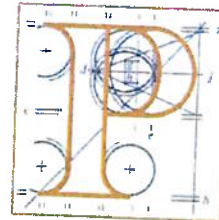


**Our Case Number:** ABP-317560-23



**An  
Bord  
Pleanála**

Aine McCann  
12 The Grove  
Gort  
Co. Galway  
H91Y8P8

**Date:** 22 January 2024

**Re:** Proposed windfarm development including 13 no. wind turbines in Bunnyconnellan, Co. Mayo and hydrogen plant in Castleconnor, Co. Sligo.  
Carrowleagh, Bunnyconnellan, Co. Mayo and Curraun, Castleconnor, Co. Sligo.

Dear Sir / Madam,

An Bord Pleanála has received your submission in relation to the above mentioned proposed development and will take it into consideration in its determination of the matter.

As your submission is a further information submission following on your original submission which was received by the Board on 31st August 2023, this further information observation is free of charge.

A refund of 50 euro will be issued to the card used to make the payment in due course.

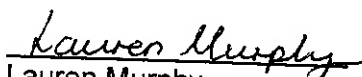
The Board will revert to you in due course in respect of this matter.

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](http://www.pleanala.ie).

If you have any queries in the meantime, please contact the undersigned officer of the Board or email [sids@pleanala.ie](mailto:sids@pleanala.ie) quoting the above mentioned An Bord Pleanála reference number in any correspondence with the Board.

Yours faithfully,



Lauren Murphy  
Executive Officer  
Direct Line: 01-8737275

|                           |                |  |
|---------------------------|----------------|--|
| <b>Teil</b>               | <b>Tel</b>     | (01) 858 8100  |
| <b>Glaao Áitiúil</b>      | <b>LoCall</b>  | 1800 275 175   |
| <b>Facs</b>               | <b>Fax</b>     | (01) 872 2684  |
| <b>Láithreán Gréasáin</b> | <b>Website</b> | <a href="http://www.pleanala.ie">www.pleanala.ie</a>   |
| <b>Ríomhphost</b>         | <b>Email</b>   | <a href="mailto:bord@pleanala.ie">bord@pleanala.ie</a> |

|                      |                       |
|----------------------|-----------------------|
| 64 Sráid Maoilbhríde | 64 Marlborough Street |
| Baile Átha Cliath 1  | Dublin 1              |
| D01 V902             | D01 V902              |

Áine McCann. BSc (Hon) Environmental Science

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**Response to Third Party Submission Document Made by  
Mercury Renewables to An Bord Pleanála Dated November 2023  
with Regard to Application No; ABP-317560-23 (PA16.317560)  
and Observations of Submissions to said Application by Other  
Third-Party Applicants.**

**Concerning the proposed development of;**

- Wind farm at Firlough, Co. Mayo
- Hydrogen Plant, Co Sligo

Áine McCann  
12 The Grove  
Gort  
Co Galway H91Y8P8  
Ireland

[REDACTED]

[REDACTED]

## **1. Introduction**

According to Mercury's own response in their third-party submissions and observations document submitted to An Bord Pleanála in November 2023 page 5 and I quote.

*‘All planning applications have to be determined on their individual merits with due consideration given to the overall planning balance of a scheme.’*

Such merits include attention to and accuracy of information, an ability to demonstrate an understanding of the area the company wishes to operate in; to include regulated functions such as compliance with government and industry standards. An understanding of the Irish planning application process.

I propose that mercury have in this instance field to demonstrate all the above in failing to complete their application for the proposed developments in a correct manner and with numerous errors making this a flawed process and rendering the planning application invalid.

To allow it to proceed on the basis of incomplete documentation and inaccurate information would be an affront to the planning system and leave the board open to judicial review.

I will not reiterate the litany of environmental governance, legislation, past and present protocols at all levels as, well as regional, county, local area development plans which feed into even the most basic of planning applications in order for us to maintain proper, cohesive, and strategic planning for correct functioning of our country's infrastructure.

