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SHANNON LNG

Briefing for Policymakers

Key points:

- This document presents the key arguments in opposition to the proposed development of "Shannon LNG", a Liquefied Natural Gas (LNG) terminal on the Shannon Estuary in Ballylongford, Co. Kerry.
- To have any chance of limiting temperature rise below 1.5C and avoiding catastrophic climate change, European countries must get out of gas by 2026[i]. Shannon LNG would be in operation until at least 2050, locking Ireland in to fossil energy at the expense of investment in sustainable renewable energy.
- It is highly likely that more than two thirds of the gas imported through Shannon LNG will be fracked gas from the US. Ireland banned fracking in 2017; it is contrary to the intention of this Act to support this process, which has devastating ecological and human health impacts, in other countries.
- Shannon LNG would be counter-productive for energy security in Ireland, increasing our reliance on a single energy source and leaving us vulnerable to a complete shutdown of our electricity system in the event of an interruption in gas supply. Through investment in renewables, energy storage and synthetic fuels, rapid decarbonisation of the Irish energy system, without compromising energy security, is both technically and economically feasible.[ii]

Introduction

As the implications of climate change become increasingly evident, rapid, deep decarbonisation of our economy is essential to ensure a safe and prosperous Ireland. The burning of fossil fuels such as gas, oil, peat and coal is responsible for more than 75% of developed nations Greenhouse Gas (GHG) emissions[iii]. To combat climate change it is essential to transition to a low-GHG energy mix.

The proposed development of a Liquefied Natural Gas (LNG) terminal in Co. Kerry to import gas from the United States is antithetical to Ireland's necessary transition to a low-carbon economy. Shannon LNG, owned by US company New Fortress Energy, consists of an LNG import terminal, 4 tanks of 200,000 cubic metres capacity each, a 26 km pipeline which will cut through the Kerry and Limerick countryside, and a 500MW power plant. This infrastructure will be built onshore on a greenfield site[iv]. Shannon LNG will have the capacity to process 3 million tonnes of gas per year[v], with a regasification capacity of more than 10.3 bcm/y[vi], over twice Ireland's annual gas consumption[vii]. The project will cost €500 million to develop, and New Fortress Energy has stated that it expects to "rely on public funding to cover up to half the cost of the Shannon LNG project"[viii].

In this briefing we outline why the Shannon LNG must not go ahead and we ask you to actively oppose the project.

1. The Myth of "Clean" Gas

While gas is often marketed as a "low-carbon" fossil fuel, the nature of LNG in fact makes it dirtier than coal on a full life-cycle basis[ix]. The processing of LNG results in significant **methane leakage**, a greenhouse gas which over a 20 year period is 86 times more powerful in terms of global warming potential than carbon dioxide[x]. This potent impact means that gas must be rapidly phased out of the energy mix by 2026 in Ireland and Europe to have any chance of staying under a 1.5C temperature rise[xi].

Ireland banned fracking in 2017 because of the dangers to communities and the environment[xii]. However, we allow **fracked gas** in the Irish energy mix, disregarding the impacts on communities where this gas is extracted[xiii]. Shannon LNG owner New Fortress Energy recently announced that it is developing new liquefaction facilities in Pennsylvania, while its' existing facility is in Miami[xiv]. This suggests that the gas shipped to Shannon LNG will be shipped from these US facilities. As at least 67% of gas produced in the US is fracked gas[xv], and this number is expected to increase, it is "highly likely" i.e. a greater than 67% chance, that the LNG shipped to Ireland will be fracked gas.

2. The Myth of Energy Security

A common argument in favour of Shannon LNG is that the development of new gas infrastructure supports energy security. This argument assumes a reliance on fossil gas for our energy needs until 2050. However, increasing our reliance on one source of energy in this way is counter-productive for energy security, in that an interruption of gas supply could completely shut down our electricity system. Recent research argues that the best way to address both Irish energy security and the pressing need for rapid decarbonisation is to constrain and reduce energy consumption (through efficiency measures and/or absolute reductions in energy services) and to directly exit from the use of all fossil fuels, including gas, as quickly as is safely feasible. Fossil fuels can be replaced with proven indigenous zero- or negative-carbon energy sources (primarily wind, solar, and sustainably cultivated indigenous bioenergy), complemented by large scale energy storage facilities[xvi]. Renewable energy is already worth at least €1.5 billion a year to Ireland, employing 18,000 people[xvii].

