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Sent via email to:

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and

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6th June 2022

Dear Mr McInnes,

Preliminary Environmental Information Report consultation

The statement below is submitted to Barton Wilmore/Baywa r.e UK Limited jointly by Derbyshire County Council (DCC) and South Derbyshire District Council (SDDC).

DCC Member Comments

Consultation on the proposal and Preliminary Environmental Information Report (PEIR) has been undertaken with DCC's Elected Members Stuart Swann (Linton Electoral Division), and Carolyn Renwick (Cabinet Member for Infrastructure and Environment, Eckington and Killamarsh Electoral Division) asking for their comments on the scheme.

Councillor Swan has stated that "balancing the requirement to address the huge challenges of climate change, and its impacts, with the need to achieve both energy and food security for the UK is a key aspect to be considered. Clearly, constructing solar farms on good quality agricultural land would mean prioritising renewable energy generation above food production.

Residents have expressed concerns in respect of the sheer size and scale of the proposed solar farm, along with plans for similar facilities within the local area and thus making them a dominant feature of the local environment. Additional traffic, particularly in the construction stage, is also a key matter of concern for local communities.

Furthermore, among other issues, there remains some scepticism regarding the impact of the proposal on wildlife and biodiversity locally.

Importantly, I trust that the comments and submissions of all local residents, parish councils, and other groups in the area are taken fully on board and their material concerns addressed as part of the planning application process."

Any further member comments subsequently received will be forwarded to you for your information.

SDDC Member Comments

Members of SDDC Planning Committee were made aware of the consultation through your own consultations, as well as through South Derbyshire District Council's Planning Committee on 31st May 2022. Members have raised a number of objections which are summarised below:

- The proposal will lead to the loss of good quality agricultural land.
- This agricultural land is valuable and is important nationally to ensure food security.
- The scale of the proposal is too large and will have a significant impact on the area, which is considered to be an attractive rural area of South Derbyshire.
- The traffic routings proposed are unacceptable, the small roads from the A38 (through Catton and Coton in the Elms) will not be able to cope with the traffic and the large vehicles required.
- Concern over loss of biodiversity and trees, and disruption to the earth during construction.

Councillor Wheelton (Ward member for Seales) has stated "the proposed development is large and industrial in both scale and nature, it would dominate the rural setting. It will not enhance or benefit the area giving rise to unacceptable impacts on landscape character and quality, ecology, biodiversity and the historic environment of local conservation and heritage assets. This [proposal] cannot be integrated into the landscape sympathetically due to its size and industrial character. The cumulative effect of solar farms is damaging the rural environment and threatening national food security".

Officer Comments

In addition to the feedback highlighted above, the two Councils have technical comments to make. For some technical officers, not enough information is available at this stage to give detailed responses, but as much feedback as possible has been collated which we hope will be useful to you.

For your information, there appear to be a number of errors in the identification of figures throughout the PEIR, although the relevant figures are present, they are not consistently numbered as referenced. The numbering of figures should be resolved throughout the document to assist in the identification of relevant information and aid understanding of the documents.

Scope and methodology of the EIA

The PEIR covers the topics agreed by PINS and other consultees to have the potential to give rise to significant effects as a result of the proposed development, along with an additional list of issues which it is felt could not be scoped out in the absence of more detailed information. These additional topics include: major accidents and disasters, telecommunications and utilities, human health and air quality (during construction). Derbyshire County Council and South Derbyshire District council agrees with the inclusion

of these additional topics subject to the provision of further information demonstrating that issues may be scoped out. The matters of Human Health and Air Quality during construction are more appropriately considered by SDDC Environmental Health officers.

It is also agreed that while there are changes to the red line boundary for the proposed development, particularly the extension to include Drakelow Power Station and areas of woodland east of Park Farm, these changes are not a material change to the development and any resulting impacts will be within the scope of the proposed EIR.

Cumulative impacts

The cumulative impacts have been considered in light of a number of developments, at application stage, consented, under construction or operational, within 5km of the site. These include a hybrid application for mixed-use development, and a number of renewable energy related proposals in the form of solar arrays, energy from waste and energy storage facilities. The cut-off date for data collection relating to potential developments giving rise to cumulative impacts was March 2022.

Two of the developments identified relate to ground mounted solar installations, although on a smaller scale of around 50MW capacity, still occupying an extensive site. The cumulative impacts of these, particularly in relation to landscape and visual impacts and the effects of glint and glare, should be fully explored in the relevant sections of the EIR, as noted below. Of particular importance is the potential for viewpoints where multiple solar sites are visible or where glint and glare from multiple sites may be apparent from operational sites.

The cumulative impacts of traffic, in particular the potential to encourage infringement of the 7.5t Environmental Weight Limit on local roads, are discussed in the relevant section below.

Transport and Access

A key issue is the construction phase traffic and its implications for the local road network. The location is close to the proposed new Drakelow/Walton By-pass scheduled to commence in late summer/early autumn 2022. The new road is another major infrastructure provision in the area and is inevitably going to generate significant levels of HGV movement within the surrounding area, over a prolonged period. The Highway Authority already receives persistent enquiries relating to the contravention of the 7.5t Environmental weight limit in which the proposal sits, even before the additional associated site traffic is introduced. It is appreciated that HGVs accessing the solar site will have a legitimate reason for accessing through the weight limit, however, concerns regarding the perception that this will generate at a local level which will need to be carefully managed if further HGV through traffic is not to be generated 'piggy-backing' on use of the highway network for legitimate access. Traffic monitoring and marshalling identified in the Construction Traffic Management Plan should be designed to contribute to enforcement of environmental weight limits.

