with the National Planning Framework, including National Policy Objective 3c to deliver at least 30% of all new homes that are targeted in settlements within their existing built up footprints, Section 4.3 planning for Ireland's Urban Growth and National Strategic Outcome 1 Compact Growth.

Listowel Municipal District Local Area Plan

The SRA considers the Draft Listowel Municipal District Local Area Plan has been prepared with a strong evidence base with a clear plan structure and demonstrates a consistency as far as it is practicable with existing national, regional planning policy and emerging objectives of the RSES as outlined above in our observations on the Listowel Town Development Plan. This LAP may need to be reviewed again in the context of the new County Development Plan when the Regional Spatial & Economic Strategy for the Southern Region is made on the 31st January 2020.

Conclusion

It is considered Proposed Variation No. 3 is consistent with the SW RPG's 2010-2022 and relevant national policy as far as it is practicable by promoting the growth of Listowel Town in a sustainable and consolidated manner, consistent with Regional Settlement Strategy Objective RSS-06 for Settlements in the Northern Area.

The proposed variation is consistent with the NPF and is consistent with objectives under the RSES.

The SRA considers the Draft Listowel Municipal District Local Area Plan demonstrates a consistency as far as it is practicable with existing national and regional planning policy and objectives of the RSES. This LAP may need to be reviewed again in the context of the new County Development Plan when the Regional Spatial & Economic Strategy for the Southern Region is made on the 31st January 2020.

Mise le meas

David Kelly

Director Southern Regional Assembly

Re. Draft Listowel Municipal District Local Area Plan

To whom it concerns,

We write to you with regard to the possible rezoning of Tobin's land; agricultural fields that are adjacent to Kenny Heights. These are directly opposite from my own home in Kenny Heights.

We wish to register our strongest objections to this proposal.

I believe that the proposal will infringe on our home life in a number of unacceptable ways.

We bought our house believing Kenny Heights to be complete. The reopening of a building site, complete with the great volumes of traffic, daily noise, and environmental disruptions to water, air and landscape adjacent to our home, will make life extremely unpleasant. This is aggravated significantly by the fact that all such building traffic will by necessity seek use of the Cul de Sac populated currently by just two homes. This is a horrific prospect.

The volume of traffic at the present time on the Tim Kennelly Roundabout on the N69 is already dangerously busy. We face the prospect of this link being the main entry to the new Listowel Bypass. The idea of adding further traffic to it by bringing lands at the bottom of Kenny Heights into domestic housing use is dangerous.

We further object to the volume of housing implied by such a proposal. The site is very small, has a very steep gradient, and would undoubtedly necessitate significant landfill of the existing "V" shaped stream valley. This would further cause huge environmental havoc; The water pollution caused by dumping endless tonnes of earth, rock and stone would cause distraction to the surrounding ecosystem, particularly due to mineral run off of deposited materials.

We object to the possibility that the green area of our estate will be cut through by the eventual necessity to connect the new residential lands to the main sewerage, electrical and road networks. We are already limited by the poor drainage of our green spaces, not to mind the idea of reducing their volume. This proposal, being posited without any local consultation with residents by the land owner, is extremely objectionable.

Listowel is a beautiful town, with very high housing standard estates; each increasingly entering a mature environmental state. This has been annually commended in Tidy Town awards. Kenny Heights is just such an area. Residents are very proud of the huge efforts made by committees and the council to beautify them.

Building and construction works and associated traffic would create interruption and ugly pollution. It would see building spoilage on a large scale. It would result in waste littering our estate's main artery. It would leave stone, earth, refuse and materials on our roads and paths. It would be extremely unsightly. This is a retrograde step. We should be developing housing far from the river valley, not infringing further into the crucial floodplain.

We ask you to take into account the quality of life of residents by rejecting the proposal to rezone Tobin's Land. We ask you to protect the quite residential area that Kenny Heights has become. We plead with you to leave our estate intact; to help our estate's environment and peace. We ask you to conceive of better ways of planning residential developments, and to finally guard ferociously the integrity of the Feale River hinterlands and valley ecosystem.

Kindest regards,

Stephen & Gerardine Behan



Listowel,

Co. Kerry

To: Senior Planner,

Planning Policy Unit,

Planning Dept.,

Kerry County Council,

County Buildings,

Rathass,

Tralee,

Co. Kerry

Date: 12/12/2019

Re: Submission on the Draft Listowel Municipal LAP - Lixnaw

Dear Sir/Madam

I am writing to draw your attention to the non-inclusion in the Settlement Boundary of my land to the West of the existing Kilcaragh Development. I submit to you that this land should be included for further development on the following basis.

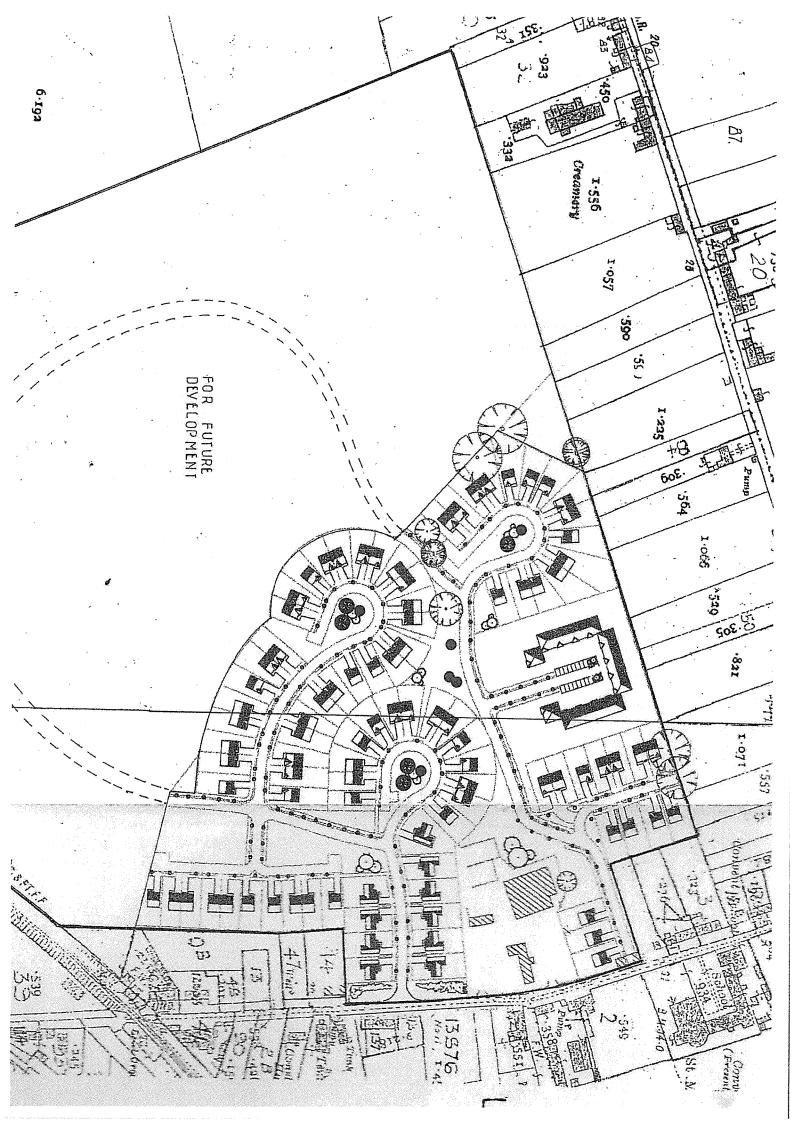
- When I first sought planning on my land in Lixnaw village in 2002, it was Kerry County Council planning dept that looked for the lay-out that had two entrances and the relevant provision of services so as all the land could be built on as it was in the core of the village and this was done.
- The Kilcaragh Development was successfully completed and taken in charge by the council and has proven to be an attractive location for residents. By including this land in the Settlement Boundary you would be meeting the stated objectives of the Draft plan to 'Encourage the development of a compact and sustainable village structure by ensuring that new development is contiguous with existing development and making effective use of back land'.
- It states in the Draft Plan that the population of Lixnaw only marginally increased from 2011-2016 when in fact it had one of the highest increases in the county of 9.8%. As like most of the country, due to the low level of building over the past 10 years there is now an accumulating requirement for a greater number of houses to be built in the village, more than what the Draft Plan is proposing.