This is of even more importance where a Strategic Infrastructure development (SID) application is concerned. The above have been listed *ad nauseam*, unduly focused on in both the applicant's planning application and response document as if these factors in and of themselves give rise to an automatic right to planning permission on this basis alone, or even that a lack of adherence to the correct procedures involved in the SID process should be overlooked to achieve Government objectives (2030 & 2050 CO2 reduction emission figures); 'meeting the target at any cost'.

There will always be geopolitical concerns such as wars and fuel shortages both of which we have many times previously for example the fuel crisis of 1973 & 1979, these are outside of our remit and control as a nation and do not form the basis for us to breach protocol with regard to proper planning, for projects to be shunted through and adherence to the submission to the correct documentation for an application to be set aside.

Such actions have been seen in other applications to An Bord Pleanála such as the recent application for what would have seen the largest Bio-gas plant in Ireland being built near the town center of Gort in Co Galway. Due to the developers and those hired by the developers, inability understand the process they were undertaking inaccurate calculations were submitted regarding gas contained at the plant. This was further compounded by the ABP inspector highlighting the inaccuracies and adding to the problem by also miscalculating the amount of gas held at the plant and acting outside his brief as he is not a COMAH or HSAI advisor and applying the incorrect HSA and COMAH criteria to the site. The inability to complete basic mathematical calculations coupled with an inability by the ABP inspector to seek expert opinion is extremely worrying. We can only assume these actions were not deliberate, to underestimate the gas stored on site had the potential to cause grievous and possibly death to many persons as the plant was subsequently recategorized as a tier 1 COMAH site from having on risk level at all.

This application was subject to judicial review and conceded on the basis of inaccuracies and incomplete information in areas other than this example given above, that is an incomplete planning application as we see in this instance.

Inaccurate and misleading information in relation to another biogas plant in county Offaly was sited and accepted by ABP in material contravention of the local development plan and incorrectly reinforced by an ABP inspector resulting in the planning decision being overturned in the High Court (11/01/2024 Grafton Group vs ABP). Irrelevant matters were also considered in relation to the application.

I note there is no ABP inspectors report available for this application.

Use of language is very important and the company continually throughout the planning application and response two third party submissions and observation document continually and repeatedly use the phrase 'as the project matures' as if it was some kind of cheese. This clearly demonstrates a lack of understanding of the planning process as a planning application particularly of a SID level should be finalized before submission to ensure all parameters and mitigation measures can be met.

No timeline is included for the upscaling of the project to give certainty of when exactly the 'green hydrogen' will be available and have an impact on reducing Irelands CO2 emissions. This is of importance as throughout the documents the company uses government targets for CO2 reduction in 2030 and 2050 to justify the need for the project. However, we are not told at any point when the project will reach full production and contribute in its full capacity to the reduction targets for CO2 emissions. It also tries to justify itself by stating that energy generated from the wind farm will be fed back into the national grid. While this is welcome it is not the reason for the existence/planning of the windfarm its purpose is to make the production of the Hydrogen gas (H2) a green one so it would appear that this is an

afterthought. As per my submission of this were a truly 'green design' instead of dissipating the considerable energy from the fin fan coolers it would have fed that energy back into the plant in the form of heating for water or buildings. It is unreasonable to suggest as the applicants have that this method to achieve this does not exist at this time of writing, it was simply not considered demonstrating a lack of understanding of true sustainable energy use.

The lack of clarity around the so-called maturing of the project raises further concerns that means in effect the application is incomplete and should not be considered. The applicant had sufficient time and expert advice on placing the application so it should have been carried out correctly and submissions of further documents to the board should not be accepted.

A further factor of allowing the Hydrogen plant to 'mature' is the lack of decision making in and around key processing equipment for the Hydrogen including the size of the tanks to hold the compressed hydrogen calculations cannot be carried out in relation to serious issues such as traffic movement which has implications for the junction to the N9, an accident black spot, as well as COMAH and HSA regulations regarding gas storage and noise I will address these issues further in the document.

As an island nation we should strive to become fuel independent and efficient as well as meeting our ecological commitments.