Appendices 10.1 to 15.2 include traffic data and a Framework Construction Traffic Management Plan (FCTMP) detailing the routing and timing of construction and freight traffic to enable safe, efficient and timely delivery of plant and materials during the construction phase. Freight traffic will be restricted as far as possible to outside peak traffic flow periods, with most HGV movements anticipated between 0930 and 1500 hours.

Primary access to the site will be via the A38 from the West or the A511/A444 if from the East. Upon leaving the 'A' road network construction traffic will be required to follow designated routes to avoid as much as possible transiting villages. It is accepted that there are circumstances where routing of large indivisible loads may pose specific difficulties and short periods of disturbance of inconvenience to local residents.

The FCTMP includes a comprehensive set of construction traffic impact mitigations measures including marshalling HGVs and monitoring predicted and actual HGV movements and timings.

A number of elements of the FCTMP will require negotiation with the Highway Authority including the use of Temporary Traffic Management Orders, Highway Condition Surveys, weight restrictions and potential impacts on highway structures.

The routing and delivery of indivisible abnormal loads will require further discussion with the highway authority to confirm the suitability of the proposed route and those measures necessary to ensure accessibility and the protection of highway (and other) infrastructure.

Clearly, DCC needs to establish that there are safe and satisfactory means of access to each of the individual compounds comprising the wider site. This should include vehicle swept path analysis for each of the access points, however, it is understood that the applicant will be providing this information in due course. The DCC Highway Development Control Team will then establish whether the highway authority has any safety concerns regarding access

Once operational there will be very little in the way of generated traffic. Obviously, the Highway Authority will need to be satisfied that there are no fundamental safety related considerations regarding the wider highway network. This will need to be addressed

through the evolving Construction Environmental Management Plan (CEMP). It is understood that the applicant has been in discussion on this matter with relevant officers at DCC. Obviously, this dialogue needs to continue to agree, or otherwise, to arrive at any statement of common ground regarding the CMP.

There may be some fundamental highway safety considerations arising from the glint and glare assessment. Unfortunately, the Highway Authority does not have the necessary expertise to advise the authority on this matter, however, it is possible that the authority may consider engaging outside expertise to confirm the conclusions of the PEIR in this respect.

Heritage

SDDC Officer

The following heritage assets may be impacted upon directly:

- [GATE PIERS, ADJOINING WALLS AND ATTACHED PIERS AT DRAKELOW LODGE ENTRANCE TO DRAKELOW POWER STATION, Drakelow - 1158871 | Historic England](#)
- [GROVE FARMHOUSE, Drakelow - 1096453 | Historic England](#)
- Possible Roman Road (conjectural route of), Ibstock (Leicestershire) to Ryknield Street (Staffordshire), South Derbyshire: [Heritage Gateway - Results](#)

There is also potential impact on the setting to the following heritage assets:

- [CHURCH OF ST MARY, Rosliston - 1159242 | Historic England](#)
- [STABLEBLOCK AND COTTAGES TO FORMER DRAKELOW HALL AT SK 241203, Drakelow - 1096454 | Historic England](#)
- [Walton on Trent Conservation area, and those Listed Buildings within the boundary](#)
- [Slight univallate hillfort 230m south west of Old Hall Cottages, Walton upon Trent - 1017742 | Historic England](#)

DCC Officer

Proposed development and site context

The proposed development essentially comprises a solar farm including photovoltaic (PV) panels, an energy storage facility and other associated infrastructure. It will occupy two separate parcels and will connect to the national electricity network by a new overhead cable to Drakelow Substation. The expected generating capacity of the project at this stage is 163 megawatts of solar power, and 37.5 megawatts of energy storage capacity.

The PV panels are illustrated as being arranged in rows which are to be mounted on metal frames/tables secured into the ground via (2m depth) piled metal stanchions. The PV panels are illustrated to measure approximately 2.7m above finished ground level. The energy storage facility would comprise of 15-20 shipping containers, containing numerous batteries and other electrical components, covering 2 acres of the site. Each container measures approximately 3m in height and 10m long.

Historic Built Environment

We are satisfied that the PEIR meets the requirements of the NPPF (para 194) in terms of describing the significance of any heritage assets potentially affected by the development. It is evident that this has been suitably assessed in Chapter 7 'Historic Environment', together with supporting Appendix 7.1 'Historic Environment Assessment'.

Chapter 7 (C7) establishes a wider study area of 5km although it argues that it is less likely that any significant visual effects are likely to be felt outside the 2.5km study area used for the LVIA. Given the nature of the surrounding landscape we generally concur with this assessment and agree that a 2.5km Core Study Area (CSA) is suitable for contextual data gathering and assessing potential impacts on built heritage features. Within this CSA various built heritage designations have been comprehensively identified, described and the potential impacts of the development assessed. In summary, while the site is not host to any listed buildings there are numerous historic environment related receptors in its surroundings. However, of those identified within the CSA I generally concur with the findings of C7 in that the most susceptible of these to change are likely to be the following, during both the construction and operational phases:

- Grove Farmhouse (HE LEN 1096453): Grade II listed building: referred to in C7 as 'Park Farm'.
- Gate Piers, Adjoining Walls and Attached Piers at Drakelow Lodge Entrance to Drakelow Power Station (HE LEN 1158871): Grade II listed building and adjacent non-designated lodge building.
- Walton on Trent Conservation Area and associated heritage assets; those most sensitive to the proposed development include:
 - o Church of St Laurence (HE LEN 1159347): Grade II* listed building, and
 - o Walton Hall and attached Stable Range and Garden Wall (HE LEN 1159300); Grade II* listed building, including its undesignated parkland setting.
- Borough Walls Iron Age hillfort – Scheduled Monument.
- Oaklands Farm – farmhouse and attached storage range plus Oaklands Farm Cottages, both non-designated.
- Church of St Mary, Rosliston (HE LEN 1159242) – Grade II* listed building.
- Church of St Mary, Coton in the Elms (HE LEN 1096452) – Grade II listed building.