In conclusion I firmly believe that the inclusion of these lands will have immediate and long-term positive benefits for a sustainable village structure in the core of Lixnaw.

Also attached is the original planning application map referred to above.

Yours sincerely

Don Mc Namara



Dear Sir/Madam,

As the owner along with my wife Siobhan of Cahirdown Listowel then i am putting this mail together to object to this proposed development through our beautiful estate.

I strongly object to these plans for the below reasons:

Guaranteed extra traffic and potential congestion through the estate

The estate will no longer be a safe haven for kids to play in

The price of my Property will decrease dramatically

Kenny Heights will just become "another housing estate" overnight if this goes ahead

Huge Potential for undesirable individuals "wandering" through our estate

The green areas that currently exist will be wiped out or dramatically reduced in size and stature

Personally i would be disgusted if this got the go-ahead.

Kind Regards,

John & Siobhan Kennelly

43

Kerry Co Council,
Aras an Chontae,
Tralee.
11.12/2019

Ref: Draft local area plan for Ballylongford.

RECEIVED

1 2 DEC 2019

PLANNING AUTHORITY
REC'D IN POST

A Chara,

At a recent meeting of the Ballylongford Enterprise Association the draft area plan was discussed and a number of issues were raised.

- The settlement boundary as outlined in the plan does not accurately reflect the size and layout of the village. A large percentage of the strategic residential reserve is inaccessible and also a part of that is too low lying to allow access to the main sewer. We believe that;
 - a. The area described as Rusheen should be joined up with the village and it is not acceptable to have a village divided into two parts.
 - b. The settlement boundary on Well Street should be extended out as highlighted on the attached plan. There are 19 dwellings with mains water and sewer connections, public footpaths and public lighting that must be included.
 - c. The boundary on the road out to the landbank is also too short and should be extended to cater for future development of the landbank.
 - d. The settlement boundary does not take into account the flooding problem that we have in the centre of the village which may make this area unsuitable for development.
- 2. We would like the council to develop a walking/heritage trail from Ballylongford village to Carrig Island, as this is part of the Wild Atlantic way. A walkway around Carrig Island itself should also be developed. This is very important in order to develop tourism in this area.
- 3. You have mentioned the landbank between Ballylongford and Tarbert as a source of employment in the future, yet Kerry Co Council have not shown any support for the proposed developments out there. An aquaculture licence was granted for bottom culture mussel farming by the dept of fisheries, in Ballylongford bay which could cause difficulties for future development of the landbank. This issue was raised when Shannon Development were in charge of the landbank.

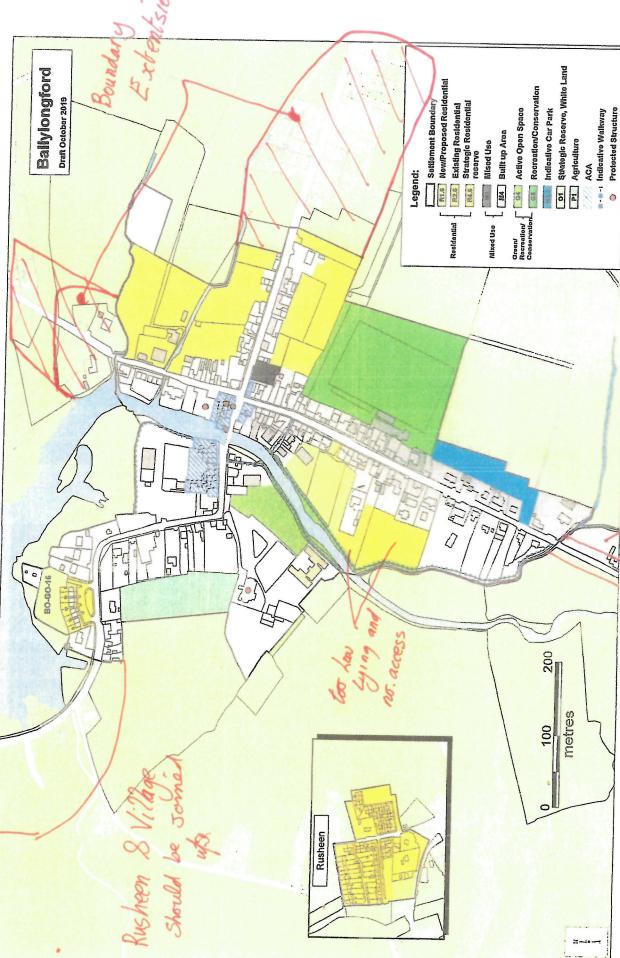
- 4. One of the most contentious issues in Ballylongford are the wind turbines and they are not even mentioned in your plan.
- 5. With some research we believe that Ballylongford can be connected to the greenway and cycle ways in Listowel via existing bog roads and we ask the council to look into this.
- 6. In relation to community facilities we would ask the council to consult with St Brendan's trust about developing a playground in the church grounds, as outlined on page 79 of the plan.
- 7. On page 81 you suggest that pedestrian safety on the bridge in the centre of the village should be improved. In a report carried out by the council nearly 20 years ago this was also mentioned. What is the realistic possibility of anything actually happening here to resolve this?

We would ask you to take these issues into account when you are finalising your plan.

Yours Since	rely,	

Noel Lynch, Chairman, Ballylongford Enterprise Ass.

Tel: Email; (mail line) en au mau con



Senior Planner,
Planning Policy Unit,
Planning Department,
Kerry County Council,
County Buildings,
Rathass,
Tralee.

Dear Sir/Madam,

We would like to make a submission to the proposed variation 3 of Listowel Town Development Plan 2009-2015 in relation to the rezoning of Tobin's field as noted in Listowel Town Zoning map. We object to this proposed rezoning of Tobin's field for residential development on a number of grounds

- 1. Access and entrance to a proposed/possible new housing development on the site. The proposed development would need to be accessed through our existing housing estate of Kenny Heights. This would in turn majorly increase traffic flow on our current busy road into the estate. The safety of all current residents would be affected. There will only be one access route in and out of the estate which could prove a safety hazard.
- 2. Currently access at the Tim Kennelly roundabout onto N69 from Kenny Heights is dangerous. With traffic approaching from N69 Tarbert side of Listowel town at speed it is difficult to enter and exit the estate at busy times of the day. Increasing the traffic entering/exiting the estate would further compound this issue.
- 3. Possible damage or reduction to the green area at the back of the Kenny Heights housing estate in front of Tobin's field, which is an invaluable resource to the residents of Kenny Heights. Allowing space for physical activity for all ages, community social events, community gardening projects and dog walking.
- 4. Development at the proposed site would be detrimental to the biodiversity of Kenny Heights green area and the associated green space and woodlands. It may also cause the spread of harmful invasive plants, i.e. Japanese knotweed and Himalayan balsam, which are currently present along the banks of the river Feale.
- 5. The extent of the impact to the residents of Kenny Heights of the development of the North Kerry Greenway is not known. This may lead to an increase in people accessing the estate and cars being parked within the estate by people accessing the Greenway. The Greenway is a major development project for Listowel Town, an entrance to this is proposed to be at the front of Kenny Heights estate. To further develop this condensed area by the proposed rezoning of Tobin's field would lastingly change the quality of life for the current residents.

We, as current residents of Kenny Heights, submit that the rezoning of Tobin's field would neither be suitable nor logical. Listowel Town would not be enhanced by a possible development at the site. We respectfully request that the Planning Authority consider this submission for the reasons outlined above.

