Our Case Number: ABP-319566-24

An Bord Pleanála

Tara Fitzgerald
Kerrykeel
Letterkenny
Co. Donegal
F92 Y023

Date: 19 June 2024

Re: The proposed development will comprise of a 600MW Powerplant, 120MW Battery Energy Storage System, Above Ground Installation and associated ancillary works.
Located within the townlands Kilcolgan Lower and Ralappane between Tarbert and Ballylongford Co.Kerry. (www.steppowerplant.com)

Dear Sir / Madam,

An Bord Pleanála has received your recent submission in relation to the above mentioned proposed development and will take it into consideration in its determination of the matter. Please accept this letter as a receipt for the fee of €50 that you have paid.

The Board will revert to you in due course with regard to the matter.

Please be advised that copies of all submissions / observations received in relation to the application will be made available for public inspection at the offices of the local authority and at the offices of An Bord Pleanála when they have been processed by the Board.

More detailed information in relation to strategic infrastructure development can be viewed on the Board's website: www.pleanala.ie.

If you have any queries in the meantime please contact the undersigned officer of the Board. Please quote the above mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,

Pp

Ellen Moss
Executive Officer
Direct Line: 01-8737285

PA04

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Objection to Proposed Power Plant

By: Not Here Not Anywhere
Address: Tara Fitzgerald, Kerrykeel, Letterkenny, Co. Donegal, F92Y023
Date: 17 June 2024

Submission in relation to: 600MW Powerplant, 120 MW Battery Energy Storage System, Above Ground Installation and associated ancillary works located within the townlands Kilcolgan Lower and Ralappane between Tarbert and Ballylongford Co.Kerry (Reference number: PA08.319566)

1. Introduction

To take meaningful action to mitigate the climate crisis and avoid lock-in to a dirty energy future, the Shannon LNG power plant must not go ahead. Gas usage in Ireland needs to be reduced immediately if we are to maintain a safe climate (UCC 2050 Project, 2020; McMullin and Price, 2019).

Below we elaborate on the following reasons this planning application must be rejected:

- Scale of the global climate crisis
- The need to develop a diverse and sustainable energy mix, rather than increasing our reliance on a single, finite back-up energy source
- Greenhouse Gas (GHG) emissions impact of the proposed powerplant -and the applicant's omission of methane leakage, use of liquid gas and operating a data centre when considering emissions impact
- Multiple instances of separate planning permission required, including the gas pipeline projected to be used
- Construction timeline estimates the powerplant will be completed in September 2029, which does not align with the claim to support Ireland's transition to 80% renewable

generation by 2030

- The applicant's suggestion of operating in future using a 50% hydrogen blend would facilitate an increased reliance on fossil fuels for decades to come
- This powerplant is not needed for energy security

Investment in the power grid going forward should be on renewable energy projects, not on projects which lock-in emission-intensive fossil fuel generation. New large scale fossil fuel infrastructure is incompatible with a 1.5C world (Smith et al, 2019), and it would be disastrous for An Bord Pleanála (ABP) to approve this project which has no place in a sustainable future for Ireland. ABP should reject this planning application for a gas power plant as its operation over decades would contradict the 2021 Climate Act, which prescribes legally binding targets to ensure Ireland achieves sufficient emissions reductions (51% emissions reductions by 2030 and a climate neutral economy by 2050). Previously, ABP did not consider the Climate Act when granting permission for the Galway ring road, which was subsequently quashed based on the Climate Act. Despite the applicant claiming that the construction of a large fossil fuel power plant would contribute to emissions reductions, it is clear from the EIAR that it would in fact lead to a substantial increase in emissions.