Geologically Ireland has been left with very little resources to draw for these purposes and while wind and water are in abundance particularly on the West Coast of Ireland it is incumbent on us to ensure that as we strive to meet our looming emissions targets in 2030 and 2050 we leave behind a well-planned functioning system from an ecological, societal, and business perspective.

To make this possible it is imperative that companies wishing to engage in any 'green energy activity' complete their planning applications fully and correctly in line with all planning requirements clearly demonstrating an understanding of the process they are undertaking so as to ensure the safety of the residents of the surrounding area as well as the ecology for generations to come.

While every business must be profitable monetary gain seems to be an over ridding incentive in the 'green energy rush'

Using my own document, I shall address the issues listed above and cite other areas of concern supplemented by submissions and observations made by other third parties.

## **2. Areas of concern**

### **2.1 Traffic**

As mentioned in the introduction the company has rendered it impossible to gain any accurate information on the number of traffic movements per day during the operations phase of the project (leaving aside the lack of information on traffic movements in the construction phase) this is due to a lack of clarity on which equipment to be used to store the compressed gas at the plant as well as the undefined timeline for the upscaling of the project to its true operational potential to meet the government needs to drop its CO2 emissions.

Due to the vagaries contained within the planning application and response to third party submissions and observations we are left with a range of figures relating to truck movements in and out of the hydrogen plant during its operational phase.

#### ***11.27.4.6 Road Traffic 'Site Access Road***

***During operations, the maximum number of trucks to the Hydrogen Plant Site will be 26 per***

***day which equates to 52 movements per day. Distributed over a 12-hour period (07.00-***

***19.00hrs) this equates to 4.3 movements per hour. The average movement is taken as 5***

***trucks per hour.***

***EIAR***



Source: Mercury submission document.

#### 4.2.2 Page 64

*'The Hydrogen Plant electrolyser will be built in phases to match the growth of demand for hydrogen in Ireland. Initially a 10 MW electrolyser will be installed, with a maximum daily hydrogen production of 4,000 kg of Hydrogen. Tube trailers currently in operation in the U.K.*

*can hold 384 kg of hydrogen at 380 bar, this gives a maximum daily number of hydrogen trailers, filled with hydrogen, leaving the Hydrogen Plant Site of 11 during this initial phase.*

*The capacity of the hydrogen tube trailers currently offered by vendors but are not common in the UK and Irish market at the time of writing is 1,200 kg of hydrogen at 380 bar pressure.*

*It is a working assumption that as the hydrogen market develops, the tube trailer market will also evolve. This results in a maximum predicted number of tube trailers filled with hydrogen leaving the Hydrogen Plant Site per day of 26 when the full capacity of 80 MW is installed.'*

#### ElAR 15.5.14

**'There will be a maximum of 26 tube trailers filled with gaseous hydrogen and then transported away from the plant everyday (see Section 15.7.2). Typically, regular staff will be using the facility on an on-going basis and staff parking has been incorporated into the design. Approximately 10 cars can be allowed for as working traffic to the Hydrogen Plant.'**

Again, it should be noted that no time scale for phased growth is offered or projections for the transfer of heavy goods vehicles from diesel to 'green Hydrogen' (H<sub>2</sub>) as this is the target market for this product.

Application fails to include movement of persons working at the plant in the daily traffic movements.

We can assume from the above figures that during the darkest months of the year the maximum traffic flows on to a busy national road where a number of accidents have already occurred.

According to Mercury's own figures it will be the 1'200kg tanks which will be used on their site as they have listed.

