### **Woolpots Solar Farm - PC Questions and Lightrock answers**

#### **Introduction/Context**

Husthwaite Parish Council (PC) held an extraordinary meeting on 16 October to consider planning application 23/02015/FUL and the information provided by Woolpots on the new scheme (summarised on the [Woolpots Solar Farm website](about:blank)). As a result, the PC submitted its first questions to Lightrock on 17 October (the first set of questions) and requested a response by 24 October when the next meeting was scheduled - to which Lightrock and Econergy were invited.

Lightrock provided their answers to the first set of questions on the day of the meeting (24th) but said they could not attend. However they did invite the PC to collate further questions.

Following confirmation from the Planning Officer on 23 October that the PC had an extension of time to file its response until 22 November, the meeting scheduled for 24 October was postponed to 7 November.

On 29 October the PC sent Lightrock some additional questions (the ‘fire risk questions’) relating specifically to the safety risks associated with the Lithium-ion Battery Storage Unit.

On 3 November the PC sent some follow up questions to Lightrock to clarify the answers received on 24 October (the follow up questions). At the same time, the PC asked 5 additional questions relating to decommissioning of the site put forward by a parishioner. The PC requested answers before the meeting scheduled for 7 November to which Lightrock and Econergy were invited to attend.

On 7 November, Lightrock sent an email with an answer to some of the fire risk questions but did not provide any answers to the follow up questions. They asked that all ‘further correspondence be directed towards the Planning Portal.

#### **The First set of Questions and Answers and the follow up questions**

To avoid duplication, we have put together the first questions (in black text), Lightrock’s answers (in blue) and the follow up questions (in red).

**1.** Why does the PDAS [Planning Design and Access Statement] compare the proposed development with the southern site as it was presented in the original December 2021 application rather than the revised scheme that was actually determined by the Planning Committee? Please could you provide the correct comparators?

**The comparators are correct, they show the evolution from our original design to the latest one.**

While we of course appreciate there has been evolution from the original design, Plate 1 on p 12 PDAS, which provides the only visual comparator, comes at the end of a section in which you explain why the reasons given for refusal in January 2023 do not apply to the resubmitted scheme. It therefore would seem logical that Plate 1 should compare the resubmitted scheme with the scheme that was refused, not the original application. Please could you provide us with a second diagram that does provide that visual comparison?

**2.** Although we appreciate the inclusion of a number of Visual Representations, why have the Applicants still not provided a 3D rendering of the entire ‘substation compound’ to include all the infrastructure? This has repeatedly been requested. Please could you provide a visual representation of the entire substation compound and include in the relevant Y1 and Y15 viewpoints.

**The substation compound is represented, but the screening has been designed so you can’t see it, and therefore it is not visible from the viewpoints.**

Given the size and scale (as to which see also question below), there is no doubt that there will be some visibility of the infrastructure compound at least in the early years, in particular the 6.3m high new substation, from the roads close to the site and from neighbouring properties. In this regard we note that the existing substation is still not completely concealed despite extensive and managed planting over the last 70+ years.

In any event, it is usual to include a full visual representation of any significant structure in a planning application so we feel it is reasonable to ask for full 3d rendering of the entire infrastructure compound which has been requested several times before. Could you please provide this now?

**3.** Please can you confirm the total acreage of the entire substation compound including the Battery containers, inverters etc?

**1.52 acres**

In the original application the substation alone was described as being 2 acres and the battery containers were then added subsequently. Judging by the site map provided in the resubmitted application, the combined coverage looks closer to 4-5 acres. Did you mean 1.52 hectares rather than acres?

**4.** Why does the battery storage capacity have to remain at 74MW (37MW for 2 hours) when the output of the scheme has reduced from 45MW to 32MW?

**The battery storage system is designed to stabilise the electricity network and provide grid security locally. The solar array and battery storage system are not reliant on one other.**

Has Northern Powergrid expressly requested this volume of storage capacity? If yes, has it specified that it should be at this precise location?

If the solar array and battery storage system are not reliant on one other, then why is the battery storage system classed as ‘associated infrastructure’?

**5.** Why does the substation compound have to be located adjacent to the road (other than for cost reasons)? The adverse visual impact and the safety issues would be reduced were it to be placed further down the hill and away from the village with planting/bunding around it.

**Design efficiency – the substation is more efficient the closer it is to the grid connection.**

How is ‘design efficiency’ different to cost/profit considerations?

**6.** Why has it been necessary to add in solar panels to north of substation compound (when these were removed in the previous applications November amendments)?

**In order to achieve design efficiency after removing the northern section it was necessary to plan solar on the remaining land in the south. They’re designed to be in the lower lying land, and therefore less conspicuous.**

From the site map it appears you have added panels back into the section to the north of the infrastructure sub-compound. The ground is rising at this point. Why was it necessary to do this?

**7.** Why is the security fencing being placed at a considerable distance from the nearest solar panels? And what is the total length of fencing to be included?

**The site is fenced that way to provide easy access for grassland and grazing maintenance. The total length of fencing is 388,586.82m.**

388,586.82m is equivalent to 241 miles of fencing - are you sure this is correct?! If yes, why is such an enormous amount of fencing required for a 128 acre site?

**8.** Industry standard security fencing cannot include mammal gates. Please can you confirm that the Applicants are not intending to drop these from the actual fencing to be installed?