Yours Sincerely,

Susan O' Carroll
Padraig Thornton



Safety Before LNG Protecting the Shannon Estuary and its people



Telephone: + Email: soft by the State of the

Draft Listowel Municipal District Local Area Plan 2019-2025 Consultation Planning Policy Unit, Planning Department, Kerry County Council, County Buildings, Rathass, Tralee-planpolicy@kerrycoco.ie

Submission against any promotion of the Shannon LNG project plan to import US Fracked Gas into Europe on a massive scale, in a high-level plan, with no assessment of reasonable alternatives as obliged under the SEA Directive.

12th December 2019

Executive Summary

Shannon LNG is promoted in this Draft Plan in a misleading way, with assertions that it would bring 650 construction jobs (when the actual original initial figure provided by the developer was 350) and claims that planning permission has been secured for the construction of an LNG regasification terminal (when in fact the planning permission has expired¹, as has the planning permission for the proposed 26-kilometre gas pipeline from Tarbert to Foynes).

The Company has already begun the first stage of a new planning application for a different type of development called a Floating Storage Regasification Unit, which would not be anything like the original plans.²

More importantly, mention of Shannon LNG in a Local Area Plan without any Strategic Environmental Assessment of fracked gas in the Irish Energy mix or of reasonable alternatives can only be considered immature and may even be interpreted as an attempt to politically influence a possible future planning decision on the matter.

It is inconceivable that a document that is supposed to be assessing planning from a strategic perspective would be giving such a prominent and solely positive position to a highly-controversial and speculative energy development which would have such far reaching negative climate impacts without any assessment of reasonable alternatives as is obliged under the SEA Directive. This also runs counter to all Climate Mitigation obligations under the Climate Act and the Paris Accord.

Two main issues will now be discussed which are not dealt with at all in any of the local authority documentation we have studied to date:

- That the consequences of importing Fracked US Gas by Shannon LNG is a race to the bottom, with a carbon footprint 44% greater than coal, and
- Evidence that the Shannon LNG Terminal is planned for the importation of Fracked US gas.

The Consequences of mporting Fracked US Gas by Shannon LNG is a Race to the bottom with a carbon footprint 44% greater than coal.

To give context to the importance of assessing energy alternatives as opposed to promoting the interests of the Shannon LNG project in a high-level document, it must be acknowledged that the Shannon LNG project is one element of a European Commission Energy Plan for the importation of fracked gas from the US into the EU on a massive scale³ following agreement between President Trump and President Juncker on July 25th 2018.⁴

There has been no distinction made between fracked gas projects and non-fracked gas projects in the Irish Energy mix even though the non-territorial emissions and carbon leakage from importing US fracked gas into Europe especially is accelerating global warming more than conventional gas.

http://www.safetybeforelng.ie/pressreleases/pressrelease20190215HighCourtRulesOnExtensionOfShannonLNGPlanning.html

² http://pleanala.ie/casenum/304007.htm

³ https://ec.europa.eu/commission/presscorner/detail/en/IP 19 2313

⁴ Joint U.S.-EU Statement following President Juncker's visit to the White House Washington, 25 July 2018 (https://ec.europa.eu/commission/presscorner/detail/en/STATEMENT 18 4687) and https://www.youtube.com/watch?v=fictD aPhXg&t=189s

Giving special witness testimony to the Irish Parliament Committee on Climate Action on October 9th, 2019⁵ world-renowned expert on the global methane cycle, New York's Cornell University Professor, Rowert W. Howarth, stated that "if Ireland were to import LNG from the United States, it would largely be shale gas". He said that "Methane is an incredibly powerful greenhouse gas, more than 100 times more powerful than carbon dioxide compared gram to gram". His latest peer-reviewed research has found that "shale gas development in North America is the single largest driver of this increase in methane, accounting for one-third of the increase in global emissions from all sources". He went on to "estimate that the use of shale gas imported as LNG to Ireland, would create greenhouse gas emissions of 156g CO2-equivalents per MJ, or a foot-print 44% greater than that of coal".

He very eloquently urged Ireland to prohibit the importation of fracked shale gas from the United States.

In oral testimony, Professor Howarth explained that "if we do not reduce methane emissions, the Earth will shoot through the 2 degree Celsius mark within the next 20 to 30 years, with devastating consequences".

Professor Barry McMullin of Dublin City University, also giving expert testimony, speaking of the potential impact of reducing methane emissions rapidly, told the Climate Committee that "the big win from such a reduction would be that it buys us more time. Methane is faster acting, which means that an effective reduction in methane emissions in the short term would buy us some desperately needed time to do this complete reconstruction of our energy system".

Professor McMullin had the following to say about non-territorial emissions:

"It is a complicated question obviously, the territorial responsibility under the existing [United Nations Framework Convention on Climate Change] UNFCCC processes and the Paris Agreement. It is territorial so nations are responsible for emissions within their own territory. The upstream emissions I have talked about arising from our use of fracked gas would be in the territory of the United States primarily. Under the current arrangements, that then means we delegate responsibility for that to the US. But, if they withdraw from the Agreement all bets are off and we definitely have to look at our own responsibility much more closely."

Reacting to Professor McMullin's comment, Professor Howarth agreed, He explained:

"I agree with my colleague. Reduced methane emissions can slow the rate of global warming more quickly than reduced emissions of carbon dioxide, where there is a lag of several decades due to uptake, and release by the oceans. If we are serious about trying to minimise the risk of major thresholds in the climate system and irreversible runaway global warming, we need to try to keep the increase will below 2 degrees celsius. We do not have until 2050 to do that. We need to start moving that way now. It absolutely requires reducing methane emissions. I do not buy the idea of natural gas as a bridge or transitional fuel at all".

Julia Walsh, from 'Frack Action' travelled over from the New York, where fracking is now banned, to tell the Committee that

"If Ireland imports fracked gas at the Shannon LNG terminal, it will be locking itself into more than a decade of complicity in harming the people and children of Pennsylvania. In recent

⁵ Oireachtas Joint Committee on Climate Action Debate, Wed October 9th, 2019: https://www.oireachtas.ie/en/debates/debate/joint committee on climate action/2019-10-09/2/

months, the 'Pittsburgh Post-Gazette' has investigated and found at least 67 diagnoses of cancers, some of which are exteremely rare, in children in just four rural, heavily fracked counties of the state. Health professionals are alarmed by this. As I previously stated, there are now more than 1,500 scientific studies and reports in the United States which overwhelmingly show the harm caused by fracking".

Doctor Paul Deane of the MaREI Centre at University College Cork said that

"Ireland could sustain an interruption period of up to ten months without the need for LNG infrastructure".

Doctor Deane said:

"In essence, the question is whether we need LNG. From the detailed modelling we have undertaken in UCC, it is not entirely obvious that LNG infrastructure will be required in Ireland. We have modelled in detail supply interruptions coming from Russia and independently coming from Norway and north Africa. The lights have remained on in Ireland in all our simulations, which points to the fact that LNG infrastructure may not be required within Ireland".

He also pointed out that

"we are very lucky to have a resilient gas infrastructure and the recent twinning of the gas pipes coming from Scotland to Ireland has increased that resilience even further".

Doctor Deane also agreed with Professor McMullin that

"much of our gas is used to provide electricity, while the addition of the electricity interconnector between Ireland and France [...] will further reduce Ireland's need for imported gas".

Eddie Mitchell of 'Love Letrim', whose campaigning, along with that of scores of other environmental groups, helped bring in the Fracking Ban in Ireland in 2017 had strong words for locals supporting the project in the hope of jobs and economic development in the region when he told the Committee:

"I would be very angry if I was a member of that community because people have been wasting their time for the past couple of years after we banned fracking. The general public did not know this was fracked gas but plenty of people did. This should have been more transparent. People should have understood that it was fracked gas. An alternative project could have been found for that site by now, something that could have contributed to the community, which needs jobs. People have been wasting that community's time".