2. Climate Crisis

We are experiencing an escalating climate emergency. The 8th of February 2024 marked the planet's first year-long breach of the 1.5 degrees warming limit (Poynting, 2024). This year has seen the highest global and ocean temperatures on record (Poynting, 2024). In May 2024 alone, hundreds were killed by extreme flooding in Afghanistan, while in Brazil, floods in Rio Grande do Sul killed at least 161 people and affected more than 2.34 million (UNHCR, 2024). A collaborative study across five European countries revealed that the storm rainfall in Ireland and the UK in autumn and winter 2023 was made approximately 20% heavier by human-caused climate change (World Weather Attribution, 2024). The window of time in which we can prevent catastrophic climate change is rapidly closing and Ireland needs to immediately reduce dependence on the fossil fuels driving the crisis. Ireland's Climate Act reflects this urgency by prescribing legally binding targets for 51% emissions reduction by 2030 and climate neutral economy by 2050.

3. Mythbusting: natural gas as a 'bridge' fuel or 'transition' fuel

The applicant, Shannon LNG, claims: "*gas will be the only backup to intermittent renewables from 2030*" (Section 3.4 EIAR Non-Technical Summary (NTS)). However, the applicant fails to account for alternative, more diverse generation and storage options. Storage options being planned now for completion at the end of the decade should be those that can decrease fossil fuel demand, not increase it. Investing in new fossil fuel infrastructure would divert funding and resources from imperative development of long-term, sustainable renewables and would risk lock-in to polluting energy systems. To truly achieve a secure and sustainable energy future for Ireland, we must develop a diverse and sustainable energy mix, combined with demand-side measures to reduce gas use, such as retrofitting of housing stock. It would be hugely counter-productive to increase our reliance on a single, finite back-up energy source, and it is clear that the statement that gas can be "the only backup" in the EIAR is false.

The EU has estimated that EU-wide fossil fuel use must drop by 90% by 2050 to stay under 1.5 degrees of warming (Global Witness, 2020), while gas production needs to drop by 40% globally in the next decade (Global Witness, 2019). Modelling by University College Cork's (UCC) MaREI Centre for Energy, Climate and Marine research showed that gas demand must reduce consistently from 2020 onwards, by at least 11% by 2030 and 37% by 2040 compared to 2020 figures, if we are to achieve 2050 decarbonisation targets (UCC 2050 Project, 2020). McMullin and Price (2019) recommend "extremely rapid and immediate absolute reductions in near term fossil fuel usage, at a year-on-year rate of c. 20%, falling effectively to zero within 10-15 years (c. 2030-2035)" to achieve Paris-aligned climate targets.

Thus, it is increasingly accepted that fossil gas cannot be regarded as a 'bridge fuel' in the low carbon transition until renewable energy meets demand (Howarth, 2014; Mutitt et al, 2016; Stockman et al, 2018; Nisbet et al, 2019; Cremonese et al, 2016; Stockman, 2018; Rainforest Action Network, 2019). Gas emits high levels of methane at all stages of the supply chain (Alvarez et al, 2018). Methane is a potent greenhouse gas (GHG) which the Intergovernmental Panel on Climate Change (IPCC) has calculated as having 86 times more Global Warming Potential (GWP) than CO2 over a 20 year period (Myhre et al, 2013:714, Table 8.7). Recent studies have shown that methane emissions from fossil fuel production have been significantly under-reported (Hmiel et al, 2020). This evidence clearly undermines the applicant's case that granting permission for their project would be consistent with the Climate Act.

4. Emissions Impact

In Table 15.2, Climate Chapter, EIAR, operational-phase Fugitive Emissions are stated in the third row to be included within Scope 3 – Fuel and Energy-Related Activities. However, upon consulting this Fuel and Energy-Related Activities row, it is stated that there are *"none expected"*. This omission of fugitive emissions and associated methane leakage is a fundamental flaw of the GHG accounting methodology and injects an undesirable level of risk into the application. Therefore, the submitted planning documentation significantly underestimates the project's emissions.

