Feckenham Parish Council

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By email

22nd May 2023

Dear David and Sean

23/00192/FUL Cross Boundary Application for Solar Farm Cable - Redditch LPA W/23/00270/FUL Solar Farm Application – Wychavon LPA

During our Parish Council meeting on 18th May 2023, Feckenham Parish Council identified two further problems with the JBM application for their Solar Farm cable connecting to Feckenham Substation. Firstly, we do not agree with the assessment of harm in relation to the cable installation, made by the Worcestershire Archaeology officer. Secondly there appear to be minor inconsistences in JBM's documentation relating to the cable routing. We are therefore writing this second letter of objection, stating our further concerns.

Assessment of Harm from the Cable Installation

The Worcestershire Archaeology Officer says in her assessment: -

"The proposed cable route enters Feckenham Parish at approximately NGR 400539 259750 and again south of Mouch Farm at approximately NGR 400759 260030 before continuing in a north, north-east direction where it ends at the Electricity Distribution Site, east of Rockhill Lane. <u>The proposal is to mole the cable; this will create a narrow, temporary trench, the</u> <u>land over which will be closed following installation of the pipe</u>".

It would appear from her comment that she believes that the cable would be installed by "Mole" technology – which mitigates against the sort of damage done to historic soil formations like Ridge & Furrow when compared with conventional trench excavation with a large mechanical digger. The implication of her statement appears to be that the cable laying technique is analogous to some sort of keyhole surgical procedure, which leaves little or no scar. Nothing could be further from the truth; this cable installation is, in reality, a major

engineering and construction challenge. We say, because of its magnitude, the installation of this cable is highly likely to irreparably damage the precious historic Ridge and Furrow soil formations.

To prove this point, we draw the attention to the following facts:

- Immersa Ltd, in Paragraph 5.13 of their planning statement for a different planning application (23/00417/FUL) for a comparable BESS facility with underground cabling to the Feckenham National Grid substation, state that the cost of this sort of cable installation is £1000 per metre, which would price JBM's 4.5km cable at approximately £4.5m. This colossal cost clearly indicates the scale of the works involved in this operation.
- 2. We point out that JBM do not say that "mole" technology will be used, anywhere in their specification, and it appears that the archaeology officer has simply assumed this to be the case.
- 3. In fact, JBM have included very clear diagrams showing that a trench measuring 1.6m deep and 0.7m wide, will be dug the entire 4.5km length of the cable. We show some of these diagrams below. Note there are, in fact, two triple core high voltage cables, two earth conductors, and two comms conduits sited in the trench; and, importantly, the construction includes the removal of a layer of soil 0.6m in depth, and its replacement with sand bedding. The officer incorrectly says a "pipe" is being installed and she should know that it would be completely impossible to construct this complex layout shown below using "mole" technology.



- 4. We have looked up the specifications of this sort of high voltage cabling which is typically 70-90mm in diameter and supplied on wooden cable reels measuring 4.5m in diameter weighing 4.5 tons, we estimate that at least 40 such reels would be needed, plus the necessary heavy duty electrical connectors to join the cable lengths together. The cable reels would need to be transported to the installation site by large delivery lorries. The excavation of the trench itself would typically be done by commercial sized mechanical diggers weighing between 15 and 25 tons, and for a cable of this length being built in the timeframe that the applicant is suggesting, we think 5-10 such excavators would be required on site, all of which would again require delivery and removal by heavy transporters. Lastly the amount of sand bedding required can be easily calculated from the trench dimensions multiplied by the length of the trench – and this amounts to 1890 cubic metres of sand. Multiplying this volume by the sand's density, gives the total tonnage of sandfill required - 630 tons. This would need 160 journeys of a typical sized sand transporting lorry. Furthermore, the soil excavated to make way for the trench sand would either require removal with a further 160 lorries or redistribution onto the surrounding land - which would obliterate the ridge and furrow formations.
- 5. We point out again that the applicant states that the width of the construction area is 10m, and given the complexity of the construction, as detailed above, we anticipate that this will be fully utilised by multiple types of heavy equipment, all of which are likely to damage the soil surface. Multiplying the width of the construction area (10m) by the length of the trench (4.5km) length gives the approximate size of historic pastureland which will be affected by this cable laying operation 45,000 square metres. Much of this contains precious and irreplaceable Ridge and Furrow soil formations.

The archaeology officer appears to have completely misunderstood JBM's proposed construction techniques and the sheer scale of this operation. Specifically, we think her mistaken assumption that "mole" technology will be used, has led her to vastly underestimate the potential damage to important heritage assets. We would respectfully request that she reconsider her opinion accordingly.

We say this level of potential damage inevitably justifies refusal of the planning application.

Inconsistencies in Cable Routing Documentation

It has come to light that there are some inconsistencies and inaccuracies in the information about the cable route supplied by the applicant to Redditch and Wychavon LPA's. Although this is a small matter, when compared to the magnitude of the whole application – it remains the case that unless the relevant details are consistent, then both applications are potentially invalidated. In this regard we point out that, the cable route near the substation is recorded on the Redditch website Ecology documentation as running south of the PROW footpath, whereas in the "cable route" diagrams it runs to the north of the same footpath. This matters because there are several trees that would be sacrificed if the "Ecology diagram" route was to be followed. We ask that the applicant clarify where the cable will be sited.



Map of cable route in Ecology report: Trees would be damaged.

Suggestion for Detailed recording of Archaeology Features at site where cable crosses B4090 Saltway

Lastly, in regard Roman Road archaeology, the Parish Council have been supplied with a photograph (see below) of recent contractor excavations traversing the Saltway carriageway outside 24 Droitwich Road Feckenham, which is some 1km from the point where the cable is due to cross the same road in this planning application.



This photograph very clearly shows the classic features of cobblestone architecture foundations used in this same Roman Road. In our view, the same archaeological features are highly likely to be present under the B4090 Saltway at the point where the cable will cross the carriageway. We think the archaeology officer may wish to make special provision for recording such historic Roman Road findings during this cable laying operation if planning consent is granted. This could be done by the addition of a suitably worded condition.

Summary

Feckenham Parish Council requests that Both Redditch & Wychavon take note of this further objection and publish it on their respective planning websites. We also request that the Worcestershire Archaeology Officer reviews and revises her opinion.

Yours sincerely

Feckenham Parish Council

Cc Emma Hancox Worcestershire Archaeology ehancox@worcestershire.gov.uk