The Science has now spoken categorically on the consequences of putting Trade over climate by importing filthy fracked gas into Europe from the US. To allow mention of a US Fracked Gas import terminal on the Draft Local Area Plan without any consideration of the carbon leakage from non-territorial emissions over the full cycle from production to consumption is discriminatory. It discriminates against even the other conventional gas projects in Ireland such as Corrib and gas via the two independent gas interconnectors, not to mention discriminating against the renewable energy sector. That is why an SEA that objectively assesses reasonable alternatives to fracked gas in the Irish Energy mix is needed before any single energy company can be given prominence in even a local Area Plan such as this one. At the very least, all mention of Shannon LNG should be removed from the Local Area Plan if its consequences are not going to be assessed thoroughly.

Evidence that the Shannon LNG Terminal is for the importation of US Fracked Gas

Introduction

Shannon LNG is being proposed as an LNG Import Terminal by its owners, New Fortress Energy, to receive fracked gas from the one of the world's largest natural gas fields, the Marcellus Shale Formation in Pennsylvania, U.S.A. However, comments by politicians and some individuals from public organisations that the sources of gas for the proposed Shannon LNG terminal have not been specified yet are attempting to cast doubt over this fact. We calculate that almost 100% of the Gas in Pennsylvania is fracked gas since so-called *conventional* wells are also being drilled in shale and also need to be fracked. However, even if we take the more conservative approach of only *unconventional* wells being fracked, then it is still proven from official US figures that up to 97.85% of gas in Pennsylvania is fracked gas. This paper puts forward the evidence that Shannon LNG is a US fracked gas import project. This evidence comes from the following sources:

- 1. From the Company itself and it's company filings to the US Securities and Exchange Commission (SEC) on November 9th, 2018 where
 - New Fortress Energy tells the SEC that "Certain of our suppliers employ hydraulic fracturing techniques"
 - New Fortress Energy tells the SEC "Increased regulation or difficulty in permitting of hydraulic fracturing, and any corresponding increase in domestic natural gas prices, could materially adversely affect demand for LNG and our ability to develop commercially viable LNG facilities"
 - New Fortress Energy admits to the SEC that it "seeks to use "stranded" natural gas to satisfy the world's large and growing power needs"[...] "We are currently developing two liquefiers in the Marcellus area of Pennsylvania, each of which is expected to have the capacity to produce approximately 3 to 4 million gallons of LNG"
 - New Fortress Energy tells the SEC "Shannon, Ireland We have entered into an agreement to purchase all of the ownership interests in a project company that owns the rights to develop and operate an LNG terminal and a CHP plant on the Shannon Estuary near Ballylongford, Ireland [...] We intend to supply all existing and future customers with LNG produced primarily at our own Liquefaction Facilities. We have one operational liquefaction facility in Miami, are currently are currently developing our Pennsylvania Facilities and plan to develop five to ten additional liquefaction facilities over the next five years"
- 2. From the Pennsylvania Department of Environmental Protection (DEP) 98.23% of Gas produced in Pennsylvania in 2018 was fracked gas
- 3. From the US Energy Information Administration (EIA) at least 97.85% of Gas produced in Pennsylvania in 2018 was fracked gas
- 4. From the Methane Life Cycle Scientist Professor Robert Howarth, Cornell University who informed the Oireachtas Joint Committee on Climate Action on October 9th 2019 that "If Ireland were to import liquefied natural gas from the United States, it would largely be shale gas"
- From Richard Bruton, T.D., the Minister for Communications, Climate Action and Environment himself who admitted on RTE Radio on May 10th 2019 that the gas coming from the US would be fracked gas
- 6. From Business and Investment Media Reports on the Issue
- 7. From Industry Analysis on the Issue
- 8. From U.S. President Donald Trump on 23rd October 2019 who stated at the 9th Annual Shale Insight Conference in Pittsburgh, Pennsylvania " they won't do any fracking in New York [...] They don't do it in New York. Somebody, someday, will explain why. They do it in Pennsylvania. They do it in Ohio."

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Eddie Mitchell of 'Love Letrim', whose campaigning, along with that of scores of other environmental groups, helped bring in the Fracking Ban in Ireland in 2017 had strong words for locals supporting the project in the hope of jobs and economic development in the region when he told the Committee:

"I would be very angry if I was a member of that community because people have been wasting their time for the past couple of years after we banned fracking. The general public did not know this was fracked gas but plenty of people did. This should have been more transparent. People should have understood that it was fracked gas. An alternative project could have been found for that site by now, something that could have contributed to the community, which needs jobs. People have been wasting that community's time".

The Science has now spoken categorically on the consequences of putting Trade over climate by importing filthy fracked gas into Europe from the US. To allow mention of a US Fracked Gas import terminal on the Draft Local Area Plan without any consideration of the carbon leakage from non-territorial emissions over the full cycle from production to consumption is discriminatory. It discriminates against even the other conventional gas projects in Ireland such as Corrib and gas via the two independent gas interconnectors, not to mention discriminating against the renewable energy sector. That is why an SEA that objectively assesses reasonable alternatives to fracked gas in the Irish Energy mix is needed before any single energy company can be given prominence in even a local Area Plan such as this one. At the very least, all mention of Shannon LNG should be removed from the Local Area Plan if its consequences are not going to be assessed thoroughly.

Evidence that the Shannon LNG Terminal is for the importation of US Fracked Gas

Introduction

Shannon LNG is being proposed as an LNG Import Terminal by its owners, New Fortress Energy, to receive fracked gas from the one of the world's largest natural gas fields, the Marcellus Shale Formation in Pennsylvania, U.S.A. However, comments by politicians and some individuals from public organisations that the sources of gas for the proposed Shannon LNG terminal have not been specified yet are attempting to cast doubt over this fact. We calculate that almost 100% of the Gas in Pennsylvania is fracked gas since so-called *conventional* wells are also being drilled in shale and also need to be fracked. However, even if we take the more conservative approach of only *unconventional* wells being fracked, then it is still proven from official US figures that up to 97.85% of gas in Pennsylvania is fracked gas. This paper puts forward the evidence that Shannon LNG is a US fracked gas import project. This evidence comes from the following sources:

- 1. From the Company itself and it's company filings to the US Securities and Exchange Commission (SEC) on November 9th, 2018 where
 - New Fortress Energy tells the SEC that "Certain of our suppliers employ hydraulic fracturing techniques"
 - New Fortress Energy tells the SEC "Increased regulation or difficulty in permitting of hydraulic fracturing, and any corresponding increase in domestic natural gas prices, could materially adversely affect demand for LNG and our ability to develop commercially viable LNG facilities"
 - New Fortress Energy admits to the SEC that it "seeks to use "stranded" natural gas to satisfy the world's large and growing power needs"[...] "We are currently developing two liquefiers in the Marcellus area of Pennsylvania, each of which is expected to have the capacity to produce approximately 3 to 4 million gallons of LNG"
 - New Fortress Energy tells the SEC "Shannon, Ireland We have entered into an agreement to purchase all of the ownership interests in a project company that owns the rights to develop and operate an LNG terminal and a CHP plant on the Shannon Estuary near Ballylongford, Ireland [...]
 We intend to supply all existing and future customers with LNG produced primarily at our own Liquefaction Facilities. We have one operational liquefaction facility in Miami, are currently are currently developing our Pennsylvania Facilities and plan to develop five to ten additional liquefaction facilities over the next five years"
- 2. From the Pennsylvania Department of Environmental Protection (DEP) 98.23% of Gas produced in Pennsylvania in 2018 was fracked gas
- 3. From the US Energy Information Administration (EIA) at least 97.85% of Gas produced in Pennsylvania in 2018 was fracked gas
- 4. From the Methane Life Cycle Scientist Professor Robert Howarth, Cornell University who informed the Oireachtas Joint Committee on Climate Action on October 9th 2019 that "If Ireland were to import liquefied natural gas from the United States, it would largely be shale gas"
- 5. From Richard Bruton, T.D., the Minister for Communications, Climate Action and Environment himself who admitted on RTE Radio on May 10th 2019 that the gas coming from the US would be fracked gas
- 6. From Business and Investment Media Reports on the Issue
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- 8. From U.S. President Donald Trump on 23rd October 2019 who stated at the 9th Annual Shale Insight Conference in Pittsburgh, Pennsylvania " they won't do any fracking in New York [...] They don't do it in New York. Somebody, someday, will explain why. They do it in Pennsylvania. They do it in Ohio."

months, the 'Pittsburgh Post-Gazette' has investigated and found at least 67 diagnoses of cancers, some of which are exteremely rare, in children in just four rural, heavily fracked counties of the state. Health professionals are alarmed by this. As I previously stated, there are now more than 1,500 scientific studies and reports in the United States which overwhelmingly show the harm caused by fracking".