Further, the applicant, Shannon LNG, admits: "*The GHG assessment for the Proposed Development has considered the Proposed Development to have a **Major Adverse** residual effect and is therefore considered **Significant***" (Section 15 - Climate, EIAR, NTS). At the eleventh hour of the time left to mitigate the impact of climate change, we urge An Bord Pleanála to reject the application for a power plant which would have major, destructive greenhouse gas implications. Further, while the applicant claims to align with local, regional and national policy objectives, there is a gaping omission of compliance with carbon budgets and sectoral emissions ceilings. The applicant projects the plant to emit 21,742,544 tCO2e over a 25-year period (2.7% of Ireland's carbon budget).

The applicant claims "*All [policies] point to the need for a significant uplift in the delivery of flexible gas-fired power generation capacity to 2030*" (Sectiom 1.1 EIAR, NTS). Conversely, the EPA projects that Ireland will reduce GHG emissions by only 29% by 2030, far below the Climate Act's legally-binding target of 51% that is central to the Government's climate policy. The organisation called for urgent implementation of policies that deliver emissions reductions in the short term across all sectors of the economy (O'Sullivan, 2023). The proposed project will significantly increase emissions, contravening the Climate Act.

The applicant in EIAR section 15.8.1.2 states that "*The Power Plant will not operate at 100% capacity all year round. The actual operation of the plant will be determined by many factors such as power demand itself, the amount of renewable generation on the system, its bid price into the market compared to other generators, and the rules of the grid to ensure priority is given to renewable generation.*" Based on these factors, the applicant's emissions calculations within the EIAR are based on the power plant operating at 70% capacity year round.

However, as per the planning report Section 2.2, the application also states that "*a Strategic Gas Reserve Facility and Data Centre Campus is not included in this application and will therefore be subject to a separate planning application*" and that *"the proposed development will generate power for its own needs and for sale to the market". "Its own needs"* here refers to the energy-hungry data centres which will be constructed under a separate planning application.

Furthering the likelihood that the proposed fossil fueled power plant is planned to be used to directly power data centres, the 600MW application is nearly double the 2023 agreement with EirGrid cited by the applicant for a 353MW power plant. Additional gas powered electricity supply for data centres will undermine, not support, the state's legally binding climate action targets. It is clear from this documentation submitted within the planning report (Section 1.3.2, Vol. 2 Ch 1 Introduction, EIAR) that the additional power capacity will be used to power data centres by fossil-fuel generated power, contradicting the Statement on the Role of Data Centres in Ireland's Enterprise Strategy according to which "the government has a preference for data centre developments that can demonstrate the additionality of their renewable energy use in Ireland."

The EIAR states openly that direct emissions from the power plant would account for an increase in national GHG emissions of 2.8% in 2030 (853,890 tCO2e). As outlined above, this is likely to be far higher due to a) failure to include fugitive emissions and b) increased use of the power plant (above the 70% year round capacity assumed within the EIAR calculations) as data centres, which will be always on and using power generated by the power plant, are constructed on the Shannon LNG campus.

In addition, the applicant notes that 'liquid fuel will "*be used for testing and in the event of a national gas supply emergency*" (Section 8, EIAR, NTS). However, the projected emissions calculations and lifecycle GHG assessment fail to account for the emissions associated with the use of liquid fuel. The applicant states: "*Well-to-tank emissions include those upstream emissions associated with the extraction, refining and transportation of the raw fuel source (Natural Gas (NG)) to the point of use*" (15.5.1.5, Ch 15 Climate, EIAR). However, the applicant omits reference to the emissions associated with extracting, liquefying, transporting and regasifying this liquid gas. This omission is significant, particularly when a substantial amount of methane is leaked from liquefied natural gas (LNG) across the full supply chain (Alvarez et al, 2018). LNG is a particularly emissions-intensive form of gas, estimated to be 20% more emissions intensive than short-distance gas on a full life-cycle basis (Anderson and Broderick, 2017).