**Truck movements using the larger 1'200kg pressurised tanks.**

4'000kg per day / 1'200kg tank = 3.33 fills \* 2 = **6.66 truck movements per day at 10MW capacity.**

4'000 \* 8 = 32'000kg gas per day @ full production 80MW

32'000kg / 1'200kg = 26.6 tank fills per day \* 2 = **53.2 total truck movements in and out of plant per day at maximum 80MW capacity.**

**Truck movements per day using smaller 348kg pressurised tanks.**

4'000kg per day / 348kg tank = 10.41 tank fills per day \* 2 = **23 total truck movements in and out of plant per day at 10MW capacity**

4'000 \* 8 = 32'000kg gas per day at full production 80MW

$32'000\text{kg}/384\text{kg} = 83.33$  tank fills per day \* 2 = **166.66 truck movements per day at 80MW capacity**

| Capacity                         | Daily truck movements<br>using 384kg tanks | Daily truck movements<br>using 1'200kg tanks |
|----------------------------------|--|--|
| 10MW                             | 23   | 7  |
| 80MW                             | 167  | 53   |
| Operational staff<br>(10*2)      | 20   | 20   |
| Total daily traffic<br>movements | 210  | 80   |

If it is predicted, according to the given information by Mercury above, that; ***'It is a working assumption that as the hydrogen market develops, the tube trailer market will also evolve.'*** and we will see the smaller 384kg compression tanks being used resulting, according to their own figures, more traffic movements onto the N59.

This will increase the risk of accidents with HGV's, especially during dark rainy winter months. It also invalidates the assumptions made in relation to the ability of this junction to manage this type of traffic flow. The intersection from the site onto the smaller local road L-66121 is not considered. See below.

#### **EIAR 15.5.14**

*There will be a maximum of 26 tube trailers filled with gaseous hydrogen and then transported away from the plant everyday (see Section 15.7.2). Typically, regular staff will be using the facility on an on-going basis and staff parking has been incorporated in to the design. Approximately 10 cars can be allowed for as working traffic to the Hydrogen Plant. This means that the N59 at the L-6612-1 Junction is predicted to be running at 618 AADT at this junction, which is approximately 5.3% of its capacity and therefore has the capacity to accommodate the Hydrogen Plant operational traffic.*

#### **Concerns from Local residents over N59/L-6611 / N59/L-66121 staggered junction.**

Janice and Wes Moran, local residents of the area (Eircode F26A584) submitted observations with respect to the staggered junction where the proposed round about is to be placed. They cite this location has been on a hill with existing line of sight issues. There are also hollows where vehicles disappear out of sight completely. This submission is in line with other observations with regard to this junction. There have been a number of accidents at this location in which local people have been involved in trying to turn off the N59. Also comment on the added danger in this area at nighttime due to the topography which gives rise to the site issues and the dips and hollows in the road. As mentioned previously gas tanker traffic, HGVs, will be at its height during the winter months when visibility is affected by low light levels and inclement weather.

## **2.2 Transport Infrastructure Ireland Response**

I note that according to Transport Infrastructure Irelands (TII) submission on the proposed development, no design plan has been submitted for the N59/L-66121 junction which is a

serious omission and demonstrates the lack of attention to detail and an awareness of how regulated bodies function, the necessity to have the planning application complete prior to submission as it is not a retrospective process. I am unsure how the public are to have faith in a company who omits such a document at a time of increasing road deaths in Ireland. According to page 40 of the nontechnical summary document consultation was carried out in conjunction with Mayo County Council on design of the proposed roundabout at the N59/L-66121 junction.

*'The Hydrogen Plant Site has one site entrance, located 600 metres off the N59. The haul route includes 10 metres of local road L-6612-1 and an entrance to the N59 in the townland of Carraun which will be subject to improvement works, including a new round about and a junction that has been designed in consultation with the County Council Roads Department to provide safe entrance and egress to the facility. These will remain throughout the operational phase of the Proposed Development.'*


It is however Beyond the scope of the County Council roads department or Mayo County Council to grant permission to a change in the use of a primary national route they would have been acting beyond their remit. It is surprising at this consultation stage that the developers were not made aware of the need to apply to transport infrastructure Ireland order to place a roundabout at the junction of N59/L-66121.


The Board will be aware that TII has a range of specific functions under The Roads Act 1993 (as amended) to support the general function of providing a safe and efficient national road network. Specifically relevant to this Strategic Infrastructure Development application and in particular the proposed alterations to the N59/L66121 Junction, Section 19(1)(e) provides the authority to TII to specify standards in relation to design, construction or maintenance works to be complied with by a person, road authority or public authority carrying out works to a national road. Such standards are set out in the suite of technical design standards collectively referenced as TII Publications.