Doctor Paul Deane of the MaREI Centre at University College Cork said that

"Ireland could sustain an interruption period of up to ten months without the need for LNG infrastructure".

Doctor Deane said:

"In essence, the question is whether we need LNG. From the detailed modelling we have undertaken in UCC, it is not entirely obvious that LNG infrastructure will be required in Ireland. We have modelled in detail supply interruptions coming from Russia and independently coming from Norway and north Africa. The lights have remained on in Ireland in all our simulations, which points to the fact that LNG infrastructure may not be required within Ireland".

He also pointed out that

"we are very lucky to have a resilient gas infrastructure and the recent twinning of the gas pipes coming from Scotland to Ireland has increased that resilience even further".

Doctor Deane also agreed with Professor McMullin that

"much of our gas is used to provide electricity, while the addition of the electricity interconnector between Ireland and France [...] will further reduce Ireland's need for imported gas".

Eddie Mitchell of 'Love Letrim', whose campaigning, along with that of scores of other environmental groups, helped bring in the Fracking Ban in Ireland in 2017 had strong words for locals supporting the project in the hope of jobs and economic development in the region when he told the Committee:

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 We intend to supply all existing and future customers with LNG produced primarily at our own Liquefaction Facilities. We have one operational liquefaction facility in Miami, are currently are currently developing our Pennsylvania Facilities and plan to develop five to ten additional liquefaction facilities over the next five years"
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Detailed Evidence

1. From the Company itself and it's company filings to the US Securities and Exchange Commission (SEC):

- We know from the corporation New Fortress Energy seeking to build the 'Shannon LNG' terminal that the gas is from fracking in Pennsylvania because they said that to their investors and in their filing to the US Securities and Exchange Commission. See their direct quotes from their SEC filing here ¹:
 - o New Fortress Energy LLC Filing at the US Securities and Exchange Commission on November 9, 2018 "Hydraulic Fracturing. Certain of our suppliers employ hydraulic fracturing techniques to stimulate natural gas production from unconventional geological formations (including shale formations), which currently entails the injection of pressurized fracturing fluids (consisting of water, sand and certain chemicals) into a well bore. Moreover, hydraulically fractured natural gas wells account for a significant percentage of the natural gas production in the U.S.; the U.S. Energy Information Administration reported in 2016 that hydraulically fractured wells provided two-thirds of U.S. marketed gas production in 2015" (Page 49)
 - "Hydraulic fracturing activities are typically regulated at the state level, but federal agencies have asserted regulatory authority over certain hydraulic fracturing activities and equipment used in the production, transmission and distribution of oil and natural gas, including such oil and natural gas produced via hydraulic fracturing. Federal and state legislatures and agencies may seek to further regulate or even ban such activities. For example, the Delaware River Basin Commission ("DRBC"), a regional body created via interstate compact responsible for, among other things, water quality protection, water supply allocation, regulatory review, water conservation initiatives, and watershed planning in the Delaware River Basin, has implemented a de facto ban on hydraulic fracturing activities in that basin since 2010 pending the approval of new regulations governing natural gas production activity in the basin. More recently, the DRBC has stated that it will consider new regulations that would ban natural gas production activity, including hydraulic fracturing, in the basin. If additional levels regulation or permitting requirements were imposed on hydraulic fracturing operations, natural gas prices in North America could rise, which in turn could materially adversely affect the relative pricing advantage that has existed in recent years in favor of domestic natural gas prices (based on Henry Hub pricing). Increased regulation or difficulty in permitting of hydraulic fracturing, and any corresponding increase in domestic natural gas prices, could materially adversely affect demand for LNG and our ability to develop commercially viable LNG facilities" (Page 49 and 50)
- New Fortress Energy is trying to get planning permission in Pennsylvania to build two
 plants to liquify the fracked gas in order to ship it here to Ireland. This is also stated
 in the SEC filing here:

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¹ https://marcellusdrilling.com/wp-content/uploads/2018/11/s002392x7_s1.pdf

- o New Fortress Energy LLC Filing at the US Securities and Exchange Commission on November 9, 2018 "We are an integrated gas-to power company that seeks to use "stranded" natural gas to satisfy the world's large and growing power needs"[...] "We are currently developing two liquefiers in the Marcellus area of Pennsylvania, each of which is expected to have the capacity to produce approximately 3 to 4 million gallons of LNG (which is the equivalent of 250,000 to 350,000 MMBtu) per day, and intend to develop five or more additional liquefiers over the next five years." (Page 9)
- "On March 2, 2018, the Company entered into a gas purchase agreement with a major Marcellus Shale producer to supply approximately 160 mcf/d or equivalent of approximately 2,000,000 LNG gallons per day to the Company effective upon fulfillment of certain conditions precedent". (Page 175)
- "Shannon, Ireland We have entered into an agreement to purchase all of the ownership interests in a project company that owns the rights to develop and operate an LNG terminal and a CHP plant on the Shannon Estuary near Ballylongford, Ireland. The Ireland Terminal is expected to commence commercial operations in the fourth quarter 2020. We intend this terminal to include a storage facility with onshore regasification equipment and pipeline connection into the distribution system of Gas Networks Ireland, Ireland's national gas network. We plan to deliver LNG to the terminal via a traditional size LNGC. The equipment on site will have the capacity to import and regasify more than 6 million gallons of LNG (500,000 MMBtu) per day, which is the equivalent of Ireland's total foreign natural gas imports. Additionally, the planning permission approval for the terminal includes the ability to build an integrated 500MW power plant on-site with priority dispatch. Our Liquefaction Assets

We intend to supply all existing and future customers with LNG produced primarily at our own Liquefaction Facilities. We have one operational liquefaction facility in Miami, are currently are currently developing our Pennsylvania Facilities and plan to develop five to ten additional liquefaction facilities over the next five years." (Page 80)

- New Fortress Energy has stated that the fracked gas will come to the Gibbstown, PA liquification plant directly from fracked gas from the Marcellus Shale in Bradford County PA. As noted in the "State Impact Pennsylvania" journal about local opposition in Pennsylvania to the plant.
 - "LNG would be shipped to the Gibbstown port via truck from a new liquefaction plant being built in Bradford County, Pennsylvania, amid the abundant natural gas supplies of the Marcellus Shale, according to a Securities and Exchange filing by the plant's developer, New Fortress Energy. The plant, costing an estimated \$750-\$850 million, would have a capacity of 3.6 million gallons a day and could serve markets in the Northeast by truck, the company said in a statement."
 - "Environmentalists said during a conference call with reporters that an LNG export terminal would endanger public safety by risking an explosion; boost fracking for natural gas by opening up overseas markets..."We're looking at massive public safety impacts from Bradford County all the way to South Jersey," O'Malley said.