Construction phase impacts

The construction phase is set to last for a period of 16 months. C7 identifies that with the presence of construction activities, including plant equipment, within the site may be visible from some of the listed buildings identified above. However, we concur with the conclusion drawn in para 7.76 that any change experienced in the setting of these will be temporary and short term and therefore no harm should arise.

Operational phase impacts

The operational period for which permission is being sought is 40 years. According to para 7.81 those heritage assets identified above have the potential for their setting to be impacted on because of the proposed development. Para 7.82 sets out that the assessment of effects related to such changes in setting is based on the Proposed Development ZTV and photomontages.

Given the nature of the proposed development it is agreed that the effects on setting are reversible following the removal of the PV panel arrays and associated above-ground infrastructure. DCC is also generally in agreement that, during the operational phase, the impact on the setting of the above designations will result in the level of harm ascribed in Table 7.4 'Summary of Effects'. Very generally speaking it is agreed that this level of harm is likely to fall towards the lower end of less than substantial harm.

However, DCC is less certain over the potential impacts on the setting of Park Farm (GII). While this authority does not disagree that it is likely to fall into the category of less than substantial harm it is not presently clear exactly where within this category it is likely to fall. Our uncertainty over this stems from the observation that the closest PV array is shown to be located on fields just a few hundred metres away on what appears to be, from Google Earth imagery, gently rising ground to the southeast of the farmhouse. It is therefore not entirely inconceivable that these may be quite visually prominent features of the immediate landscape setting of the farmhouse. With the absence of any 3D visuals within the photomontages, it is unclear as to how visible and prominent these are likely to be.

It is somewhat contradictory that the impact on the setting of some of those heritage assets identified as being 'susceptible to change' in para 7.81 will result in 'no harm done'. The designations ascribed with this level of harm include:

- Church of St Laurence (HE LEN 1159347): Grade II* listed building, and
- Walton Hall and attached Stable Range and Garden Wall (HE LEN 1159300); Grade II* listed building, including its undesignated parkland setting.
- Borough Walls Iron Age hillfort (alternative name used by DCC for 'Slight univallate hillfort 230m south west of Old Hall Cottages') – Scheduled Monument

The basis for this judgment appears to have been made, generally speaking, from the view that it is unlikely that there will be any intervisibility experienced between them and the proposed development. However, notwithstanding this, it is our opinion that direct intervisibility does not necessarily need to be encountered within their setting for it to contribute to their significance.

Their landscape setting, of which the proposed development site arguably forms a significant proportion, plays an important role in forming an understanding of their historic rural context. When journeying between these various designations it is our opinion that a landscape carpeted with a significant area of PV arrays will alter the perceptual qualities of their landscape setting. This is because PV arrays are alien to this rural landscape, as industrial non-organic features, but also because the current sense of sense of isolation as part of nucleated development patterns will be eroded to some degree.

It is, however, granted that this effect may only represent a small harmful change, owing to the fact that the layout seems to have been designed so as not to be overly visible from the road infrastructure around it. This largely appears to be achieved through screening provided by existing landscape features such as hedgerows and tree plantations. In the longer term it is anticipated that this will be further reduced as new planting matures and helps to screens it from view. But nonetheless this change will result in a harmful effect and therefore this should be reflected in the assessment made in C7. It is our opinion that the amount of harm will be towards the lower end of less than substantial harm under the definitions provided in the NPPF.

For the same reasons expressed by my colleague in landscape, it is difficult to appreciate exactly the extent of the visibility of the PV arrays and subsequent change based on the photomontages. As the landscape issues here are very much linked to the setting of the aforementioned designations, DCC are therefore supportive of our Landscape Architects' suggestions to add greater clarification to this. We would like to add to this by suggesting that it may be helpful to see a 3D rendered representation of the PV arrays on the photographs in viewpoint locations where they are likely to be visible through and/or between landscape features.

While we appreciate that this is likely to be outside the scope of this particular application, it may be worth considering, as part of future similar applications, the use of drone technology in conjunction with augmented reality to help provide a better impression and understanding of how such proposals would be located in the landscape. For example, the drone could begin at 'street view' and then move higher to illustrate its surroundings which would help to provide a better cognitive understanding of the site and its relationship to its surroundings. These locations could be plotted onto an interactive map, as agreed viewpoints, to allow viewers to click on a URL to view each video clip.

In order to keep the visual impacts of the scheme to an absolute minimum it is also urge the applicant considers the choice of colour for the supporting infrastructure very carefully. It is advised that any perimeter fencing, substation equipment, inverter cabinets, battery storage units and such like are supplied in a very dark colour, preferably a very dark grey

(i.e. RAL 7021 or similar) or black. DCC is also very supportive of the advice provided by our colleague in landscape that all power cables should be placed underground as opposed to the installation of overhead pylons to help future mitigate the visual impact of the scheme.

Landscape and Visual Impact

SDDC Officer

It is requested that the landscape assessment also includes within the assessment methodology –

- National and Regional Landscape Character Assessments;
- A visual assessment and impacts, of the construction phase of the project;
- All viewpoint visual assessments to be summer and winter;
- Assessments to be made from all residential properties, farmsteads, and local settlements, a valuation for all these receptors is required.

It may be good to increase the suggested 13 viewpoints, given the size of the application. In terms of landscape mitigation planting, we would wish to see, tree belts and buffer zones to certain field boundaries of at least 5m, as well as buffer zones to any PROW that would allow for substantial tree planting and give greater ecological enhancement. There is an opportunity to plant several pocket woodlands within the surrounding area, which would give a greater screening, and longevity, and enhance the impact for wildlife. The usual mitigation would be to state, that the existing hedgerows would be allowed to increase in height to 3m and be maintained at this height. This is a difficult height to maintain a good quality hedgerow and is not in keeping with many landscape characters. We would wish the mitigation to be substantial tree planting, given the relationship of South Derbyshire and the National Forest.

