

The Secretary,  
An Coimisiun Pleanala,  
64 Malborough Street,  
Dublin 1 -D01 V902.  
24<sup>st</sup> October 2025

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29 OCT 2025	
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Time: 9.15	By: post

**An Bord Pleanala Case Reference: PAX91.323635**

**Garrane Green Energy Wind Farm – Located in the townlands of Garrane, Ballinagoul and Creggane Co. Limerick.**

A Chara,

I, Owen Culhane, residing at Garrienderk would like to object to the proposed construction of 9 wind turbines type Vestas V150-6.0MW, hub height @ 95 mtr with 75 mtr. wing span, overall Hgt 170 Mtr . and ancillary works namely – access trackways, permanent electrical 110kV substation, 2 bridges, permanent met. mast up to a height of 60m, 2 interface masts ,6 no.depository storage areas, 2 construction compounds with associated site offices & parking areas at Ballinagoul,Creggane and Garrane by Gurrane Green Energy Ltd- AKA Greensource Ltd.

The basis of my objection is as follows: My home and farm are located 600mtrs. from the proposed site entrance on the Ballinagoul 1537 road. The proposed turbines with a tip height of 170 Mtrs.are located very closely to nearby residents, and would be visually overbearing for all residing in this area. My concerns also relate to both the immediate environmental consequences and the long-term implications for future development in this area. The proposed site is a low lying, open and exposed landscape of agriculture land which is part of the Golden Vale and the Dairy industry. The construction of these 9 turbines in this area would irreversibly damage and significantly alter the natural character of the land, which is rural unspoilt countryside full of wildlife and birds

#### **Lack of adequate public consultation**

There has been no opportunity for local residents, particularly those living closest to the proposed development to meet and engage, voice any concerns and get answers to any queries relating to said development.

I note from the Code of Practice for Wind Energy Development in Ireland 2016 (Guidelines for Community Engagement), the approach and level of engagement should reflect the nature of the project and the potential level of impact that it could have on a community. Residents living within 600 metres of one of the proposed turbines and 110 V sub-Station plus the access roadway has had zero communication with Garrane Green Energy (GGE). There are 166 sensitive "receptors" within a 2 km radius of this project. In their mission statement they wrote *"We are pleased to begin consultation with you about our proposals for the Garrane Green Energy project."*

*"We recognise that communities neighbouring wind developments play a vital role in supporting the generation of green energy. As part of our community engagement process, we are committed to holding open and meaningful discussions with residents"*

*and interested parties. the feedback we receive will help shape and refine the project*  
“ .....fine words indeed.

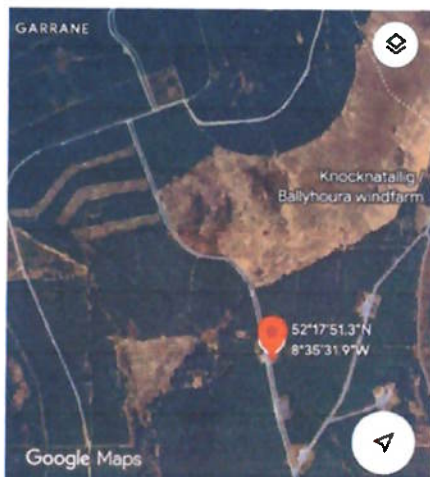
In section 2. Statement of Authority GGE state that there are 166 receptors within 2 km of the proposed turbines. The receptors in this case include 3 no. commercial properties 6 no. derelict houses and 157 no. resident dwellings of which 5 no. are involved in the project – indicating that the 5 landowners are all local. GGE came into our townlands by stealth approaching five landowners in secret to sign over their land or part of (two of which do not live in this area, and a further two are distant from the proposed Wind farm) whose names were only released in redacted Landowner agreement in the planning statement to An Coimisiun Pleanala.