² https://stateimpact.npr.org/pennsylvania/2019/06/15/delaware-river-basin-commission-confirms-plan-to-build-lng-export-terminal-at-new-south-jersey-port/

2. <u>From the Pennsylvania Department of Environmental Protection (DEP) 98.23% of Gas produced in Pennsylvania in 2017 was fracked gas:</u>

- We assume that almost 100% of the Gas in Pennsylvania is fracked gas since socalled conventional wells are also being drilled in shale and also need to be fracked (for more details see point 7.4). However, even if we take the more conservative approach of only unconventional wells being fracked, then it is still proven from official US figures that up to 98.23% of gas in Pennsylvania in 2017 was fracked gas.
- According to the Pennsylvania Department of Environmental Protection (DEP)³, most
 of the gas coming from Pennsylvania, the second largest producer of natural gas in
 the States after Texas which New Fortress Energy wants is from fracking otherwise
 known as unconventional drilling. Over 90% of Well Drilling permits issued in
 Pennsylvania were for unconventional wells in 2017 and this figure was over 86% in
 2018.

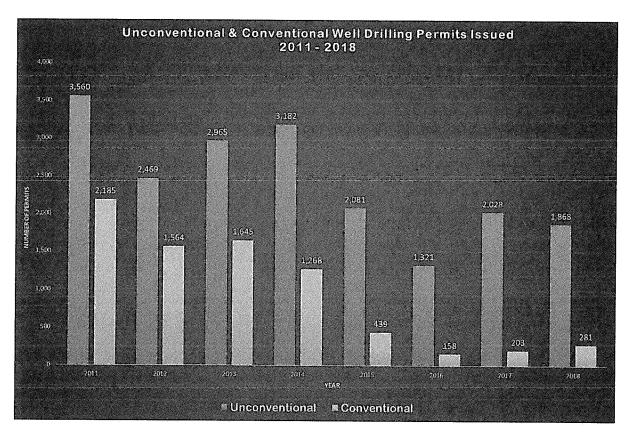


Figure 1. Source: https://www.depgis.state.pa.us/OGAnnual2018Report/DrillingPermitIssued11 18.png (Percentage of Unconventional/Fracking Well Permits issued in Pennsylvania in 2017 is 2,028/2,231*100 = 90.9% and in 2018 is 1,868/2,149*100=86.92%)

³ <u>https://www.depgis.state.pa.us/2018OilGasAnnualReport/index.html</u> and <u>http://www.depgis.state.pa.us/2017oilandgasannualreport/</u>

 According to the Pennsylvania Department of Environmental Protection (DEP)⁴, unconventional/fracked gas production in Pennsylvania increased from 5.3 trillion cubic feet in 2017 to 6.1 trillion cubic feet in 2018.

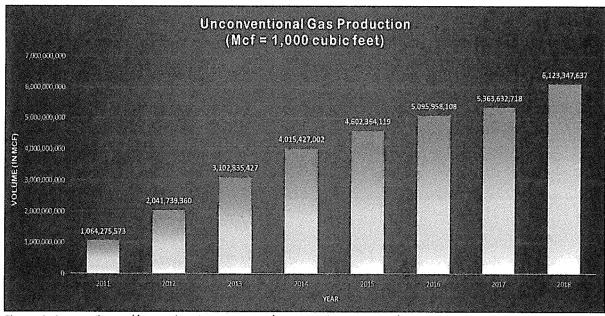


Figure 2. Source: https://www.depgis.state.pa.us/OGAnnual2018Report/UnconvGasProd.png

 And again, according to the Pennsylvania Department of Environmental Protection (DEP)⁵, unconventional/fracked gas production in Pennsylvania as a percentage of total gas production was 98.23% in 2017.

Pennsylvania Department of Environmental Protection Office of Oil and Gas Management AT A GLANCE PA Natural Gas Production (unconventional): 5.36 trillion cubic feet Avg. # Wells Reporting Gas Production (unconventional): 7,794 PA Natural Gas Production (conventional wells): 96.5 billion cubic feet # Wells Reporting Gas Production in 2017 (total): 57,461

Figure 3: Source https://www.depgis.state.pa.us/2017oilandgasannualreport/img/OGKeyFacts-2017.pdf This gives a figure of natural gas production in Pennsylvania from unconventional/fracked sources as a percentage of overall production of 5.36/(5.36+.0965)*100=98.23% in 2017

⁴ https://www.depgis.state.pa.us/2018OilGasAnnualReport/index.html

⁵ http://www.depgis.state.pa.us/2017oilandgasannualreport/

3. From the US Energy Information Administration (EIA) at least 97.85% of Gas produced in Pennsylvania in 2018 was fracked gas:

According to the US Energy Information Administration (EIA)⁶, Pennsylvania's gross natural gas production, primarily from the Marcellus Shale, reached 5.4 trillion cubic feet in 2017, rising to 6.2 trillion cubic feet in 2018. This means that, as per Figure 4 below, Unconventional Shale gas production in Pennsylvania was 98.01% of total gas production in 2017 and 97.85% in 2018.

	Statistics & An ergy Inform stration		Source	es & Uses	• Topic	s → Geo	graphy 🕶	Tools 🕶	
NATURAL	GAS								
OVERVIEW DATA • A	NALYSIS & PR	OJECTIONS		n u svenki ensk					
Natural Gas Gross Withdrawals and Production (Volumes in Million Cubic Feet)									
Area: Pennsylvania		→ Perío	d-Unit: Annu	al-Million Cul	bic Feet	V			
Download Series History Definitions, Sources & Notes									
Show Deta By: ② Data Series	Graph Clear	2015	2014	2015	2016	20177	2018	View History	
Gross Withdrawals	₽~ □	3,259,042	4,257,693	4,812,983	5,210,209	5,453,638	6,210,673	1987-2018	
From Gas Wells	₩ □	207,872	217,702	199,397	258,240	99,433	124,482	1967-2018	
From Oil Wells	\$~ D	2,987	3,527	2,634	2,565	2,502	1,944	1967-2018	
From Shale Gas Wells	→ □	3,048,182	4,036,463	4,600,594	4,941,174	5,345,332	6,077,554	2007-2018	
From Coalbed Wells	fr 🗆	0	0	10,357	8,230	6,372	6,693	2006-2018	
Repressuring	₽ □	0	0	0	0	0	0	1967-2018	
Vented and Flared	₽	0	0	0	0	0	0	1967-2018	
Nonhydrocarbon Gases Removed	-	0	0	0	0	0	0	1997-2018	
Marketed Production	\$~ 	3,259,042	4,257,693	4,812,983	5,210,209	5,453,638	6,210,673	1967-2018	
NGPL Production, Gaseous Equivalent	Şen 🔲	20,936	39,989	53,542	68,773	63,853	87,744	1967-2018	
Dry Production	→ □	3,238,106	4,217,704	4,759,441	5,141,435	5,389,785	6,122,930	1982-2018	

Figure 4. Natural Gas Production in Pennsylvania. Source: US Energy Information Administration - https://www.eia.gov/dnav/ng/ng prod sum dc spa mmcf a.htm. This shows that Unconventional Shale gas production in Pennsylvania in 2017 was 5,345,332/5,453,638,000*100= 5,363,632,718/5,453,638*100=98.01% of total gas production and in 2018 this figure was 6,077,554/6,210,673*100=97.85% of total gas production.

⁶ https://www.eia.gov/dnav/ng/ng prod sum dc spa mmcf a.htm

4. From the Methane Life Cycle Scientist Professor Robert Howarth of Cornell University New York:

 Professor Robert Howarth of Cornell University of New York, an expert on the global methane cycle, addressed the Oireachtas Joint Committee on Climate Action meeting on Wednesday, 9 October 2019 to discuss 'the impact of fracked gas on the climate and its impact on Irelands climate goals should we facilitate the importation of fracked gas from North America into Ireland'.
 He stated that

"If Ireland were to import liquefied natural gas from the United States, it would largely be shale gas."