Furthermore, the application states that this new gas plant will allow for dirtier fuel plants (i.e. coal, oil) to be shut down. However, according to Eirgrid, coal already makes up a small share of our power generation and regardless the applicant's claim that their plant will replace coal and oil powered production is speculative, not under the control of the applicant, and therefore should not be considered in ABP's decision.

5. Multiple instances of separate planning permission required

Throughout the application, reference is made to the *"previously consented 26 km natural Gas Pipeline (Planning Reference: PL08.GA0003)"* to *"facilitate transport of the natural gas between the Site and the national gas network at Foynes"* (1.3, EIAR - NTS). However, consent for this pipeline was obtained in 2009, meaning the operational, technical, safety and environmental assessments and the oral hearings and inputs from the CRU and HSE are now 15 years out of date.

We question whether this 2009 planning permission is still valid and whether it is legally appropriate for ABP's approval to remain in place, given that the pipeline was associated with the development of an LNG terminal and planning permission for such a LNG terminal is not in place.

Further, the applicant states *"An application to connect to the national electrical transmission network via a high voltage (HV) 220 kV grid connection is required to export power from the Proposed Development, when operational. The exact route cannot be confirmed until the detailed design is completed, however this process is currently underway. It is expected that the connection will run 5 km east of the Site, under the L1010 road to the ESBN / EirGrid Kilpaddoge 220 kV substation"* (2.2, EIAR - NTS). Therefore, currently no connection has been granted to the national grid to export generated power, and there is no granted connection to the national gas network to power the proposed power plant.

The development of this proposed power plant would be contingent on other infrastructure for which planning permission has not been approved:

1. Grid Connection (Referenced from 2.3.12.1, EIAR Vol. 2 Chapter 2).
    a. *"A high voltage (HV) 220 kV grid connection to the national electrical transmission network is required to export power from the Proposed*

Development Power Plant, when operational"

b. *"A medium voltage (10 / 20 kV) grid connection will be used as a backup power supply".*
c. *"The 220 kV high voltage connection and the medium voltage (10 / 20 kV) will be subject to connection agreements with EirGrid and ESBN respectively. These grid connections will be subject to separate planning applications and do not form part of the Proposed Development."*

2. Industrial Emissions Licence (1.5, EIAR - NTS)
    a. *"This EIAR will also accompany the Industrial Emissions licence application to the Environmental Protection Agency following submission of the planning application".*

In addition, permission has not been attained for the development of a data centre nor the conversion of the proposed transition of the site for hydrogen use.

6. Construction Timeline

The applicant notes that the *"start date of January 2026 is taken as a construction start date (however this is subject to change). The construction programme is anticipated to take 32 months, subject to seasonal and other planning constraints. During construction, approximately 1,070 No. people will be employed onsite at peak. An additional period of up to six months will be required for commissioning prior to operation"* (2.4 EIAR - NTS)

If the projected timeline estimates that the power plant will be completed in September 2029 (32 months from January 2026), we question how this aligns with the applicant's supposed aim *"to back-up renewable generation and thereby maintain a resilient electricity supply to the country while supporting the transition to 80% renewable generation by **2030**"* (3.2 EIAR - NTS)?

We also question how the proposed design life of 25 years aligns with Ireland's climate targets? The applicant has not provided clear information on how its burning of gas will be limited and phased out in line with legally binding carbon budgets. This raises serious concerns that the applicant's 25-year operational period and continued use of fossil gas over this period may undermine the state's carbon budget programme and emissions reductions.

ABP must account for the risks associated with the Shannon LNG fossil gas power plant becoming underutilised, uneconomic and ultimately a stranded asset in the context of Ireland's target of up to 80% renewable electricity by 2030 (National Development Plan, 2021-2030), and net zero decarbonisation by 2050 (Climate Act, 2021).