They also offer Community Benefit fund for local clubs and amenities for their support and silence, even approaching individual “receptors” with monetary inducements. .... This regime of secrecy, only testifies the Garrane Green energy policy of “Divide and Conquer “ Their intrusion into our townlands has caused division between our



neighbours and friends

Most of our community only found out about this development at the end of July and then they advised the proposed Wind Farm project is to be located in the townland of Garrane Co Limerick. this is a minor townland (500 +acres app.) in this area with other townlands bearing the same name in Limerick – one of which is in the Ballyhoura area in which a Wind turbine already exists.



Location of existing Wind Turbine at Garrane.on the Ballyhoura Hills

Ballinagoul and Creggane townlands are double in size as Garrane and better known locally – by using the name of Garrane a lot of locals did not immediately understand the implications involved to their homes and farms. It should be also noted that while wind farm

companies have years to plan a wind farm, residents have only a short timeframe to review and raise queries, seek expertise and advise. The onus is on us the concerned residents to react, research and understand the implications of the approx. 1000-page portfolio/ submission of information supplied by the developer. In their statements of authority, they reference various consultants, and experts for various aspects of their well-prepared submissions whereas we can only rely on mainly local knowledge and strive to understand a document full of acronyms , formulas , statement of authority , of renowned consultants with findings that always conform to favourable impact assessment, under the guise of Guidelines, Mitigation, Predictions, Potential effects ,Statements of Significance, Moderate and Best Practice! .

There is no mention of Regulations or Legislations.

It seems to me their attitude is ....the end justifies to means and they have might on their side..... but we have right on our side.

### Environmental concerns

There is a real risk of damage to Aquifer and in turn risk of contamination to private wells. Once the aquifer is damaged/contaminated, it can't recover! There is a risk of contamination of all local streams and drains. The proposes site is in a flood plain consisting of local streams that flow into the Loobagh and Maigue rivers. (Climate projections are for wetter Winters due to the La Nina phenomenon can only have a knock-on effect on the flood plain ) This area also contains warm springs similar to those at the foot of Knocksouna Hill – surveyed in the late 1980s. (An investigation of low Enthalpy Geothermal Resources in Ireland by P.M. Bruck and F.X. Murphy – Dept of Geology UCC sec 2 to 5 – the Ballyngoul Springs). The construction process, including excavations and use of steel / concrete can pose a risk to local watercourses through runoff and pollution. The construction of this wind “farm” will disrupt local ecosystems and habitats affecting flora, and fauna. The river Maigue flows less than 80mtrs. from Turbines 07 & 09 while Turbiner 2,3 ,4,5 & 6 will be positioned close to the Loobagh and other tributaries.

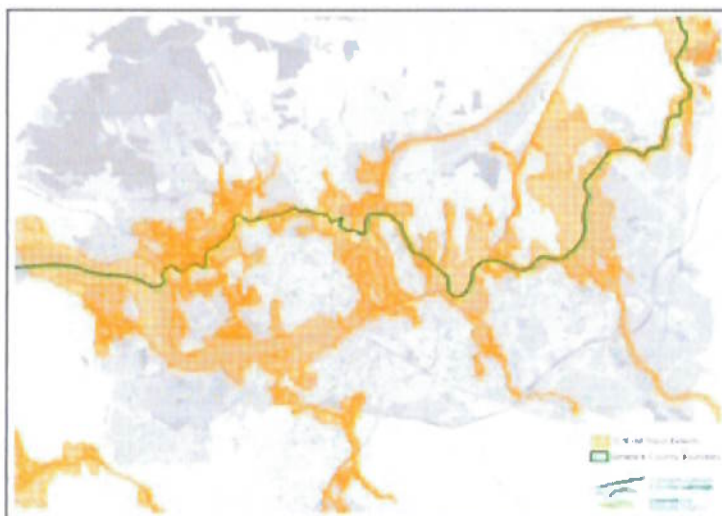


Figure 6 – CFRAME Data – Extents of Flooding in the City and Environs

In Garrane's Planning Statement of Authority section 2.2 – Site location and context, they state "the general area is comprised of agricultural pasture grazing farmland and the site is located on relatively level ground at elevations ranging from 58-61m above ordnance datum (AOD). The site itself is flat, located in lowland plains on the banks of the River Maigue and River Loobagh. The River Maigue is the closest river traversing centrally through the site, 80m from the nearest turbine. Agricultural farmland is the dominant land use, used predominately for stock grazing, with a comprehensive system of hedgerow vegetation."