3. Economic implications

Shannon LNG, if developed, would have a lifespan of 40-50 years[xviii]. This would commit Ireland to **fossil fuel "lock-in**", whereby resources which could be invested in sustainable, renewable energy sources are instead invested in unsustainable fossil energy. For example, the public service obligation (PSO) levy allocated to subsidising peat and securing gas supply totalled €169.2 million in 2014[xix]. Continued reliance on fossil energy sources will also make Ireland unable to meet its emission reduction targets under the EU Effort Sharing Agreement, and subject to fines of €455m[xx].

Investors are increasingly wary of environmental-related risk exposure[xxi] and over $1.5 trillion in assets will be divested from the fossil fuel industry in the coming years[xxii]. Fossil fuel companies are being forced to write down the value of **"stranded assets"**, fossil fuel reserves which are no longer commercial[xxiii]. Liquefied Natural Gas terminals are at particular risk of becoming stranded assets[xxiv]. Last year the BNP Paribas Group announced last year that it will no longer finance LNG terminals that "predominantly liquefy and export gas from shale"[xxv].

Climate change will result in significant **economic costs**. The IPCC report published in October 2018 states that global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate. A 1.5C increase will mean "extreme temperatures in many regions, increases in frequency, intensity, and/or amount of heavy precipitation in several regions and an increase in intensity or frequency of droughts in some regions". Global warming is also expected to "drive the loss of coastal resources, and reduce the productivity of fisheries and aquaculture"[xxvi]. These are crucial issues for countries like Ireland with valuable tourism and fishing industries. Extreme weather events such as severe flooding could cost Ireland over €1.15 billion per year by 2050[xxvii].

4. Local impact

The importation of Liquefied Natural Gas requires large, disruptive and dangerous infrastructure, with **safety** risks for local communities, as illustrated by several serious incidents. For example, in 2014, an LNG terminal explosion in Plymouth, Washington, USA, left five workers hurt and caused about 400 people to evacuate from nearby farms and homes, and in January 2018, the Sanchi oil tanker, an Iranian tanker carrying LNG, collided with another ship in the East China Sea, resulting in the death of 32 crew members. Also in January 2018, the Sabine Pass LNG facility in Louisiana was ordered to shut down two of its gas storage tanks due to gas leaks, the twelfth such incident to occur at the site since 2008. 15 percent of leaks in gas pipelines qualify as "potentially explosive"[xxviii].

Fossil fuel infrastructure and the associated pollution affects the **tourism industry** in the area and the physical and mental health of the community. Total tourism revenue for the Irish economy in 2016 was around €7.8 billion and overall employment in tourism is estimated to be in the region of 220,000[xxix]. While the Shannon LNG terminal will create 350 jobs during construction, it will only create 50 long-term jobs[xxx].

The lower Shannon Estuary is designated as a **Special Protection Area** under the European Communities (Conservation of Wild Birds) (Amendment) Regulations. The site is home to over twenty species of wetland and waterbirds, and is the only Special Area of Conservation for dolphins in Ireland.

Closing Remarks

For the Earth to remain a safe operating space for humanity, for both current and future generations, global temperatures must be maintained at less than 1.5°C above pre-industrial levels. To do this 80% of the known fossil fuels need to stay in the ground[xxxi]. The development of new fossil fuel infrastructure is antithetical to maintaining a safe planet. Irish citizens are increasingly calling on the government to take action to combat climate change, as illustrated by the recommendations made by the Citizen's Assembly on climate change in November 2017[xxxii]. The decarbonisation of the energy mix is technically and commercially feasible and will greatly enhance energy security in Ireland, where we are historically highly dependent on imported energy[xxxiii].

UN scientists have warned that we have 12 years to stop climate change; we cannot allow a huge fossil gas terminal to be built in Co. Kerry. Currently the Irish government is supporting Shannon LNG[xxxiv]. We are asking TDs and Senators to actively oppose this project and help us to stop Shannon LNG.