7. Transition to Hydrogen

The applicant purports that the proposed power plant would have "*the capability to operate at a 50% blend of hydrogen*" to offset emissions (2.1, EIAR Vol. 2 Chapter 2). However, there is no reference to green hydrogen throughout the application. Green hydrogen is the only form of hydrogen that can be produced in a climate-neutral manner from renewable energy sources (World Economic Forum, 2021). In fact, New Fortress Energy (which owns Shannon LNG) CEO, Wes Edens, said in an earnings call that "Green hydrogen businesses today, in my opinion, are not commercially viable" (Argus Media, 2021). Thus, this large-scale fossil fuel infrastructure project cannot be allowed to proceed based on a claim that it may at some stage be used with renewable fuels, which the company itself does not deem to be viable.

The claim that the proposed power plant has the capability to operate at a 50% blend of hydrogen would mean that the other 50% would be fossil gas - up to 2054, in accordance with the projected design life. Moreover, due to the absence of reference to green hydrogen, the form of hydrogen that would be used by the power plant is likely to be generated using fossil fuels. This flies in the face of the significant reductions and ultimate phase out of gas supply required to comply with Irish law(Climate Act) and legally binding carbon budgets, as noted in previous sections.

Additionally, Not Here Not Anywhere previously conducted a literature review examining the compatibility of LNG infrastructure with Liquid Hydrogen. Our review found that converting LNG import terminals to green hydrogen is currently neither technically nor commercially practicable. While the review focused on LNG, we call on the Board to examine the compatibility of a natural gas facility with hydrogen. Our review found that liquid hydrogen (LH) is 90°C lower in temperature than LNG, so LNG pipelines and storage tanks used for LH would be subject to corrosion, or hydrogen embrittlement (TWI, n.d.). LNG process equipment such as pumps and vaporisers, required to feed LH to the grid, would be technically difficult and

expensive to convert. While storage tanks could potentially be converted, further research is required to understand this (Kolff, 2021). Ammonia, another energy carrier, is more compatible with LNG infrastructure, but it is acutely toxic and polluting (International Energy Agency (IEA), 2019). Furthermore, LH has a lower density than LNG and therefore a lower heating value per unit volume (IEA, 2019). A LH tank must therefore be two to three times larger than an LNG tank to store an equal amount of energy (Kolff, 2021). This makes it far less economical to store LH in a retrofitted LNG tank, even if technical barriers to conversion could be overcome. Similar compatibility issues likely would complicate the use of gas power plants for hydrogen.

8. Shannon LNG and New Fortress Energy

Shannon LNG is owned by New Fortress Energy, who have previously made payments to Kerry County Council without being transparent of the purpose of these transactions (O'Doherty, 2022), shedding doubt on their status as a professional, trustworthy developer.

As previously mentioned, the proposed power plant is projected to later involve data centres subject to future planning applications. Rather than commitment to supporting Ireland's transition to renewables and implementation of the Climate Action Plan as the applicant claims, this would actually increase Ireland's energy demand and worsen its energy security. Ireland would be jeopardising its climate security and climate targets to allow a US-company to profit from the proposed data centres and power plant.

9. Facilitating the development of LNG infrastructure?

The applicant notes "*Liquid fuel will only be used for testing and in the event of a national gas supply emergency*" (Section 8, EIAR, NTS). However, there is a significant concern that the proposed application is facilitating demand and infrastructure for a future LNG terminal, previously rejected by the Board. The planning application also omits details on the sourcing of the liquid fuel, which is a further matter of serious concern. We advise the Board to give close consideration to this issue and to query the necessity of needing liquid fuel capacity.

10. Energy security

The applicant does not address the existing measures in place set out by Government in the Energy Security Review Package (DECC, 2023) regarding a Strategic Gas Emergency Reserve, namely IC1 or 2 from Moffat, "for use in the event of a disruption to gas supplies." The company

regulating the UK's grid National Grid has assured that "Irish consumers would be treated 'absolutely equally' to those in the British market in the event of a supply emergency" (Taylor, 2022). The Moffat Interconnector, which supplies the Republic of Ireland with gas from mainland UK, also supplies gas to Northern Ireland and the Isle of Man, preventing Ireland being cut off selectively from the UK gas market.