TII has no record that a Design Report has been submitted in relation to the proposed alterations to the N59 Junction with the L66121. TII Acceptance of a Design Report is required as set out in TII Publication GN\_GEO\_03030 ([www.tiipublications.ie](http://www.tiipublications.ie)). TII considers that this matter should be resolved in advance of any decision on the

Príobháilte Bliú sonraí pearsanta a sholáthraítear dó i gcomhréir lena Fhógra ar Chosaint Sonraí atá ar fáil ag [www.tii.ie](http://www.tii.ie).

TII processes personal data in accordance with its Data Protection Notice available at [www.tii.ie](http://www.tii.ie).

 **Bonnasgar Iompair Éireann**  
Ionad Gró Gheata na Páirce  
Gró Gheata na Páirce  
Baile Átha Cliath 8  
Eire, D08 DK10

 **Transport Infrastructure Ireland**  
Parkgate Business Centre  
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001 0302

application in the interests of road user safety and to ensure appropriate design and safety standards are applied to the proposed development and can be reflected in conditions of any decision to grant permission.

No serious planning application can possibly be expected to take an ad hoc 'wait and see approach' to such a large development.

## **2.3 Concerns over Inconsistencies highlighted in other submissions regarding mislabeling and incorrect roads being audited.**

Many of the roads are labelled incorrectly in the planning application. An example of this is the Stage 1 Safety Audit carried out by CST Group.

CST Group sought and were given permission/approval by TII to carry out a stage1 road safety audit. It would seem however that the incorrect junction was surveyed.

The proposed junction to be used to turn off the national road network (N59) onto the secondary road is the N59/ L-66121 there then is a 10m drive to the proposed site entrance on the L-66121 not the junction of the N59/ L-6612 which is further up the road. The L6612 links onto the L-66121 before joining the N59.

See approval from TII for road survey team below as well as two maps showing location and relationship of L-66121 and L-6612 to each other and to the N59.

## Appendix B TII Approval of RSA Team

From: TII Systems Notification <[noreply@tii.systems](mailto:noreply@tii.systems)>  
Sent: Tuesday 12 July 2022 15:53  
To: [smolloy@jodireland.com](mailto:smolloy@jodireland.com)  
Cc: [roadsafetyaudits@nra.ie](mailto:roadsafetyaudits@nra.ie); [Fiona.Bohane@corkrdo.ie](mailto:Fiona.Bohane@corkrdo.ie); [Alastair.DeBeer@TII.ie](mailto:Alastair.DeBeer@TII.ie); [Bryan.kennedy@TII.ie](mailto:Bryan.kennedy@TII.ie); [L.Curtis@Kerrycoco.ie](mailto:L.Curtis@Kerrycoco.ie); [Kevin.O'Flynn@tii.ie](mailto:Kevin.O'Flynn@tii.ie); [Frank.Healy@tii.ie](mailto:Frank.Healy@tii.ie); Stuart Summerfield | CST Group <[ssummerfield@cstgroup.ie](mailto:ssummerfield@cstgroup.ie)>; [pjgallagher20@hotmail.com](mailto:pjgallagher20@hotmail.com)  
Subject: RSAAS - Road Safety Audit Approvals System - Audit Approval 28421293/29194/Stage 1  
Importance: High

Sean Molloy  
Finisklin Business Park  
Sligo

Date: 12/07/2022

Our Ref: 28421293/29194/Stage 1

re: N59 Carraun Road (L6612) - N59 Junction

### APPROVAL OF ROAD SAFETY AUDIT TEAM, Stage 1

Dear Sean Molloy,

The following members of the proposed road safety audit team are approved to carry out the Stage 1 road safety audit of N59 Carraun Road (L6612) - N59 Junction.

1. Stuart Summerfield - CST Group Consulting Engineers - Leader
2. PJ Gallagher - CST Consulting Engineers - Member

A copy of all audit reports, design team response and exception reports must be uploaded through RSAAS. Successful upload of these reports and completion of the audit approval process is necessary for any further audit approval on this scheme.

