

Bretherton Energy

Fourth Bi-Monthly Update – March 2023

1. Introduction

GA are circulating this fourth bi-monthly update to all those who attended the launch of “Our Mutual Journey to Net Zero” at Plocks Farm on 20th May 2022, to keep you fully informed as to what is happening.

This is an update note produced by GA, and confirms the position as GA understands it to be, and does not purport to be the views of any other party.

2. Working Party of Bretherton Parish Council - Consultation

The results are in and the published analysis undertaken by Locality is also attached, as a separate pdf.

A total of 292 questionnaires were delivered, 101 were completed, being a 35% response. The analysis details the response to the questions raised. The consultation raised a number of further questions, and we detail below the answers to those questions to help explain further how the proposal is intended to work. These same questions and answers will be contained in the Bretherton Newsletter being circulated on 27th March 2023.

Questions and Answers to points raised in the Locality Consultation

i) The Scale and Visual Impact

“I need to understand the visual impact of the wind turbine on the area. I had no idea the turbine was 150m high.”

At this stage a single turbine is proposed, being 130m to the central Hub. The tips of the three blade rota will rise to 200m in height. A photo montage, of the completed site from Red Bridge, Eyes Lane, can be seen on www.brethertonenergy.co.uk.

“Seeing what the proposed solar structures would look like on a map/location of the 80 acres would be helpful.”

A plan showing the solar panels and wind turbine can be seen at www.brethertonenergy.co.uk. The solar panels face to the west and east, rather than the normal south facing, as this enables more sunlight to be captured during the day and also spreads the intensity over the whole day, rather than just in the middle of the day.

The area beneath the wind turbine blades is free from solar panels, as ice can form on the wind turbine blades, which can then be released from the blade as the ice melts and can damage the solar panels beneath.

“But what about the people who live near the wind turbine? The noise and how ugly will it be?”

The noise generated by the Wind Turbine, when measured from a distance of 600m away is under 35dB, to give a comparable example a typical library or bird call is generally around 44dB. All residential properties are at least 600m away from the turbine. The photo montage shown on the website www.brethertonenergy.co.uk shows a view of the completed Asland Walks Energy Park from Red Bridge looking north as it will appear in year 2038, being 14 years time. The tree planting undertaken during the Spring of 2023 will screen most of the solar panels when established, as shown in the photo montage.

ii) **Concerns on the Environmental Impact of the Scheme**

“Solar field - would it be fenced off? How would it affect wildlife? How might it affect surface water drainage?”

Yes, the solar panels will be fenced as theft of the panels is a major concern. In addition, in the most vulnerable areas, there will be a ditch and tree planting to help limit and prevent unauthorised access. However, the current footpath along the River Douglas, and the towpath along the canal will be widened to provide better access, and encourage the wildlife to flourish.

The area between the solar panels will be sown to grass, and grazed by sheep, providing a much improved wildlife habitat rather than the current arable field, in addition to the landscape planting of some 25,000 woodland trees will assist the creation of an improved biodiversity.

The open ditches created to restrict access, will also improve the surface water drainage, supporting the existing underground field drainage.

“It would be good to have an understanding of the actual extent of public access (Asland Walk)”

The website www.brethertonenergy.co.uk shows the detailed planting scheme and the exact width involved, but generally the access along the towpath will be widened to 8m from the canal bank to give more area for public access, with a further 11m wide woodland planted area for approximately half the length of the canal, with a Hawthorne hedge along the remainder.

Likewise, along the westerly bank of the River Douglas, the footpath will be at least an 8m wide running along the top of the embankment, with woodland planting and a hedge to the west to limit direct views of the solar panels to the west when walking along the footpath on the embankment.

A visitor “interpretation hut” will be placed at the northern end of Asland Walks. This will give full details of the sites history, live reporting of the energy being generated, and 360° views from the hub on the wind turbine giving views over the south west Lancashire plain.

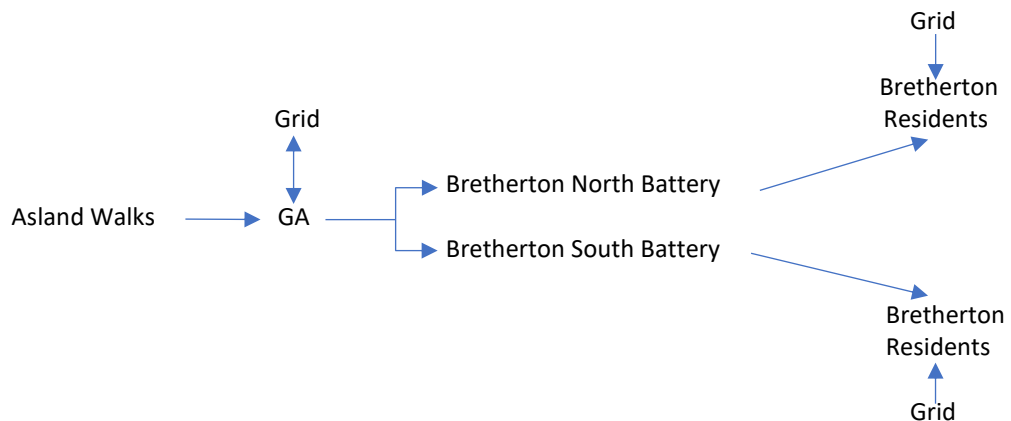
iii) **Clarity on who benefits**

“The benefit to the parish and the certainty of said benefit is not explained simply and clearly.”