**We can confirm that we are not intending to drop mammal gates. They will be installed in the perimeter fence.**

In that case the perimeter fencing does not appear to meet the security standards which we understand are recommended for solar installations by the British Transport Police. What are the insurance implications and do you anticipate any changes from your insurers in the light of guidance that we believe is being considered by the British Institute of Insurance Brokers for its members?

9. How many 4m CCTV posts will be included on site?

**72**

The posts are shown as having LED lamps. Will these be on during darkness or will they be motion activated? What is the lumens/brightness of these lamps?

10. Why have the Applicants reverted to tracker panels after informing us, in November 2022, that fixed panels were better for a number of reasons including glint and glare, environment etc.?

**Advances in technology mean that tracker panels are now the best choice for this site.**

What advances in technology have occurred since November 2022 specifically and will these reduce the glare that occurs when the panels are tilted towards the village? We are very conscious that the tracker panels at Boscar are far more visible than the fixed panels at Peter Hill. Given the number of panels you are now proposing in a denser configuration, this is a concern.

**11.** Why does the PDAS make no reference to the NYC Climate Change strategy or any Community scheme etc?

**Section 5.3.4 of the PDAS is titled “North Yorkshire Climate Change Strategy”. Community benefit is discussed in appendix C of the PDAS, Statement of Community Involvement (SCI).**

The NYC Climate Strategy and the NY Energy Plan both make reference to the need to encourage Community schemes. Would Lightrock/Econergy be willing to discuss the setting up of part of the Woolpots scheme to supply the local community directly (assuming this can be arranged with NPG).

**12.** Please can you confirm which cooling system the applicants are intending to use for the Battery Energy Storage System and where the water for the Fire Suppression System will come from?

**The battery energy storage system will be liquid cooled. Details of the fire suppression system can be found in Appendix U, Fire Water Management Strategy (FWMS).**

We can find no reference to a ‘liquid cooling system’ for the battery containers in any of the documentation. Please could you help us locate this by providing a document/page reference?

#### **The Fire risk questions and Lightrock’s reply**

1. The Outline Safety Management Plan (the Plan) in the revised application for Woolpots Solar Farm and associated BESS makes repeated reference to consultations with North Yorkshire Fire & Rescue Service (NYFRS). Can you please say when these consultations took place and who they were with specifically at NYFRS?

2. As a result of these consultations, has NYFRS expressly approved the Plan?

3. Why does NYFRS make no reference to these consultations in its response to the application filed on 25 October?

4. In relation to a fire the Plan specifies a water availability of 1,900 litres per minute for 2 hours, which we understand is the minimum recommended by the National Fire Chiefs Council. However, actual examples of lithium battery fires suggest far larger volumes of water are required over a much longer period of time. At least two fire & rescue services - West Yorkshire and Hereford & Worcester - have called for 5.5 million litres of water over a 24 hour period. This is 24 times more water than the Plan specifies so please could you explain why you feel that the bare minimum is needed given the size of the BESS which is considerably bigger than in some solar farms and also given its proximity to the main NPG substation and to various residential and agricultural properties?

5. The Plan makes reference to a new storage facility for this water. How big will this be and where will it be located exactly?

6. If a much larger holding tank for run-off arising from firefighting activity was required at the point of actual design/construction (see above), how will this be accommodated in the scheme?

7. The Plan refers to the provision of fire hydrants, but there are no fire hydrants marked on the site plan. Where are these to be situated?

8. The Plan states these hydrants will be ‘fed from towns mains’. Please clarify which ‘town’ is referred to and what is the water source for this supply and its delivery capacity?

9. What else does this ‘town mains’ supply locally?

10. Is the ‘town mains’ to be the only water source relied on?

11. Can you please explain why the Plan makes no mention of the risk of explosion or of the risk of a release of a toxic vapour cloud given that there have been numerous Lithium BESS fires around the world in recent years which have resulted in explosions and/or vapour clouds.

For example, as we are sure you are aware, a fire at a BESS in Liverpool in September 2020 led to both a toxic vapour cloud and an explosion. The fire took 59 hours to bring under control and the explosion scattered debris over a 23 metre radius. The vapour cloud was highly toxic - it contained Hydrogen Fluoride - and very nearly required evacuation of the local community. And the Carnegie Road BESS was considerably smaller than the one planned for Woolpots. This is a particular concern for us, given that the prevailing wind would take any toxic fumes straight towards the village and the local primary school which is located just 1km to the north east.

**Extract from Lightrock email dated 7 November**

**“With reference to your questions; our agent consulted with North Yorkshire Fire and Rescue Service on 7th and 25th July this year, however NYFRS have been involved with the planning of the site throughout. Our plans are in line with both NYFRS and the manufacturer’s latest guidance and safety recommendations. Different solar and BESS projects nationally will use different technology and be subject to different environmental factors, which means that response plans may vary from one site to another. All equipment, including tanks and hydrants, is sized appropriately, and can be viewed on the site plans, or in the battery safety management plan. All units are designed with safety measures incorporated. Town Mains is the generic term for the mains water supply, and does not refer to any particular town.”**

#### **The Decommissioning Questions (no reply)**

1. Who will be responsible for restoring the farmland to its original state after the solar panels are removed at the end of 40 years?
2. Who will be responsible for restoring sub-compound area and battery park compound to its original state after the ancillary plant and batteries are removed at the end of 40 years?
3. What will be the landowners’ liability with regard to Q1 and Q2 above?
4. Will the developer be posting a bond at the outset to cover the cost of land reclamation and making good at the end of the 40 year tenure?
5. if so, what will be the value of and management arrangements for this bond