Yours sincerely,

Lucy Curtis

Regional Road Safety Engineer  
[roadsafetyaudits@tii.ie](mailto:roadsafetyaudits@tii.ie)





Above junction N59/L-6612



Junction N59/L-66121 to lower left-hand corner. Proposed entrance according to submitted plans.

As a result, this road safety audit is invalid.

Conflicting plans for the roundabout at the junction on N59; stage 1 road safety audit do not match the roundabout schematics submitted to EIAR section 15 Traffic and Transport section.

See below.

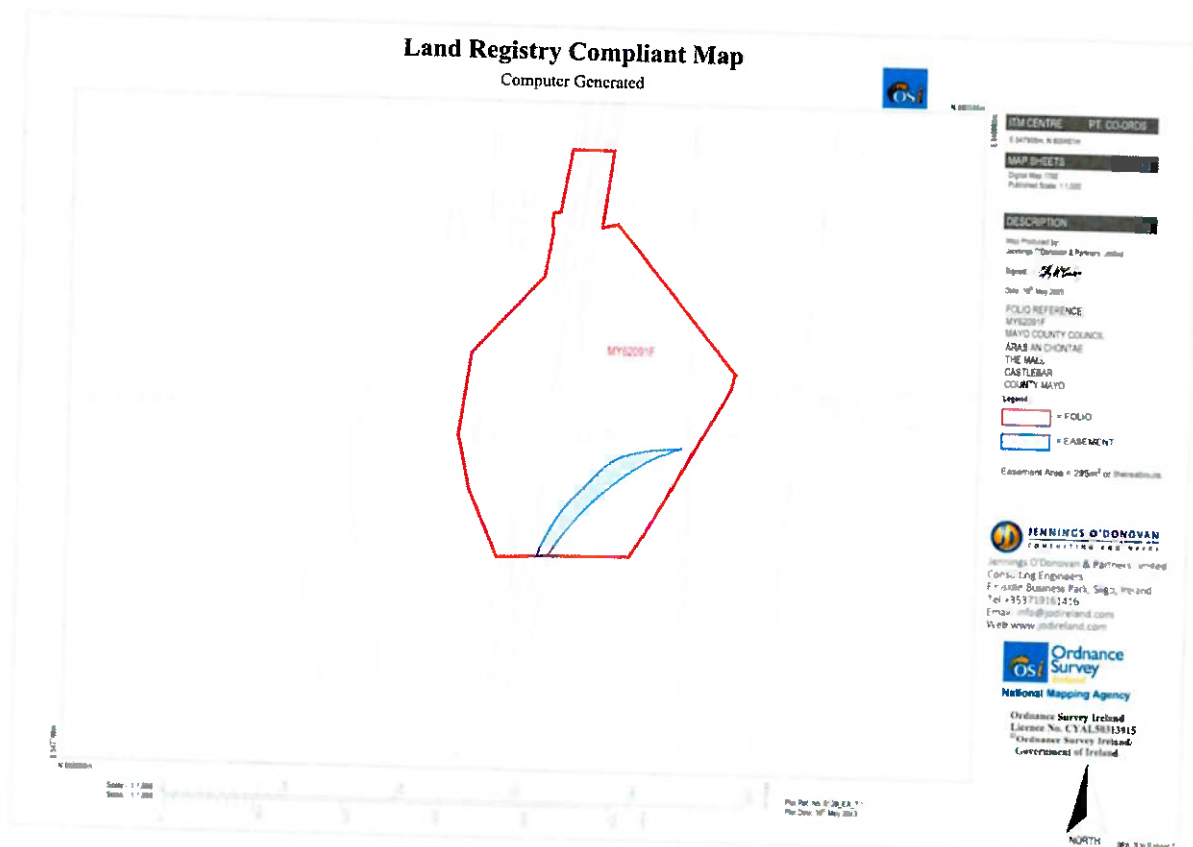
#### 4.1.7 Roundabout Entry Curves

**Problem:** The entry / exit curves do **not** have a uniform radius. Trailing wheels of long vehicles may over-run the verge and drag detritus onto the carriageway surface.