Garrand now propose to turn this Agricultural Plain in the Golden Vale into an industrial site, installing nine Vestas V150-6.0 MW turbines @ 170+ mtr plus associated infrastructure which will be a blight on the landscape, which by their Statement of Authority should indicate the total unsuitability of this region. They compound this fact by size and number of turbines they wish to pack into this narrow area to qualify as Strategic Infrastructure Application (SID).

It is less about nature and all about them! i.e. Garrane Green Energy Ltd.

It should be noted that if planning permission is granted, developers have a history of applying for an increase in height, size and numbers and there is also no guarantee that the proposed positions of the Turbines will be maintained. **Mitigation strategies may be necessary due to wind turbine wake causing a loss in efficiency due to current proposed positioning!**

#### **Visual Impact** on the landscape considering the sheer size & scale of development -

The propose development will create a serious impact on residential amenity, visibility from dwellings, view to turbines across open land from dwellings also visual impact on scenic amenity of the area which includes Knockfierna to the east, Knocksouna to the west, Ardpatrick to the south with the Historic areas of Bruree & Kilmallock in the locality all part of the untouched landscape that these townlands possess.

In section 12.3.9.2 – Scenic Designations, on Z.D.T patterns they state that Tory Hill and Lough Gur "should be investigated further". they also state that areas like Charleville, Bruree will only suffer moderate visual impact while Garrienderk North at 2.4 Km will only experience slight visual impact even though it is across the road from the site entrance!

**Construction Assessment** – construction times Monday to Friday 07.00 to 19.00 hrs and Saturdays 8.00 to 13.00.

Construction traffic - resulting in 120 loads of concrete and 240 truck movements for each turbine in a ten-hour period- this Garrane states equates to 24 movements per hour. There will also be the trucking of spoil being carried out – frequency not quantified. All this traffic will cause chaos on a small country byroad not to mention gridlock at H89. They also state that due to the smooth surface of the road surface there will be minimum noise and vibration during the construction phase. Currently during wet weather there is serious flooding on sections of route 1537 – so the smooth surface is only wafer thin!

Increased risk of construction traffic & heavy machinery with uncovered loads (dust hazard) on local access roads and passing through a current congested town of Charleville, turning left on main street before having to make a sharp right-hand turn



to access the Ballinagoul road and entering the site on a narrow right-hand bend on route 1537 – which is adjacent to a dwelling entrance H89 which will cause serious distress and disruption during construction ( 240 trucks per day plus outgoing spoil movements at entrance to H89) plus subsequent ongoing interference - to the extent that this family will consider moving out from their home of many years suffering major loss both mentally and monetary. This however is not considered in either chapter 17 – Traffic and Transport or chapter 11- Noise and Vibration which concludes in their Statement of Significance (SOS)... Noise during construction of the project and decommissioning will be managed to comply with best practice, legislation and guidelines current at the time so that the effects are not significant.

The proposed exit route also contains a narrow 3 arch bridge and numerous right/left -handed bends- not outlined in their submission. navigating over a seven-arch stone masonry Mague bridge (protected structure) in transit through Bruree village. Garrane have planned for a one-way traffic management, but this will depend on from which the source of the construction material will originate and also the spoil material will be destined – all via the narrow and totally unsuitable route 1537 and also through the main street of Charleville.

