

Dear Ms Papaleo,

We would like to address the concerns outlined by a Frizington resident regarding Planning Application 4/23/2198/0F1 – wind turbines Frizington. Some of the details contained within the letter from the concerned resident are inaccurate which we have detailed below. We have also provided additional information which will hopefully address some of the concerns. And finally, we would also like to take the opportunity to rectify a couple of errors which have been identified in the information our agent submitted.

Viewpoint 8, as shown in the Landscape Visual Assessment (LVA), does show an arrow denoting the proposed site as being further to the left than it should have been. We are confident that this was human error and not an attempt by our agent to misinform. We would like to point out that the road is private with no public access and therefore members of the public would not be affected by the arrow being further to the right at this viewpoint.

Please see below a photo taken from further along Park Street as requested by the concerned resident. This is the last point before the A5086 that the site is visible from before houses obscure the view. As can be seen, the hedge and associated trees obscure the view.



We would like to challenge the point the concerned resident makes regarding the view residents of Park Street and Frizington Road have of the Ennerdale valley. It is first described that they “.... overlook the untouched and characteristic natural landscape of Pillar and Ennerdale Fells....” But they then go on to say that the same residents have “.... viewpoints which look directly over to the farm....” This means their current view of the Ennerdale valley is already interrupted with man-made features. The erection of two micro-wind turbines will not alter the untouched and natural landscape of the Ennerdale Valley as they will be sited in Frizington not Ennerdale. The concerned resident also mentions that those living on Park Street or Frizington Road overlook a Special Site of Scientific

Interest (SSSI). We assume they are referring to the River Ehen (Ennderdale Water to Keekle Confluence) SSSI; which was designated an SSSI due to having “outstanding populations of the freshwater mussel....” and not for the aesthetics (Natural England, 1997). We can assure the concerned resident that the proposed micro-wind turbines will have zero impact on this SSSI.

The concerned resident more than once mentions the impact on the view of Pillar. However, there is no line of sight from Park Street or lower Frizington Road to Pillar as Crag Fell obscures the view. You must move further north before Pillar is visible in the Frizington area by which point the proposed turbines will no longer be in the line of sight.

Photomontages were not undertaken as, unlike the concerned resident states, it is not a mandatory validation requirement of the planning application. Whilst we appreciate that the use of photomontages may have been beneficial for the application as it may have allowed residents to visualise what a small turbine with a hub height of 15m would look like against the surroundings, the cost of doing so would have made the application unviable. It is interesting to note that the concerned resident mentions that the lack of 3D site drawings mean they are unable to get an idea of scale within the proposed location but is able to assert several times that the proposal is unsympathetic and intrusive. To give the concerned resident an understanding as to how a 15m hub height turbine sits in the local environment we would like to take this opportunity to document a couple of micro-wind turbines with a hub height of 15m sited in the local area, one of which is within the Lake District National Park, and the distance from which the photo was taken has been calculated using the Mapulator app.



Turbine 1 – Wath Brow RLFC



Turbine 1 – Photo taken 264m from the turbine.



Turbine 2 – An SD6 turbine (The same make and model as we are seeking planning permission for) taken from Armaside Farm, Lorton, Lake District National Park.



Turbine 2 – Photo taken 331m from the turbine.

To address the comment made about trees in the vicinity, we can confirm the Sycamore trees pictured in Viewpoint 8 of the LVA are 13-14m tall and have a base diameter of 60cm. The Poplar trees to the south-east of the proposed site are an average of 24m tall with a base diameter of 38cm. Tree heights were determined using a clinometer. The base of the micro-wind turbine has a diameter of 60cm and a hub height of 15m making it no more obtrusive than the trees nearest to the proposed site. Height does not instantly equate to something being obtrusive, width has as much if not more to do with it. Therefore, the comparisons mentioned of the average height of a two-storey dwelling is irrelevant as the width of a dwelling is not comparable with the width of a micro-wind turbine. The photos above also demonstrate that the turbines will in no way be obtrusive. It should be noted that the turbines we are seeking permission for are grey and as a result will not stand out on the landscape like the white turbines in the area. With a tip height of 17.8m, the micro-wind turbines we are wanting to install are a fraction of the height of the white turbines that can be found throughout the county, which range from 34m up to 100m at tip height.

Reference is made by the concerned resident to the refusal we received in 2006 for planning permission for an agricultural dwelling, where they suggest that the plans for the dwelling “had to be modified to minimise landscape impact.” We would like to point out that this was never the case. Our original plan was for a one and a half storey dwelling but this was refused by the planning officer at the time as it did not fit the typical design of farmhouses in the area, namely a full two-storey square box with a roof. We did not have to modify anything. We put forward a proposal for a one and a half storey dwelling to have minimal impact on our neighbours through a more sympathetic roof line with the buildings already on the farmstead. We have done the same with this application for two micro-wind turbines. Rather than opting for a single larger turbine we have put forward an application for two smaller turbines, as to minimise the visual impact, despite this being the more costly option. If this application fails, we will wait for planning policy to change and then re-evaluate as to whether we apply for a single larger turbine or re-apply for the same two smaller ones.