**Hazard:** Following vehicles may skid / lose control on this detritus.

**Recommendation:** Provide a **uniform** radius from the roundabout entry to the exit.



These inconsistencies related to the roads have been highlighted in other submissions and observations.

Locations of the wind farm and the hydrogen plant are continually being mixed up in key documents for example the flood risk management plan from RSK cites the incorrect address of the hydrogen plant giving it as Firlough.

#### **2.4 Failure to address impacts on planned development at site entrance.**

The company failed to acknowledge and address the impacts their development will have on Planning application No 20297 Mayo CoCo. mentioned in my submission which is a family dwelling (local family) due to be built at the entrance of the plant. The number of traffic movements related above will increase noise and reduce safety for the family as well as affecting the price of their home.

#### **2.5 Preliminary Hazard Log (PHL), ISO standards.**

My submission pointed out the hazard log in relation to the development was only a preliminary one. It is concerning given the combustive nature of hydrogen gas that engagement with the HSA to confirm COMAH status of the plant was left to such a late date. This demonstrates a lack of understanding of the nature of the business the company is about to engage in and puts the surrounding homes at risk as the preliminary Hazard log remains

preliminary and must do so until all equipment and safety features such as alarm systems are identified.

My submission listed a number of ISO standards Some specific to the production storage and use of hydrogen gas with a specific emphasis on hydrogen embrittlement. The company has attempted to address these issues between pages 72-74. Hydrogen embrittlement is the leading cause of not only pipe failure but coupling failure and therefore accidents in hydrogen plants the company's response once as follows, *'The preliminary hazard log focused on identifying high level causes such as piping failure, rather than specific reasons like hydrogen embrittlement.'* It should be noted as per my initial submission that hydrogen embrittlement is the leading cause of explosions in hydrogen plants and as I had demonstrated by example in my submission that even when maintenance and safety checks have been carried out and all things in order hydrogen embrittlement can cause quite extensive explosions. See examples cited in my original submission.

It is not unusual in a planning application to be specific about such hazards for example in the case of biogas plants particles 2-5 microns in size and calls wear and tear own gas engines and turbines so screens are fitted to prevent this happening as part of the downstream application. The issue of siloxane deposition on gas equipment is also addressed in biogas planning applications. Siloxane was an abrasive white powder of silicone oxide to be formed on gas equipment problems. Salicaceous deposits on valves, cylinder walls and liners can cause extensive damage by erosion and blockage. Silicon compounds reaching into components using oil can also result in more oil changes. These are an example of some of the reasons that gave rise to causes of health and safety concerns within real gas plants that are addressed and they're planning applications, so it is not unreasonable to expect a plant which main production is hydrogen gas two focus and address the main health and safety concern which is widely known in relation to the production and storage of that gas.

## **2.6 Green and grey Hydrogen.**

While the Mercury response to submissions document states that Hydrogen has been around for 100 years and the dangers in relation to it are widely known and understood, the reason it has not been used to date as a primary fuel source the world over given that it originates from water which is ubiquitous throughout the planet is not expanded upon. The reason for this is its highly explosive nature. It is true to say that Hydrogen in its gas form ( $H_2$ ) is more efficient than crude oil based combustion engines as they burn at a ratio of 20/25:75/80 energy used:heat loss from the engine, whereas as a  $H_2$  burning combustion engine is the converse. It is only true to say that using  $H_2$  as an energy source for HGV engines is of benefit to the environment when the  $H_2$  is derived from a 'green source' so it is concerning when mentioned in the report to read that at times of low wind electricity may be used from the grid as this would mean that the  $H_2$  is no longer 'green' but in fact 'grey' and should be labelled so during these times of production as this is then a high  $CO_2$  based activity as well as adding to the financial cost of production.