5. <u>From Richard Bruton, T.D., the Minister for Communications, Climate Action and Environment himself:</u>

- In an interview with Seán O'Rourke on RTE Radio on May 10th 2019, Minister Bruton, in the defence of exploration in Ireland, admitted that the gas coming from the US would be fracked gas when he stated the following:
 - "My attitude is that we are not in a position now to talk about ceasing exploration. We need, for this transition, we need access to fossil fuels, particularly to gas, and if that gas resource is available, that can be supplied through our own network, which we have built and is available to us, that is far preferable to being dependent on bringing in FRACKED gas from the US, bringing in Russian gas. So it is absolutely appropriate that we have security of supply for fossil fuels during this transition but our determination is to reduce dramatically and rapidly our dependence on fossil fuels. So at the end of the day I have to pick the route, the changes, select measures carefully and weigh the costs of proposals against the benefit of the yield and introduce them in a timely way".

6. From Business and Investment Media Reports on the Issue:

- https://www.bloomberg.com/news/articles/2019-06-04/fortress-billionaire-wes-edens-bets-on-freedom-gas-exports
- https://www.naturalgasintel.com/articles/116533-new-fortress-energy-planning-two-lng-plants-in-northeast-pennsylvania
- https://www.rivieramm.com/news-content-hub/news-content-hub/lng-refuelling-options-grow-with-new-small-scale-plants-55949
- https://www.inquirer.com/business/lng-export-terminal-philadelphia-repauno-fortress-approved-20190612.html

https://www.oireachtas.ie/en/debates/debate/joint committee on climate action/2019-10-09/2/

https://www.youtube.com/watch?v=ie6agMwF9jE&feature=youtu.be

- https://marcellusdrilling.com/2018/11/new-fortress-energy-building-second-pa-lngexport-facility/
- https://eu.delawareonline.com/story/money/business/2019/03/02/new-fortress-energy-lng-port-delaware-river/2990003002/
- https://www.desmogblog.com/2018/10/04/lng-by-rail-small-scale-exports-florida-edens-fortress
- https://www.njspotlight.com/2019/07/19-07-16-lng-export-terminal-would-take-360-trucks-a-day-24-7-army-corps-says/
- https://stateimpact.npr.org/pennsylvania/2019/06/15/delaware-river-basin-commission-confirms-plan-to-build-lng-export-terminal-at-new-south-jersey-port/
- https://therealnews.com/columns/a-fossil-fuel-baron-just-bought-usa-today

7. From Industry Analysis on the Issue:

- 7.1 The Shale boom in the US because of fracking. The Fracking debate that is happening in the US, EU and Ireland is because of shale.
 - The Marcellus Shale is the most prolific natural gas-producing formation in the Appalachian basin (in Pennsylvania). EIA estimates proven reserves in the Marcellus Play of 77.2 trillion cubic feet (Tcf) at year end 2015 which makes it one of the largest natural gas plays in the U.S.⁹
 - Pennsylvania's marketed natural gas production averaged a record 15 billion cubic feet per day (Bcf/d) in 2017, 3% higher than the 2016 level¹⁰. This production is largely from shale plays in the <u>Appalachian Basin</u>¹¹. Pennsylvania accounted for 19% of total U.S. marketed natural gas production in 2017 and produced more natural gas than any other state except Texas¹².
- 7.2 Shale gas production in the Appalachia region has increased rapidly since 2012, driving an overall increase in U.S. natural gas production. According to EIA's <u>Drilling Productivity Report</u>¹³, natural gas production in the Appalachia region—namely the Marcellus and Utica shale plays—has increased by more than 14 billion cubic feet per day (Bcf/d) since

⁹ https://www.eia.gov/maps/pdf/MarcellusPlayUpdate_Jan2017.pdf

¹⁰ https://www.eia.gov/dnav/ng/ng prod sum a EPG0 VGM mmcf a.htm

https://www.eia.gov/todayinenergy/detail.php?id=33972

https://www.eia.gov/todayinenergy/detail.php?id=35892

¹³ https://www.eia.gov/petroleum/drilling/

2012. Overall Appalachian natural gas production grew from 7.8 Bcf/d in 2012 to 22.1 Bcf/d in 2016 and was 23.8 Bcf/d in 2017, based on <u>EIA data through October 2017</u>. Drilling wells in the Appalachia region has become very productive. The <u>average monthly natural gas production</u> per rig for new wells in the Appalachia region increased by 10.8 million cubic feet per day since January 2012. EIA attributes this increase to <u>efficiency improvements in horizontal drilling and hydraulic fracturing</u> in the region, which include faster drilling, longer laterals, advancements in technology, and better targeting of wells¹⁷.

7.3 Dry Gas Production in the U.S.

- "The U.S. Energy Information Administration (EIA) estimates that in 2018, U.S. <u>dry shale gas production</u> was about 20.95 trillion cubic feet (Tcf), and equal to about 69% of total U.S. dry natural gas production in 2018." ¹⁹
- LNG Exports based on shale
 - New LNG exports will super-charge additional fracking, as 80 percent of the increased exports will come from new, i.e. fracked, wells.²⁰
 - "About 80% of the increase in LNG exports is satisfied by increased U.S. production of natural gas...Possible future export levels in the scenarios evaluated include very unlikely extremes, from zero in cases in which the U.S. "shale revolution" ends abruptly and global demand is limited to levels that exceed the total export capacity for which LNG export authorization applications have currently been filed at DOE/FE."
- "In just a matter of years, American shale gas exports have loosened the grip of traditional exporters and restrictive long-term contracts. Significant surplus gas production, increasingly competitive E&P techniques, rising oil prices and export-favourable policies at home are likely to support growth in the US LNG industry, with eleven LNG export projects approved by the US Department of Energy and 16 others proposed so far. [...] Transcontinental Gas Pipe Line's Atlantic Sunrise project could have an impact much sooner. By September, the new pipe would move low-

¹⁴ https://www.eia.gov/petroleum/drilling/#tabs-summary-2

https://www.eia.gov/petroleum/drilling/#tabs-summary-1

¹⁶ https://www.eia.gov/todayinenergy/detail.php?id=22252

https://www.eia.gov/todayinenergy/detail.php?id=33972

https://www.eia.gov/tools/glossary/index.php?id=Dry%20natural%20gas

¹⁹ https://www.eia.gov/tools/faqs/faq.php?id=907&t=8

https://www.foodandwaterwatch.org/insight/fracking-endgame-locked-plastics-pollution-and-climatechaos

priced gas from the Marcellus Shale to Transco's mainline, bringing cheaper Appalachian supply into Louisiana."²²

7.4. The Misleading "Conventional vs. Unconventional" terminology:

- One is always warned to avoid using these terms because they are entirely
 misleading. We must talk about fracked and non-fracked wells. Germany has used
 the same trick to still allow fracking (in sandstone layers) in protected areas.
- The Pennsylvania Department of Environmental Protection (DEP) definition of "conventional" wells is as follows:

"A conventional well is typically a well that is drilled vertically into a shallow oil or gas reservoir. Conventional wells are constructed on much smaller well pad sites than unconventional wells. Most conventional wells do not require large volumes of water for hydraulic fracturing and do not employ horizontal drilling techniques. In Pennsylvania, what constitutes a conventional well is defined by law in Act 52 of 2016 and 25 Pa. Code Chapter 78." 23

• The General Assembly of Pennsylvania defines a "conventional oil and gas well." in Senate Bill Number 279 as:

"a bore hole drilled or being drilled for the purpose of or to be used for construction of a well regulated under 58 pa.c.s. Ch. 32 (relating to development) that is not an unconventional well, irrespective of technology or design. The term includes, but is not limited to:(1) wells drilled to produce oil.(2) wells drilled to produce natural gas from formations other than shale formations.(3) wells drilled to produce natural gas from shale formations located above the base of the elk group or its stratigraphic equivalent.(4) wells drilled to produce natural gas from shale formations located below the base of the elk group where natural gas can be produced at economic flow rates or in economic volumes without the use of vertical or nonvertical well bores stimulated by hydraulic fracture treatments or multilateral well bores or other techniques to expose more of the formation to the well bore."²⁴