DCC Officer

The following officer comments are based on the information provided comprising: the landscape and visual amenity considerations in the form of the Landscape and Visual Impact Assessment (LVIA), the Residential Visual Amenity Assessment (RVAA) and supporting appendices including the draft landscape strategy for the development and, in the absence of a site visits, supporting information obtained using Google Maps Streetview.

The LVIA has been produced in accordance with the relevant guidance and has taken account of the relevant information that should inform the landscape and visual baseline. This has involved a review of the Landscape Character of Derbyshire publication and the accompanying Technical Support Documents relating to Areas of Multiple Environmental Sensitivity (AMES), Tranquillity and Monitoring Landscape Change.

The landscape and visual impact assessment is refreshingly honest and concludes that there would be long-term impacts on the landscape character of the site and its immediate setting as a result of this development proposal. I would concur that this is a fair judgement given the scale and nature of the development, the rolling nature of the landscape and its general openness at the present time, and whilst I might argue that the impact on the wider landscape character type might be greater than suggested, overall I don't believe these effects would be significant. The LVIA goes on to state that there would also be longer term visual impacts associated with certain visual receptors (people) around the site at certain locations where views of the development would be obtained. Some of these effects at certain locations can be mitigated through reinforcing existing hedgerows, allowing some hedgerows to grow taller and through strategically placed new woodland planting but on the whole the site is surprisingly well screened from the main settlement locations by both intervening landform and vegetation. The overall approach to landscape and visual mitigation is supported and has attempted to maintain some aspects of the current character of the wider landscape. At this stage the only additional mitigation

that I would like to see considered and committed to, is the colour finish of certain components of the development. Whilst there is reference to security fencing being finished in a dark green colour there is no similar commitment to finishing the new substation, battery storage facility or transformers in equally dark and recessive colours, which I would suggest is required if these features are to be accommodated within this relatively rural setting.

So, in the round, we have a LVIA that suggests that even allowing for landscape mitigation we have a development proposal that would continue to have some long-term landscape and visual effect and in some regards is probably at odds with the local planning policy context when considering landscape and visual impacts and development in rural areas. In that respect, I wonder to what extent the proposed development could and should provide greater landscape benefit to add to the planning balance, for example through its ability to contribute to the wider aims and objectives of the National Forest. This is an evolving landscape as a consequence of the National Forest designation and a more robust wooded landscape framework would certainly go a long way to containing a development of this type and scale. It may be difficult to deliver these benefits within the current red line boundary, but I would ask that the applicant considers additional off-site planting to further reinforce the overall approach to landscape and visual mitigation and enhancements to wider landscape character. For example, the photomontage at VP5 shows a framed view of the development from the Cross Britain Way, a promoted recreational route adjacent to the site, that could be more adequately mitigated if the foreground boundary in the view was reinforced by additional planting. I would certainly suggest that all boundaries within the site boundary should be replanted/gapped up and not just those that have been highlighted as being the most important for visual mitigation to reinforce and strengthen existing landscape characteristics and perhaps some of the field corners currently identified for species rich grassland could be planted as small woodland copses as an alternative strategy particularly given that existing fields containing the panels will be managed as unimproved grasslands throughout the period of the development.

In terms of the overall presentation of material, it is difficult to precisely locate the viewpoints due to the scale of the plans provided in the PEIR. Similarly, although a direction of view bearing is indicated on the image, an arrow indicating the direction of view on the plans may assist in their interpretation. Furthermore, although the horizontal extent of the solar panels was annotated by a line across the photograph, I found it difficult to precisely judge where the PV panels would be within the view and consequently the extent to which they might be visible. Where a photomontage isn't produced for a particular viewpoint to show where the panels would be, then it is suggested that the agricultural fields affected by the development should be identified in some way so that the viewer can better appreciate the full extent of any impact. Also, It is not clear if only PV panels are displayed on the photomontages excluding other elements such as the substation, battery storage facility and possible overhead pylons. With regard to the latter point, I would urge that the applicant seeks to secure underground cable connections to negate the need for any additional overhead structures that would introduce more visual clutter to the current scene.

Environmental Health and Noise

SDDC Officer

No significant concerns in principle are raised at this stage, but officers would look to comment at full application stage, once the design of the scheme and proposed plant has been selected.

DCC Officer

The noise and vibration assessment and methodology presented is welcomed and it is accepted that in the main, the construction methods employed are unlikely to generate significant noise or vibration at the most sensitive receptors.

Operational noise generated by the proposal is effectively limited to that of sub-stations and transformers. DCC supports the review of the location and acoustic screening of the energy storage facility and transformer sub-stations to further reduce the possible impacts of noise while accepting that there is only very limited likelihood for adverse impact on specific receptors. The evidence provided in the form of acoustic contours relating to the predicted operational worst-case day-time noise levels (plate 11.1) and predicted worst case night-time noise levels (plate 1.2) suggests that the noise impacts at the nearest receptor are expected not to be above the threshold of hearing.

The users of Public Rights of Way crossing the site, including the Cross Britain Way and proposed permissive route, will experience noise levels greater than at the closest residential receptors, although transitory in nature, due to progression along the route. The use of such routes is also unlikely to be frequent during the hours of night-time. It is therefore agreed that the operational impacts of noise are therefore unlikely to be significant.

Climate change and carbon reduction

SDDC Officer

This proposal would make a huge contribution to carbon emission reduction and would support South Derbyshire's route to carbon neutrality by 2050. It would be a large-scale renewable energy source for South Derbyshire with considerable financial investment. It would be connected to a 40MW battery storage capacity which is classed as large scale and will make the solar farm much more efficient.