A simple explanation is as follows:-

1. It will take 5 years to get planning permission, and then a further 10 years to build out the wind and solar costing a total of £30m, all of which will be paid by GA.

2. Bretherton Energy, a community owned company, will receive 5% of all the electricity generated from the site, at no cost, as soon as it starts to generate electricity, which can be sold or used directly by Bretherton residents having passed through a battery, so there is a “break” between the electricity Grid and electrical energy from Asland Walks.
3. Electricity will initially be sold at the wholesale market rates to the Grid (or GA). This will allow income to build up within Bretherton Energy to be able to buy the battery which may cost £2.7m when fully operational.
4. To allow Bretherton Residents to use this physical energy (which is worth some five times more to residents themselves, than the money received when sold to the Grid), it will require two batteries, one to charge and one to discharge, so there is no physical electrical connection between the Grid and the private wire connection from Asland Walks.
5. As Bretherton is fed from two electrical networks, it will require two batteries to feed the whole of Bretherton.



6. The batteries closely monitor the meters installed within the homes of Bretherton residents who are members, and then releases to the Grid, a predicted amount of electrical energy required to match the consumption by Bretherton Residents. When complete, the 5% of the generation from Asland Walks, will amount to twice the current electrical consumption in the whole of Bretherton, allowing capacity for residents to convert from fossil fuels to electrical energy for heating and charging their electrical cars.
7. When the batteries do not have sufficient power, then electrical energy will be provided by the Grid, as it currently does. The appointed Electricity Supplier will charge the current rate from the Grid, and a lower rate from Asland Walks that is fed into the Grid via the two batteries.
8. The whole project is administered by Energy Local Bretherton, a new community owned and managed company that is supported by the National Organisation Energy Local, who currently have 21 other similar schemes, but this will be their largest scheme to date.
9. When the site is fully operational, if all of the electricity is sold to the Grid (or GA), it is estimated to raise between £300,000 and £400,000 worth of income. If residents receive all this electrical power directly, it will displace electrical costs of between £1m and £1.5m for residents of Bretherton, being approximately £2,000 per person, depending on electrical cost, taxes and levies being incurred at the time. The wind turbine and solar panels will last for 25 years, after which time the planning permission will require its complete removal.

“How would you supply everyone in the village? There is more than one electricity power source. Will it include homes on the outskirts?”

The Bretherton Grid is fed primarily by two primary distribution points, being Bretherton North (south of North Road) and Bretherton South (behind the school on South Road). It will require two double battery systems at each point (to allow one to be charged and one to discharge the electrical energy) to feed the vast majority of homes throughout Bretherton.

Barrowford House and Red Bridge Farm to the south of Asland Walks are powered from a separate network, so will require a separate dedicated feed from Asland Walks so they can receive similar benefits as all other residents. It is intended that all residents will have an equal opportunity to join the scheme, but there will be no compulsion.

3. **Tree Planting**

Tree planting has continued during January, February and March this year, but due to the dry weather, Steve Wignall from Bretherton, has only been able to complete the southern areas, being the most sensitive areas adjacent to Red Bridge Farm and Barrowford House.

However, the planting adjacent to the canal does show the 8m access strip that will be a permanent maintained feature along the canal, giving improved public access along the tow path of the canal.



Photograph showing recently planted trees and shrubs, set back 8m from the canal side.

4. **Lidar – Wind Direction and Wind Speed Monitor**

The photograph below shows the enclosure placed on the field. This continually monitors the wind speed and direction across the various heights. This will continue for 2 years and will determine the optimal size and diameter of the wind turbine for the site, based on the average wind forces measured.



5. **Assessments Update**

We update the current position on the ongoing assessments:-

i) **Ecology – Wild Bird Survey – Winter Ground Feeding**

Avian Ecology continue to survey the site. This will continue until April/May 2023, and resume again for a further year in October 2023 to May 2024.

ii) **Culture and Heritage Assessment**

Pegasus Heritage are preparing the formal GIS compliant photo montages showing the impact to formally protect listing buildings such as Bank Hall and St Mary's Church, Windgate.

In the interim an "Artist Impression" from Red Bridge, Eyes Lane, looking north will be available on 27th March 2023, and displayed on the Bretherton Energy Website www.brethertonenergy.co.uk, showing the appearance now, in 2028 (5 years) and 2037 (14 years) when Asland Walks will be fully developed.

iii) Aviation Risk Assessment

BAE Systems who operate Warton Airfield have advised that they now require us to access the Airfield's Safe Sector Altitudes and Instrument Approach Procedure, long with a Radar Mitigation Strategy Assessment. These assessments require specialist knowledge and we are investigating who may be suitable to undertake this work.

iv) Bretherton Energy Website

Following the Public Consultation undertaken by Locality, the Bretherton Energy website at www.brethertonenergy.co.uk will be updated on 27th March 2023 and will contain the latest answers to the questions raised to Locality.

6. Conclusion

The Bretherton residents are generally in favour of the Asland Walks Energy Park, but have raised a number of further queries. It is hoped that through the next 3 issues of the Bretherton Parish Newsletter it will be possible to provide the required answers to the questions raised. These answers will also be provided in the Bi-Monthly Update.

GA will send another update in June 2023.

**GA Pet Food Partners
March 2023**