The concerned resident argues that the erection of two micro-turbines will negatively impact tourism to the Ennerdale area. We just do not see this happening. The photo below was taken from the forestry track heading towards Heckbarley, which is on the western fringe of the Ennerdale fells. It proved extremely difficult to pick out the farm which covers 1 ha of ground. Based on this, we believe that the two micro-wind turbines we’re seeking permission for will not deter tourists to the area.



We would like to take this opportunity to correct a typing error within the Design & Access Statement. In it, the annual on-site demand for energy is stated as being “around 80,00 kW/year.” This should read as around 80,000 kW/year. As the concerned resident has pointed out we do currently have solar PV panels, which last year produced just under 23,000 kW, this is in addition to the 80,000kW purchased annually. The concerned resident then goes on to suggest we would be able to increase our production of renewable energy by installing more solar PV panels. Unfortunately, this has two issues; the first being that production is not evenly distributed throughout the year. Currently only 8% of production occurs between October-December inclusive, 14% between January-March inclusive, with the remaining 78% of production occurring between April-September inclusive. We would have to add significant further solar PV panels to make a meaningful contribution for our energy usage through the winter months. Which leads us on to the second problem with expanding our solar PV system; significantly more energy would be produced through the summer months than we would be able to utilise, even with an investment in battery storage, as this just smooths out the balance between supply and demand in the short term. The micro-wind turbines will complement the solar PV as they generate electricity through the night when we have significant demand, plus more wind occurs through the winter months making up the gap left by our solar PV panels.

Unfortunately, the concerned resident is incorrect in stating that any excess will simply be sold back to the National Grid. We only have a single-phase connection and as such can only export a maximum of 4kW. We therefore intend to invest in battery technology alongside the two turbines. We are also not undertaking this project with a desire to produce cheap energy as was suggested by the concerned resident. The combined cost of the turbines and batteries will take 20 years to break-even based on 30p/kWh, this would be even longer if maintenance and interest charges were factored in. Rather primarily we are doing it to become more sustainable as we move as a country towards net zero. Should the energy price rise this will bring the payback period down for example a rise to 40p/kWh results in a payback period of 15 years which still makes it a significant long-term investment.

There will be benefits to the wider community, all be them rather nuanced, but this should not detract from their importance. Firstly, this project for renewable energy and others like it all over the country will both help the nation become more energy secure and also help the country on it's journey to becoming net zero. As highlighted within the Planning, Design and Access Statement, the National Planning Policy Framework (NPPF) states that the planning system should support the transition to a low carbon future in a changing climate. Secondly, the concerned resident and anyone else purchasing electric from the grid will benefit from lower energy bills as this project along with many other renewable projects throughout the country will be reducing demand for electric from the grid, with some projects also adding to the grids supply. Thirdly, this project will give the farm resilience of improved energy security and any potential future price spikes. The importance of us being able to be resilient should not be underestimated. We are a small family dairy farm who have managed to stay profitable through each milk price cycle when others have left the industry. If we go the same way as many others in the area have over the years and leave the industry, we will in all likelihood find ourselves disbanding the dairy herd and using our ground to contract farm for one of the much larger dairy units in the area who will move forage off this farm and bring manure on, thus significantly increasing agricultural traffic in the area.

Regarding the ecological impact, we would like to reiterate the point made in the Planning, Design and Access Statement that the turbines would be sited on improved grassland. Unlike unimproved grassland with its tussocky grass, improved grassland has low species diversity and as a result a low density of prey for raptors and owls. We would also like to point out that Mowbray Farm has not kept hens for over 2 years now, so is not the rich source of mice as suggested by the concerned resident. We are not aware of the disused former mineworks that the concerned resident references regarding breeding barn owls. There are no such buildings on our land. The concerned resident mentions that they believe that bats will inevitably be disturbed by the instillation; the turbines are required to be sited at least 50m from hedgerows. This is because bats use hedgerows to navigate and positioning turbines at least 50m away from such features ensures bat behaviour is not disturbed. We can also confirm that, in over 40 years of carrying out maintenance work on the farm buildings, we have never found any evidence of bat roosts.

The concerned resident cites the scientific paper by Rabin *et al* (2006) in their assertion that wind turbines disrupt the behaviour of squirrels. The paper looks at how 100kW turbines affect the behaviour of the California ground squirrel in California. The paper discusses how these California ground squirrels are social animals using acoustic communication to warn each other of danger. This paper has no relevance to our situation. Red squirrels are solitary animals and are of a completely different Genus to the California ground squirrel. Also, the turbines we are seeking planning permission for are a fraction of the size of those mentioned in the paper. The concerned resident cites a second paper by Schöll and Nopp-Mayr (2021) which is a literature review looking at the impact of wind turbines in shrub- and woodland areas on woodland dwelling wildlife species. Again, not relevant to this situation as the proposed site is surround by improved grassland not shrub- and woodland. The paper also does not mention what size of turbine the research relates to.

We hope that the concerned resident finds the information we have provided above reassuring and it will allow them to make an informed opinion on the proposed development.

Yours Sincerely,

The Partners of J Jackson & Son

References

Natural England. 1997. Untitled. [On-line]. Natural England. Available from <https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/2000147.pdf> [Accessed 30 Nov 2023]

Rabin, L.A., Coss, R.G. and Owings, D.H. 2006. The effect of wind turbines on antipredator behavior in California ground squirrels (*Spermophilus beecheyi*). *Biological Conservation*. **131**. 410-420

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