It is estimated that for every 5MW installed, a solar farm will power 1,515 homes for a year and save 2,150 tonnes of CO₂. So based on these estimates this 165MW renewable energy source has the potential to power approximately 50,000 homes, which could reduce carbon emissions across the district by around 70,000 tonnes of CO₂ when compared to using fossil fuels.

Mitigation for utilising agricultural land appears to be proposed, along with continuation of grazing and retention of trees and hedges. Surface water run-off would also have to be properly mitigated. A query is raised in terms of soil compaction and how this will be avoided? Normally sites as large as this will have some parts that will be graded, as well as storing heavy machinery, so the soil compaction may also lead to surface water run-off which would need to be addressed.

DCC Officer

There is an error in paragraph 13.19 of the PEIR in that the climate change strategy is a Derbyshire County Council document, not South Derbyshire District Council as referred to.

A Carbon Management Plan, which aligns with the requirements set out in PAS 2080, should ideally be developed for a scheme of this nature and size as part of the Construction Environmental Management Plan (CEMP). DCC's expectations relating to the purpose and content of a Carbon Management Plan would be:

- To clearly set out ownership of targets and actions
- As well as emissions from construction and operation, the Plan should consider indirect emissions, such as from business overheads which can be attributable to the Scheme and business miles associated with the Scheme's construction and operation (including employee commuting miles)
- The Plan should set out how the approach to delivery will support the relevant net zero targets
- The Plan should establish a baseline carbon footprint against which future targets will be based
- The Plan should detail the framework and methodology for calculating the baseline and future assessments, providing references and justifications for the methodologies adopted
- The Plan should identify carbon reduction targets for the first contract year, detailing how these targets are to be met (as a minimum for all listed activities)

Under the proposed mitigation measures for the GHG assessment (13.52), ensuring the development is designed for resilience and durability should be considered as a measure,

as well as any opportunity for off-site assembly and the efficient transportation of materials to site.

Under the Climate Change Adaptation (Resilience) assessment, DCC would expect to see an assessment of any potential the proposed development might have to exacerbate climate change impacts, such as drought, flood risk or overheating due to a reduction in shading and cooling from vegetation loss.

Biodiversity, ecology and trees

DDC Officer

Regarding the River Mease SAC and SSSI, only a very small area covered by the proposed site and comprising PV tables and associated fencing. Given the nature of the proposal, no significant impact on the catchment, SAC or SSSI. The remainder of the site lies outside the R Mease SAC/SSSI catchment is anticipated.

Baseline ecological surveys have been undertaken and the potential for, or existence of, species of interest, including protected species has been taken into account. Buffers are proposed around sites of ecological interest including potential and identified bat roosts and badger setts. The protection of species rich hedgerows and important trees is welcomed.

Further comments can be found in the landscape comments above relating to the provision of species rich grassland meadows in some locations, consideration here should be given to strengthening or increasing tree cover with the aim of enhancing the local landscape character in the context of the National Forest designation and in light of the extent of grassland that will be retained between and beneath the proposed solar arrays.

The existing site land use is agricultural, and it is accepted that while the proposed use will take the land out of agricultural production, it will give the land time to rest, effectively in a fallow condition. However, there is concern that construction and eventually decommissioning plant traffic associated particularly with cabling and drainage will contribute to compaction of the soils and damage to soil structure.

As stated in the comments of the local Councillor above, residents have voiced concern that site fencing will restrict the movement of wildlife across and through the site. It is accepted that for security reasons fencing is required and that such fencing will need to prevent access by deer to prevent damage to the PV panels. With this in mind, consideration should be given to the design of the fencing, particularly the ground level panels, to enable the passage of smaller mammals such as badgers, foxes and hedgehogs while maintaining site security.

SDDC Officer

The Applicant has submitted a range of ecological surveys and assessments as part of their Preliminary Environmental Information Report (PIER) to inform the consultation process for the above proposed Nationally Significant Infrastructure Project (NSIP). Following consultation and finalisation of the project design, an Environmental Statement (ES) is proposed to be formally submitted with the Development Consent Order (DCO) application, which will inform the final assessment of impacts.

The proposed development site (the Site) comprises Park Farm to the north and Oaklands Farm to the south, which are referred to in the Ecology Chapter of the PIER, Chapter 6. I have reviewed Chapter 6 including the identified appendices and figures. My comments and recommendations are set out below, appropriate to the current consultation stage of the EIA process.

All recommendations have been bullet pointed and are **bold**.

OVERVIEW OF SUBMITTED BASELINE

The PIER is supported by an extensive ecology baseline provided in separate reports within the relevant appendices. Overall, the supporting survey work appears to have been generally undertaken in accordance with best practice guidance and in most cases provides a suitably robust baseline to inform the PIER and depending on submission timescales, the ES.

- **The ES submission should ensure all ecological survey work has been undertaken within the appropriate timeframes and lifespans as dictated in best practice guidelines**

DESIGNATED SITES

The PIER identifies no designated sites within the Site boundary. A Local Wildlife Site (LWS) and area of Ancient Woodland (Grove Wood – cable route only) are identified as being present within proximity to the Site, however, the PIER sets out appropriate mitigation measures to control construction and operational impacts which can be further developed for the ES submission.

The River Mease SAC and SSSI is located 4.4km to the south of the Site. A shadow screening and appropriate assessment report has been appended to the PIER, to determine the potential for likely significant impacts to the River Mease SAC arising from the NSIP proposal.