Electromagnetic interference - will there be disruption to phones/TV/internet coverage?  
- this is not covered

There is a risk of damage to the Gas Distribution Line (80 bar Pr.) running parallel to the proposed wind farm and its proximity to the 110V sub station is alarming.

Other factors to be considered

#### **Blade-tip noise:**

The interaction of blade tips with the wind can generate high-frequency noise, including ultrasound, especially with certain blade designs or defects. Generally, the guideline distance between wind turbines is calculated at between 5 – 8 times (depending on wind direction) the rotor diameter to avoid downstream turbulence. Generally, the Garrane Turbines are less than 400 mtr. apart! This however could be modified as current turbine hardstands are liable to be moved to suit the construction best practice.

The rotational frequency of the rotor and its harmonics can contribute to vibrations that might lead to ultrasonic emissions., also from the electronic machinery in the nacelle section. There is evidence from people living and working near wind farms, that vibration of the rotating turbine blades produces infrasound noise that affects the body like the beat of a base drum. This can cause disturbed sleep, raised stress levels, heart palpitations and tinnitus not to mention the local farmers who are expected to carry out their daily duties in this agricultural area of the Golden Vale. I have visited the turbines in the Ballyhoura region and have experienced this phonomime.

#### **Effects of low frequency Ultrasound- On bats:**

Some studies show that ultrasonic deterrents emitting sounds at frequencies between 20 and 50 kHz can reduce bat fatalities at wind turbines by altering their flight behaviour, particularly for certain bat species. This is a typical green energy response. rather than do what is best for the bats and stop industrializing their habitat they exclude the bats as if they are the problem. Out of sight – out of mind. Because wind turbine blades displace so much air as they spin, they create a pressure drop in the air behind them so drastic it pulps the eardrums and

cardiovascular system of bats passing nearby. In other words, their eardrums, lungs and hearts explode. technically, this is called barotrauma, but more accurately, it should be called an atrocity.

The importance of the existence of Bats in this locality is borne out by the establishment of Bat Rehabilitation Ireland by Susan Kerwin in Bruree

### **Primary Concerns for locals**

#### **Audible noise:**

The low-frequency, "swishing," or "thumping" noises from turbine blades are more likely to cause annoyance and affect sleep. This effect is known as amplitude modulation (AM) caused by blade passing frequency (BPF) which is the turbine rotational speed for a typical three-bladed machine. While regular AM is a natural characteristic of a wind turbine sound, excessive amplitude modulation (EAM) can be more annoying to nearby residents with its sound pulses occurring three times for every rotation - its cause and effects being a focus of ongoing research and measures.

#### **Infrasound:**

This is very low-frequency sound, outside the range of human hearing, which can also stimulate the ear and brain, potentially causing adverse effects in some individuals. It can also disorient bats in transit and cause them to fly into the blades

### **Negative Health effects on local residents**

The negative health effects of wind turbines on local residents have been well documented all around the country. The current Wind Energy Development Guidelines were introduced in 2006 at a time when the average wind turbine was approximately 50 - 65 metres high. They also suggest a setback distance of 500 metres from a proposed turbine. These guidelines are no longer fit for purpose given that a huge proportion of turbines being erected now are between 150 - 190 metres in height.

Delays in updating guidelines for wind farm development have now led to suspicion and distrust regarding the planning process.

Section 11.2.3.5 GGE quote the most recent WHO 2018 Guidelines as well as data from RPS "it is reasonable to conclude from both these calculations that the annual average noise output from wind turbines in Ireland will be sufficiently lower than the maximum rated sound power to be consistent with the WHO guidelines and conclude. "Based on this we consider that compliance with the limit levels in the WEDG is consistent with the WHO guidelines "

In fact, the World Health Organization published their guidance on wind turbine noise, to recommend that noise levels should be below 45(dB/den) to minimize potential health effects such as stress and sleep disturbance. Though the WHO's evidence on health effects is limited, these recommendations are based on available data and are a precautionary measure.