In section 2-2 of the Planning Report, the applicant states that a "Strategic Gas Reserve Facility and Data Centre Campus is not included in this application and will therefore be subject to a separate planning application". While the EIAR is based on the assumption that the power plant will only operate for 70% of the year, it is likely that the plant would not be constructed unless planning consent is planted for these data centres which would use a large amount of the fossil fueled electricity generation at the site and enable the plant to run at 100% capacity all year round. This would considerably increase the project emissions from the site and also decrease any contributions to energy security, as the site's own data centres would likely be prioritised for power ahead of grid dispatch.

Data centres already account for 18% of all electricity use in Ireland, equivalent to 1.5 million homes (CSO, 2023). The sector is growing rapidly: electricity consumption by data centres increased by 31% in 2022 (CSO, 2023). When the additional planned centres become operational, the total electricity consumption from data centres in Ireland will likely stand at 3.29 GWs, more than doubling current consumption rates (Bitpower, 2023). Growth in data centre electricity consumption has been even more rapid than expected, and the national grid operator Eirgrid has repeatedly warned of an "increasing tightness between supply and demand" leading to the likelihood of system alerts or even power cuts (Eirgrid, 2022, p. 8).

The ownership of the plant by New Fortress Energy is another security of supply risk in and of itself, with energy infrastructure being in foreign ownership at the expense of indigenous renewables and storage solutions.

Any investment in new fossil fuel infrastructure, or providing a market for such infrastructure, will displace investment in clean energy (Shearer et al., 2014). It is also directly contrary to market signals; renewable energy portfolios consistently outperform fossil fuel investments, with IEA and Imperial (2021) showing that renewable power portfolios generate triple the returns of fossil fuel portfolios and proved more resilient during the Covid-19 pandemic. Numerous studies highlight that renewable energy with storage is cleaner and cheaper than

fossil fuels (Hainsch et al, 2020; Solar Power Europe & LUT University, 2020; CAN Europe and EEB, 2020; Inman, 2020). Therefore, the Board can entirely disregard the suggestion by the applicant that "*the proposed Power Plant is the most efficient, flexible and reliable option with the lowest CO2 emissions profile of the alternatives considered*".

11. Local Communities

The proposed power plant would create a mere 34 jobs for north Kerry (Section 2.6, EIAT, NTS) during the operational stage. To ensure the sustainable development of the area, we recommend refusing permission for this application to enable this strategic land reserve to support the resourcing and the development of renewable energy systems and investing in an Irish hub of research and development in sustainable energy infrastructure. This would create long-term employment in sustainable sectors, rather than jobs that must become obsolete as we transition from fossil fuels to renewables.

12. Conclusion

We urge ABP to reject the application for the Shannon LNG Power Plant. To align with legally binding carbon budgets under the 2021 Climate Act, it is integral that we maximise our resources to drive development of renewable infrastructure and a diverse and sustainable energy mix - and do not risk lock-in to a single back-up fossil fuel-based energy source. The estimated date of completion for the development is 2029, which does not align with the applicant's claim of backing up renewable energy to support the transition to 80% renewables by 2030. Additionally, the operational, technical, safety and environmental assessments obtained for the gas pipeline between the site and the national gas network at Foynes are 15 years out of date. Finally, the GHG assessment for the proposed development concludes that the power plant would have a Major Adverse residual effect, rendering the GHG impact significant; this is without the methane leakage from the project considered, without addressing the GHG emissions associated with the use of liquid gas, and without considering additional direct emissions associated with powering on-site data centres. In the context of an escalating climate emergency, it would be hugely counterproductive and irresponsible to grant permission for the development of the Shannon LNG power plant.

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