In summary, the shadow screening assessment was *‘unable to rule out the potential for likely significant effects associated with water quality and quantity, spread of invasive non-native species, and disturbance to otter during construction, alone or in-combination on the River Mease SAC’*, however, the shadow appropriate assessment concluded that *‘the avoidance and mitigation measures which will be secured in relation to the construction of the NSIP will provide certainty that harmful effects associated with contaminated runoff, changes in surface water flow, and disturbance to otter, will be avoided entirely, thereby eliminating any potential for adverse effects on the integrity of the River Mease SAC either alone or in-combination with other plans and projects’*.

CONSIDERATION OF CABLE ROUTE

A High Voltage cable route is proposed to connect the Oaklands and Park Farm sections of the solar installation, with a further cable route to the National Grid at Drakelow Power Station, just to the north of Park Farm. The PIER identifies that the cable routes have not be subject to detailed ecology survey, given that the proposed route is not fixed. However, where the cable will be underground the impacts would be short-term and temporary; the PIER additionally outlines appropriate broad mitigation measures to control impacts to sensitive habitats and species.

- **The ES should specify in appropriate detail the likely ecological impacts arising from the fixed cable routes and the mitigation measures required to adhere to relevant statutory legislation and best practice guidelines, in respect of habitats and species**

HABITATS

Given the nature of the NSIP proposed for the site (a solar farm) ecological impacts arising from construction and operational phases are likely to be comparatively lower than other

forms of NSIP or major development due to the shorter construction periods, reduced ground disturbance/damage and the static nature of the installation.

The NSIP is proposed to predominantly impact improved grassland and arable fields of low ecological value. The PIER identifies a probable requirement to remove a small number of trees and localised sections of hedgerow for access tracks and site infrastructure. Several ancient and veteran trees have been identified within the Site but are proposed to be retained and buffered, likewise hedgerows and other boundary features such as woodlands. There are several ponds within the Site, however, the PIER does not clearly state whether these features will be retained and enhanced.

A biodiversity metric (i.e. Metric 3.0/.1) has not been submitted with the PIER, however, the proposed Landscape Strategy (appended to the PIER) proposes a range of habitat compensation and improvement measures including restoring and creating hedgerows, woodland understory planting with trees and species-rich grassland, as well as increasing scrub planting and woodland connectivity through the Site. The proposed Landscape Strategy would also enhance habitats for a variety of faunal species within the Site, including most of the species identified within the PIER baseline.

The PIER includes outline mitigation measures to protect habitats during the construction phase, which are proposed to be included within a Construction Environmental Management Plan (CEMP) for the ES submission. Appended within the PIER is an outline Landscape and Ecological Management Plan (LEMP), which provides in part outline measures for the long-term management of restored and created habitats.

- **The ES should clearly identify whether ponds are to be affected by the NSIP and further specify any enhancement and mitigation measures, likewise for any drains and watercourses**
- **The PIER states that retained veteran/ancient trees will be protected with a 15m buffer. This is an incorrect interpretation of Natural England's standing guidance, which requires '*the buffer zone to be at least 15 times larger than the diameter of the tree*'. The ES should ensure that ancient and veteran trees are buffered in accordance with the correct statutory guidance (as correctly noted in the submitted Arboricultural Report, appended to the PIER)**
- **The ES should include a biodiversity metric utilising the latest approved Natural England calculator tool (currently Metric 3.1) to suitably measure the biodiversity impact of the NSIP in accordance with current best practice. It is vital that the submitted Metric is directly supported by appropriately annotated plans to ensure that retained, removed, created and enhanced habitats are clearly defined in a transparent manner**
- **The outline mitigation measures should be further refined within the proposed CEMP to ensure all habitats are suitably protected during the construction phase in accordance with current best practice. It is recommended that a habitat constraints plan or similar is produced for the CEMP, which clearly defines buffer zones to sensitive features such as ancient/veteran trees, other retained trees, ponds, watercourses, hedgerows and woodlands etc**

- **The outline LEMP should be further refined for the ES submission to ensure all habitats are suitably managed to maximise ecological potential over the operational period of the NSIP, in accordance with current best practice**

BREEDING BIRDS

The PIER outlines standard protection measures for nesting birds during the construction phase, which can be further refined for the CEMP.

Whilst the proposed Landscape Strategy associated with the NSIP has the potential to improve Site habitats for many breeding and foraging bird species, there is an increasing evidence-base to suggest that solar installations may negatively impact for ground nesting birds, particularly in respect of nesting fidelity (Montag, Parker and Clarkson, 2016; Solarview, 2019 & 2020). This is primarily due to solar arrays creating a 'closed-habitat' landscape, whereas ground nesting birds prefer 'open-habitat' landscapes to maintain predator sightlines.

The supporting baseline for the PIER (Arcus 2020 Breeding Bird Survey Report, appended) has identified the presence of x28 breeding territories for skylark within the Oakland Farm part of the Site, together with x1 breeding territory for lapwing – both are ground nesting birds. No evidence of skylark breeding territories was found within the Park Farm part of the Site (Luc 2022 Breeding Bird Survey Report, appended), considered most likely due to the dominance of intensively grazed grassland, however, a single breeding territory for lapwing was thought to partly encapsulate the Site.

Skylark and lapwing are both 'Priority Species' under the NERC Act 2006. Public Bodies have a legal duty to consider these species when exercising their functions with a view to conserving biodiversity. This legal duty has recently been strengthened to an additional requirement to 'enhance', mandated under the Environment Act 2021. Skylark and lapwing are also Red Listed species and therefore of most conservation concern.

The PIER identifies potential impacts to 'birds' as being 'not significant' during the construction phase and 'significantly beneficial' (at a local level) during the operational phase. The PIER outlines no separate impact assessment in respect of ground nesting birds. It is questionable whether the areas of open habitat wildflower grassland proposed within the PIER Landscape Strategy would be of a sufficient area to compensate for potential impacts to ground nesting birds arising from the solar installation.