[i] Friends of the Earth Europe (2017). *Can the Climate Afford Europe's Gas Addiction?* Brussels:FOE Europe
[ii] McMullin, B., Price, P., Carton, J., & Anderson, K. (2018). Is Natural Gas "Essential for Ireland's Future Energy Security"? Dublin:Stop Climate Chaos
[iii] US Energy Information Administration (2018) Where Greenhouse Gases Come From. Available: https://bit.ly/2Pi1EL0. Accessed 04.12.2018
[iv] Shannon LNG (2016) Permitted Onshore LNG Terminal Summary Description, Available: http://www.shannonlng.ie/terminal/index.html. Accessed 04.12.2018.
[v] Daily Forex Report (2018) Fortress Investment Group Expands Liquid Natural Gas Projects Ahead of IPO. Available: https://bit.ly/2QgRek7. Accessed 29.11.2018
[vi] European Commission (2018) *Technical information on Projects of Common Interest.* Available: https://ec.europa.eu/energy/sites/ener/files/technical_document_3rd_list_with_subheadings.pdf
[vii] European Commission (2018) *Technical information on Projects of Common Interest.* Available: https://ec.europa.eu/energy/sites/ener/files/technical_document_3rd_list_with_subheadings.pdf
[viii] Corkhill, M (2018) New Fortress builds on LNG presence with Irish, Mexican projects. *LNG World Shipping.* Available: https://bit.ly/2AQLJ0V. Accessed 05.12.2018
[ix] Oil Change International (2018) *Jordan Cove LNG and Pacific Connecter Pipeline Greenhouse Gas Emissions Briefing*. Oil Change International.
[x] Howarth, R. W. 2015. Methane emissions and climatic warming risk from hydraulic fracturing and shale gas development: implications for policy. *Energy and Emission Control Technologies*. 2015(3):45-54.
[xi] Anderson, K and Broderick, J (2017) Natural Gas and Climate Change. Manchester:Tyndall Manchester.
[xii] O'Halloran, M. (2017) Ireland joins France, Germany and Bulgaria in banning fracking. *Irish Times*, 28.06.2017.
[xiii] Healy, D. (2012) *Hydraulic Fracturing or 'Fracking': A Short Summary of Current Knowledge and Potential Environmental Impacts.* Johnstown Castle: Environmental Protection Agency.
[xiv] LNG World News (2018) New Fortress Energy expanding LNG assets. Available: https://bit.ly/2UgS7rw. Accessed 05.12.2018
[xv] US Energy Information Administration (2016) Hydraulically fractured wells provide two-thirds of U.S. natural gas production. Available: https://bit.ly/2rBnsp8. Accessed 05.12.2018
[xvi] McMullin, B., Price, P., Carton, J., & Anderson, K. (2018). Is Natural Gas "Essential for Ireland's Future Energy Security"? Dublin:Stop Climate Chaos
[xvii] Department of Communications, Energy and Natural Resources (2015). *Ireland's Transition to a Low Carbon Energy Future: 2015-2030*. Dublin:DCENR
[xviii] Perez, A. (2018) Global Gas Lock-in: Bridge to Nowhere. Brussels:Rosa Luxembourg Stiftung
[xix] Environmental Protection Agency (2016) *Ireland's Environment: An Assessment 2016*. Johnstown Castle:EPA
[xx] Burke-Kennedy, E. 'Ireland's Bill for missing climate targets set to fall', *The Irish Times*, 24 Nov 2017.
[xxi] Plender, J. (2017) Investors are demanding corporate action on climate change. *Financial Times*, 17 December 2017
[xxii] 350.org (2018) 350 Campaign Update: Divestment. Available: https://350.org/350-campaign-update-divestment/. Accessed 04.12.2018
[xxiii] Scheyder, E. (2017). Exxon boosts capital budget but takes $2 billion charge from XTO deal. *Reuters*. 31 Jan 2017.
[xxiv] Perez, A. (2018) GLOBAL GAS LOCK-IN BRIDGE TO NOWHERE. Brussels:Rosa Luxembourg Stiftung
[xxv] BNP Paribas (2017) BNP Paribas takes further measures to accelerate its support of the energy transition. Available: https://bit.ly/2E3jIGZ. Accessed 04.12.2018
[xxvi] Intergovernmental Panel on Climate Change (2018) *Global Warming of 1.5C.* Switzerland:IPCC
[xxvii] Department of Communications, Climate Action and Environment (2018) National Adaptation Framework. Dublin:DCCAE.
[xxviii] Concerned Health Professionals of NY (2018) *Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking (Unconventional Gas and Oil Extraction).* Available: https://bit.ly/2Sp7pse. Accessed 05.12.2018
[xxix] Department of Transport, Tourism and Sport (2018). "Overview of Tourism Industry". Available: http://www.dttas.ie/tourism. Accessed 2018, 20 Jan.
[xxx] Keena, C (2008). Court challenge to €500m gas facility. *Irish Times*, 27.05.2008. Accessed 04.12.2018
[xxxi] Carbon Tracker Initiative (2013). *Unburnable Carbon – Are the world's financial markets carrying a carbon bubble?* London:Carbon Tracker Initiative.
[xxxii] The Citizens Assembly (2018). "How the State can make Ireland a leader in tackling climate change". Available: https://bit.ly/2vaXRqZ. Accessed 20.01.2018
[xxxiii] McMullin, B., Price, P., Carton, J., & Anderson, K. (2018). Is Natural Gas "Essential for Ireland's Future Energy Security"? Dublin:Stop Climate Chaos
[xxxiv] Quinn, E (2018) €1bn Shannon gas project acquired. *Irish Examiner,* August 25, 2018.