Interesting that their Operational Noise Assessment section 11.7.3 /Table 11.18 : *Margin between Predicted noise level and 43 dBA noise limit* , only mentions H28 (Developer) and H9 as two noise sensitive receptors even though as previously mentioned in their submission 29 other dwellings in same area are conveniently < 43 dBA. This margin is too close to be of any comfort and is not convincing in any manner of speaking!

Note 1 : GGE advise that the Hub Height selected for their V150-6.0MW is 95 mtr , which they seem to have selected for EIA purposes, whereas the Vestas Web page gives the Hub height for this machine @105/125/155 m

Note :2 Table 11:3 The specified dB rating for the V150-6.0 MW @ a wind speed of 8ms is 102.7dB -how is it possible with mitigation etc. to attenuate the predicted dB rating for example at sensitive receptor H13 @ 40.4dB which is 780 mtr. approx. from T1

It seems that the sound power ratios of this machine (104.9 dB measured at 150mtr and 12ms) are never considered and generally removed from any assessments, and concentrating only on tonal noise from blade sweep etc...

The *current* regulations of minimum distance and dBA regulations are totally inadequate as demonstrated in recent debates on legislation like the Wind Turbine Regulation Bill 2025 which is currently before the Dail, but because of the inaction of the current legislators it is unlikely to proceed and leave us 'victims' in limbo

**There has to be more to our countryside than the opportunist exploitation of where we live and our local habitat.**

There is also concern of the probable loss of value in property assets due to the industrialisation of this low-lying landscape. These turbines will tower over us as they will be less than half a Km from some of our houses. The prospect of shadow flicker in our home from Day time (due to their excessive height) The shadow of the low setting sun and also the effect on the natural light is frightening.

IF Garrane Green Energy obtain permission to proceed with this wind farm – who will take responsibility for the health implications that these turbines will have on the local residents, the sleep disturbance, the stress and anxiety, noise pollution, vibration and shadow flicker, the infra sound which is barely audible but penetrates homes and is particularly detrimental to children with autism.

**Not** Garrane Green energy – with their best practice guidelines, mitigations and Statements of Significance (SOS) which understates the overall impact on the local environment and its population

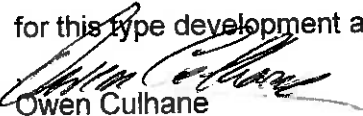
**Not** the local farmers who with the promise of remuneration handed over the control of their properties for a minimum of 35 years, with extension options.

**Not** the local /national politicians who promoted their Climate Action Plan 2024 instead of insisting that these Turbines should go offshore.

**Not** Coimisiun Pleanála - who ignored the local concerns and granted permission, based on out-of-date guidelines and in the absence of proper regulations and legislation.

We will stand alone and suffer with the other townlands that these monstrosities were imposed on us and left to ask ... **How Green was our Valley**

For these reasons set out above, I request therefore that Ballinagoul, Creggane and Garrane and its surrounding environs in Co. Limerick not be designated as acceptable for this type development and refuse planning permission .



Owen Culhane  
Garrienderk,  
Kilmallock,  
Co. Limerick

€ 50 cheque enclosed as per submission fee required



## Technical specifications Vestas V150 – 6.0 MW

### Power regulation operational data

	Pitch regulated with variable speed
Rated power	6,000kW
Cut-out wind speed	3m/s
Cut-out wind speed	25m/s
Wind class	IEC S
Standard operating temperature range	from -20°C* to +45°C

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**SOUND POWER - Maximum 104.9dB(A)\*\***

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### ROTOR

	<b>Rotor diameter</b> 150m
	Swept area17,672m <sup>2</sup>
Aerodynamic brake	full blade feathering with 3 pitch cylinders

### ELECTRICAL

Frequency 50/60 Hz

### TOWER

Hub heights **105 m (IEC S), 125 m (IEC S/DIBt S), 148 m (DIBt S), 155 m (IEC S) and 166 m (DIBt S)**

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