A further gross misunderstanding and misapplication is of the term '*renewable*' (pages 67-68). In response to hydrogen efficiency the company mislabels  $H_2$  gas itself as renewable demonstrating a lack of understanding of scientific terms and principles of energy production. Examples of renewable energy are wind, sun, geothermal and tidal as the source is not depleted when used, the energy is simply harnessed. This is not the case of  $H_2$  gas as a significant volume of energy is required to separate the Hydrogen molecules from the Oxygen. Water has a high geothermal capacity as anyone who has ever waited for the kettle to boil will know and although  $H_2$  production an electrical process significant amounts of energy are still required.  $H_2$  gas can go on to reform a water molecule,  $H_2O$ , but this in the first instance was not an energy source itself unless it is under the influence of tidal movement or flowing in a river/waterfall, lakes are passive bodies of water as there is no

gradient. To describe H<sub>2</sub> gas as a renewable energy source is a misnomer, totally incorrect and to further justify its using a geopolitical response i.e. the current war in Ukraine, is a weak argument (page 69). Hydrogen gas produced solely using a renewable energy source such as wind power can be described as 'Green Hydrogen' and by no other name.

It is noted in the description of the project, pages 4-5 that planning is sought for the lifetime of the Hydrogen plant, its substation and grid connection but it is only intended to be a 'Green energy' source for as little as 40 years before moving to a grid connection and becoming the more expensive CO<sub>2</sub> derived 'Grey Hydrogen'

## **2.7 Noise and disturbance to surrounding homes.**

Incorrect location given as site of Hydrogen plant. As with the incorrect road safety assessment and the flood assessment there are many errors in the survey documents, so we are unsure if measurements have been taken from the correct location.

### **11.18 HYDROGEN PLANT**

#### **11.18.1 Introduction**

The Hydrogen Plant is located in Castleconnor, Co. Sligo, approximately 4 km north-east of Ballina, 5.5 km west of the wind farm and within 0.6 km of the N59 National Primary Road.

The noise and disturbance the factory will cause to the surrounding homes was avoided in the response document from Mercury.

As pointed out in my initial submission document they are unable to offer a proper analysis of the noise in this relatively quiet country area as they have not determined the machines they will use.

Examples of noise levels from one piece of each machine have been cited in their application where there will be multiples generating layers industrial noise in an agricultural area.

If it is possible to give estimates for one piece of each type of machinery it is then possible it is not unreasonable to estimate overall expected noise levels for the factory at both 10MW and at full capacity 80MW.

In the response to submissions document Mercury offer no clarification on noise levels the surrounding homes will be subject to at 10MW or 80MW production.

It is impossible to offer mitigation or assess possible impacts if the parameters are unknown or an estimation of same are not offered.

### **3. Conclusion**

While this project represents a positive opportunity to introduce what is termed 'Green Hydrogen' into the Irish energy market it should be noted that we are an under industrialised nation and while the land in question may not have zoning, we must be mindful of location.

It is hoped that this plant will be operational for at least 40 years. Ballina and its surrounds will have developed and the N59 will have become a much busier road as it has become since Ireland has prospered economically over the preceding 40 years.



The proposed location of the roundabout on the N59 is an accident black spot on a staggered of low visibility on a hill with dips and hollows. Imposing such a junction with up to 52 HGV movements as well as 20 staff vehicles will increase the probability of accidents occurring at a time of increasing road deaths in Ireland.

There are many inaccuracies in assessment documents and one of these relates directly to the road audit which was carried out at the incorrect junction.

Geopolitics and the plethora of ever mounting EU and Government policies in relation to CO2 emissions are not a reason for bad planning decisions. We are the custodians of this country on for the benefit of future generations and it is incumbent on us to ensure planning laws are enacted correctly, adhered to no matter the pressure and that further environmental disaster is averted by ill thought-out planning.

The applicants have failed to consider the impacts this development will have on the home of a local family which is to be built at the gate of the site. The home was devalued before it was built by the submission of these plans.

The applicant has failed to demonstrate that the noise from the factory will not affect the surrounding homes as an overall estimate of noise level based on amount and type of equipment to be used was not offered. The location for the noise test was incorrect.

Áine McCann.

17/01/2023