Additionally, the supporting baseline (LUC 2022 Breeding Bird Survey Report, appended) appears to identify the presence of a nesting barn owl within tree T24 of the Oaklands Farm part of the Site, although the report makes several inconsistent statements in this respect (Sections 3.10, 4.6, 4.7). The PIER makes no reference to barn owl or the potential nesting site, specifically whether the tree would be retained and whether appropriate mitigation measures in respect of disturbance have been considered, given that this species is listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended).

- The ES should provide separate consideration on likely significant impacts to ground nesting birds, particularly ‘Priority Species’, arising from the solar installation and the compensation measures which are to be delivered ¹
- The ES should clarify whether barn owl has been identified as nesting within a Site tree; and if nesting has been identified, mitigation and compensation measures should be prescribed to adhere to statutory legislation and best practice guidelines during construction and operational phases

GREAT CRESTED NEWTS (GCN)

In respect of the NSIP proposal, the PIER determines ‘*a likely absence of (GCN) and therefore adverse impacts are considered extremely unlikely*’. The survey limitations section of the PIER (6.47) identifies that ‘*it was not possible to survey all ponds within 250m of the Site, and outside of the site boundary, due to access restrictions*’ but this ‘*was not considered a constraint to the survey as extensive eDNA survey effort was undertaken for numerous ponds within 250m of the Site, which were recorded as negative for GCN*’.

The detailed GCN baseline for the Oaklands Farm part of the Site is provided within an appended report - Arcus 2020 PEA Report. Of the x9 accessible ponds within the Site (on-site ponds), x6 were dry and x1 was of limited suitability for GCN. The x2 remaining on-site ponds were subject to eDNA water sampling which tested negative for GCN. Critically, the Arcus 2020 PEA identifies a further x15 off-site ponds within 250m of the Site boundary which could not be surveyed as no access was granted from landholders, therefore, presence or absence of GCN could not be determined within all off-site ponds.

The absence of GCN survey data for the x15 off-site ponds is a significant constraint to the survey baseline and assessment of likely significant effects to GCN for the Oaklands Farm part of the Site. Natural England standing guidance requires impacts to GCN to be considered from a minimum 250m buffer of the development boundary. Whilst offsite ponds clearly cannot be surveyed if access has not been granted, the Arcus 2020 PEA simply states that ‘*it is considered unlikely that GCN are present on site and are unlikely to be a constraint to the Development design*’. No consideration of the absence of GCN survey data for the x15 offsite ponds have been considered in this assessment.

In respect of the Park Farm part of the Site, the LUC 2022 GCN Survey Report presents a more comprehensive baseline in respect of GCN, mainly due to most ponds within 250m being located within the Site boundary or within accessible land. Most ponds within 250m were found to be either dry or resulted in a negative eDNA result, which appropriately concluded presence of GCN to be unlikely.

- In respect of the Oaklands Farm part of the Site, the ES should consider in more detail the implications of an absence of GCN survey data for off-site ponds and furthermore, the likely significant impacts arising from the construction phase of the solar installation following the precautionary principle. Additional compensation and mitigation measures may be required to suitably control the potential for killing and injuring GCN during the construction phase.

¹ A compensatory approach which has gained significant traction in respect of solar developments within England over the last two years has been to secure ‘skylark plots’ within off land utilised for production of cereal crops <https://www.gov.uk/countryside-stewardship-grants/skylark-plots-ab4>.

BADGERS

The submitted Badger Survey Report is correctly identified as a confidential document, but it has not been possible to view the detail of the baseline evidence to date. The PIER summarises the presence of setts within the Site, stating that all setts would be retained and buffered from the solar panels by 30m, in accordance with accepted best practice. In addition, gaps are proposed within the perimeter fencing to allow ingress and egress of badgers and small mammals. The PIER identifies appropriate mitigation measures for badgers and their setts during the construction phase, which can be further refined for the CEMP.

- **The ES should clarify the location and specification of badger access gaps within the perimeter fencing, which should ideally be plotted on an approved site plan**

BATS

The PIER outlines an extensive baseline for bats to determine patterns of foraging and commuting across the Site (detailed within an appended Bat Survey Report). Given the proposed NSIP seeks to retain and improve most boundary features within the Site, as well as create areas of species-rich grasslands, impacts to foraging and commuting bats are not considered to be significant.

The PIER identifies several 'medium' and 'high' potential bat roosting trees across the Site, although detailed surveys found no evidence of bat habitation. Several 'low' potential bat roosting trees were also identified, some of which are proposed for removal. The PIER describes appropriate outline mitigation measures to protect potential roosting bats during tree removal, which can be further refined for the CEMP.

REPTILES

The PIER outlines the results of reptile sampling surveys along boundary habitats within the Site, where no evidence of reptiles was identified (detailed within an appended Reptile Survey Report). Given the dominance of intensively managed agricultural habitats across the Site, the proposed mitigation measures outlined within the PIER, which can be further refined for the CEMP, would provide appropriate protection measures to control residual impacts to opportunistic and transient reptile species, where present during the construction phase.

WATER VOLE AND OTTER

The PIER identifies limited potential for water vole and otter within the Site due to the lack of suitable watercourses (detailed within an appended Water Vole and Otter Survey Report). The proposed CEMP can provide suitable mitigation measures to control residual impacts to opportunistic and transient water voles and otter, where present during the construction phase.

At the east side of the site (abutting n/w corner of Rosliston Forestry Centre), the boundary of the proposed development is part of 'Conker Alley' and Lime Avenue (TPOs). This is part of a mile long stretch of avenue trees which was a community & landowner project in 2010 and features on South Derbyshire's website. Lime Avenue was created in between and eventually to replace Conker Alley – a half mile run of mature horse chestnut trees. We would like to see the remaining horse chestnut trees and the new lime trees named as protected trees. The horse chestnuts are very important to the local community. As they decline they need to be managed down to standing deadwood following established good practice in forestry (rather than allowing to die back and cause a highway hazard which would then potentially be used as an excuse for complete removal).