Having already anticipated the "trick" to exclude some wells from being counted as "fracking", (i.e. "unconventional") wells it is now clear from the definition above that "conventional wells" in Pennsylvania still produce gas from shale plays.

https://www.spglobal.com/platts/plattscontent/_assets/_files/en/specialreports/naturalgas/us-Ing-shale-iune-2018.pdf

http://www.depgis.state.pa.us/2017oilandgasannualreport/

In support of this argument, it is also of note that more new permits were given to "unconventional wells" and more violations were reported concerning "conventional" wells in 2017²⁵:

Permits Issued:

Unconventional Drilling Permit	2,028
Conventional Drilling Permit	203
Wells Drilled:	
Unconventional	810
Conventional	103
Total Wells Drilled	913
Violations:	
Unconventional	821
Conventional	3,273

Even the Industry itself (The Pennsylvania Independent Oil & Gas Association)
 confirms the "conventional vs. unconventional" misleading terminology – and leave no doubt that nearly all of the Gas produced in Pennsylvania is fracked:

"Thanks to technological advances in finding and producing natural gas" [i.e. FRACKING - ndlr]" Pennsylvania again is playing a key role in meeting the nation's energy needs. A rock formation approximately a mile below the surface known as the Marcellus Shale has become one of the world's largest natural gas fields, containing over 500 trillion cubic feet of natural gas. A significant portion of Pennsylvania is underlain by the Marcellus Shale, and drilling activity targeting this formation is taking place in more than 25 counties. A few thousand feet below the Marcellus is another formation called the Utica Shale that could ultimately become another huge natural gas resource for Pennsylvania, as could Upper Devonian formations just above the Marcellus. ...

Pennsylvania law defines an unconventional gas well as a well drilled into a shale formation below the base of the Elk Sandstone or its geologic equivalent where natural gas cannot be produced by horizontal or vertical well bores except when stimulated by hydraulic fracturing. Essentially, these wells are drilled into a shale that is so dense that the gas trapped inside cannot be released except by cracking the rock by means of hydraulic fracturing.

A traditional, conventional well is usually drilled into a sandstone formation that can range from as shallow as 1,500 feet to as much as 21,000 feet deep. Oil and gas are able to pass through these formations without hydraulic fracturing, but nearly all wells are stimulated through fracturing to improve production. Conventional wells have been drilled vertically, although a few operators are experimenting with horizontal drilling techniques in conventional formations. An estimated 350,000 conventional oil and gas wells have been drilled in Pennsylvania over the years (most

²⁵ http://www.depgis.state.pa.us/2017oilandgasannualreport/

of which were plugged and abandoned as their useful lives came to an end), compared to the current total of more than 11,000 unconventional wells.

Conventional oil and gas wells can be found in parks and on public land, along highways, even in residential neighborhoods. A well pad cleared for a conventional oil or natural gas well is smaller than that of a deep well and requires a smaller drilling rig to drill vertically and reach the targeted formation. It typically takes less than two weeks to drill these wells, with a few additional days required to stimulate and complete the well. Since the number of fractures into the rock are fewer than those of a horizontal well, the scope of the well stimulation operation is not as significant and does not require as much equipment or water.

The average conventional gas well in Pennsylvania produces less than 13 thousand cubic feet (mcf) per day, compared against 2,000 mcf for the average unconventional well."²⁶

7.5. FracTracker Oil & Gas Activities in PA²⁷

• FracTracker, the project, was originally developed to investigate health concerns and data gaps surrounding western PA fracking. Today, as a non-profit organization, FracTracker Alliance supports groups across the United States, addressing pressing extraction-related concerns with a lens toward health effects and exposure risks on communities from oil and gas development. We provide timely and provocative data, ground-breaking analyses, maps, and other visual tools to help advocates, researchers, and the concerned public better understand the harms posed by hydrocarbon extraction.

8. From U.S. President Donald Trump on 23rd October 2019:

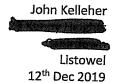
- At the 9th Annual Shale Insight Conference in Pittsburg, Pennsylvania, President Trump admitted that Pennsylvania is being fracked when he stated
 - "New York doesn't allow pipelines to go through. I don't know, there has to be some kind of a federal something that we can do there. But they won't allow pipelines to go through New York; this is for a long time. And they won't do any fracking in New York. And they won't take all of that wealth underneath and reduce their taxes. Wouldn't that be nice? They don't do it in New York. Somebody, someday, will explain why. [...] They do it in Pennsylvania. They do it in Ohio. They do it in states right around New York. They don't do it in New York."

--- End ---

https://www.fractracker.org/map/us/pennsylvania/

²⁶ https://pioga.org/education/pa-oil-and-gas/

https://www.whitehouse.gov/briefings-statements/remarks-president-trump-9th-annual-shale-insight-conference-pittsburgh-pa/



Senior Planner,
Planning Policy Unit,
Planning Department,
Kerry County Council,
County Buildings, Rathass, Tralee

Re 'Submission / Observations on Proposed Variation No. 3 of the Listowel Town Development Plan 2009-2015'

I as resident of Kenny Heights object to the rezoning of land known as Tobins Field and the proposed Greenway route for the following reasons.

- 1. Access road is not wide enough and is only wide enough for 1 vehicle to get to sheds and the use of the green area is not an option so this is un-developable.
- 2. There is simply no logic to trying to develop on a finished estate especially as Golf View alongside this estate is not finished and there is plenty land to rezone to residential in that estate where there wouldn't be an objection to it being developed.
- 3. The Greenway route passes the entrance of Kenny Heights and the Roundabout and would cause a further traffic risk. A much better route would be through Golf View and Kenny Heights via the existing Green Area at the rear of Kenny Heights. In order to get all the residents behind this route all the council would have to do is erect a 6ft Green Mesh Fence so there wouldn't be access via Kenny Heights.

John Kelleher

John Kelleher





TARBERT DEVELOPMENT ASSOCIATION

Charity Reg No: 20101960

RE: Draft Listowel Municipal District Local Area Plan 2019 – 2025 (Tarbert)

Submission from Tarbert Development Association (TDA)

TDA welcome the main thrust of the Draft plan as published but would like to make the following observations which are not included in the plan:

- 1. Priority must be given to addressing a workable traffic management plan for Chapel Street and Bridewell/Main Street.
- 2. As a consequence of the recent change made to the speed limit on the N 67(Ferry Road) from 50Km to 80Km a continuous footpath, must be provide to ensure the safety of the many people, of all ages, that walk along this road every day of the year.
- 3. Some traffic calming measures <u>must</u> be considered for the N 69 approach road from Glin. Traffic on this road is often influenced by the visibility of the ferry at or near the pier for a part of this road, drivers frequently ignore the speed limit so as to get to the ferry quickly and these drivers need to be slowed down. Traffic travelling west to the Ferry or Ballybunion have to cut across the N 69 Listowel Road and from this high point the road falls rapidly again along Main Street/Bridewell St. and this undulation leads to restricted driver visibility along that section. Pedestrians crossing this road take their life in their hands as there is no pedestrian crossing within Tarbert.
- 4. Because of the ferry there is a large number of vehicular movements through the town all year long and as has been acknowledged in the Draft LAP Objective TT -GO-01 (Promote the strengthening of Tarbert as an employment <u>and service centre</u> commensurate with its function as a district town and as an attractive residential location, <u>rural service centre</u> and <u>tourist destination</u>) and in this era of climate change this must include providing EV charging points.
- 5. The Inner Relief road as proposed by Nick de Jong in 2008 should no longer be an aspiration but a necessity both for traffic management and for the provision of off-street parking spaces.

End of submission