Further details on biodiversity enhancement would be welcomed, as well as evidence that local conditions and species records have been researched. Reference to best practice might be useful.

Clarification on the term 'where appropriate', when stated that 'wildlife meadows will be planted throughout the solar farm where appropriate'. What will be in place to ensure this takes place?

Water Resources, Flood Risk and Ground Conditions

DCC Officer

Regarding the PEIR and Non-technical Summary, in particular the Flood Risk Assessment and Outline Drainage Strategy (FRA) included in appendix 8.1 of the PEIR, the Lead Local Flood Authority have the following concerns and comments:

- In order to maximise infiltration, a soil management plan should be developed which demonstrates how damage to soil horizons and ground cover will be mitigated and remediated during and after construction and for future decommissioning.
- Paragraph 7.5 of the FRA indicates that chisel ploughing will be undertaken on completion of construction works to improve infiltration and counter compaction. How could this be carried out with the solar arrays in place?
- In order to ensure flood risk is not increased during construction, a construction phase surface water management plan should be incorporated.
- Paragraph 6.2 of the FRA indicates that there will be gaps within each array to allow for thermal expansion of the individual panels and that rainwater will be able to fall through these gaps thereby avoiding a concentrated flow onto the ground. Nevertheless, it is likely that the majority of the flow would fall from the bottom of the arrays, particularly when individual panels are in an expanded condition. Measures should be incorporated to mitigate against potential erosion of the ground underneath the lower edges of the arrays. Any surface water drainage system should be sustainable and with multiple benefits.
- Ordinary watercourses within the site should be modelled to ensure infrastructure is kept outside areas of risk.
- As requested by the Environment Agency, there should be a minimum 8m easement between the top of any watercourse bank and any infrastructure.
- Any watercourse crossings, or changes to existing crossings, may need Land Drainage Consent from the LLFA and should be designed so as to not impede drainage.
- The drawings of the battery storage and transformer details in appendices F & G of the FRA do not appear to show the gravel bases referred to in paragraphs 5.6 & 5.7.

Public Rights of Way

DCC Officer

The site is crossed by a limited Public Rights of Way network which has been accommodated within the site layout. While the user experience of the landscape will undoubtedly be impacted by the proposal, including by the noise associated with the solar park plant and battery storage facility, those sections of the PRow are not extensive and scope exists for the screening of the more significant views, without creating a sense of enclosure. Further, additional permissive routes are proposed with and through the solar park creating greater potential for circular routes in the locality.

Planning Officer

SDDC Officer

Most of the site contains Grade 3 (good to moderate) agricultural land, with some areas also containing Grade 2 (very good), according to the PEIR and Natural England Agricultural Land Classification Map (2010). Policy BNE4 'Landscape Character and Local Distinctiveness' states that the Council will seek to protect soils that are 'Best and Most Versatile' (Grades 1,2, and 3a in the Agricultural Land Classification) and wherever possible direct development to areas with lower quality soils. The applicant is advised to consider utilising land which would not lead to the loss of Grade 2 and 3 agricultural land (albeit on a semi-permanent basis).

South Derbyshire District Council request that consideration is given to the adopted Local Plan Part 1 and Part 2. The following policies are most relevant to the application and will form the basis for the Council's response at later stages of the process:

Local Plan Part 1 and 2 (adopted 13th June 2016 and 2nd November 2017)

- S1 Sustainable Growth Strategy
- S2 Presumption in Favour of Sustainable Development
- SD1 Amenity and Environmental Quality
- SD2 Flood Risk
- SD3 Sustainable Water Supply, Drainage and Sewerage Infrastructure
- SD6 Sustainable Energy and Power Generation
- BNE1 Design Excellence
- BNE2 Heritage Assets and BNE10 Heritage
- BNE3 Biodiversity
- BNE4 Landscape Character and Local Distinctiveness
- INF2 Sustainable Transport
- INF8 The National Forest
- BNE7 Trees, Woodland and Hedgerows

Glint and Glare

DCC Officer

While glint and glare issues potentially affecting local residents, air traffic, highway and rights of way users have been considered and expert evidence provided to confirm that glint and glare are not identified as significant, with the exception of a limited number of residential receptors, for whom mitigation is identified, it should be noted that this authority does not have the in-house expertise to assess the data included in the PEIR appendices.

SDDC

As above, this authority does not have the in-house expertise to assess the data included in the PEIR appendices.

Major Accidents and Disasters and Telecommunications and Utilities

DCC Officer

DCC agrees that adherence to applicable industrial and regulatory standards in the specification, design and use of plant and equipment proposed to be installed at, and used in the construction of, the proposal will greatly reduce the potential for adverse impact on telecommunications systems, utilities or lead to an increased risk of major accidents and disasters. It is therefore accepted that, in the absence of contradictory information, that these issues are scoped out of the ES.

Minerals Consultation Areas

DCC Officer

Part of this site to the northeast of Walton on Trent is indicated to be underlain by resources of sand and gravel and is therefore covered by the Mineral Consultation Area (MCA), as defined in the Derby and Derbyshire Minerals Local Plan. The MCA ensures that minerals of economic importance are safeguarded and are, therefore, taken into account in the assessment of applications for non-mineral development to avoid their needless sterilisation.

The NPPF sets out that Local Plans should define Mineral Safeguarding Areas and include policies to ensure that known locations of specific mineral resources are not needlessly sterilised by non-mineral development. The emerging Minerals Plan for Derbyshire will include policies to this effect.

Policy MP17 of the Derby and Derbyshire Minerals Local Plan should be taken into account in the assessment of this application. This states that the mineral planning authority will resist proposals for development which would sterilise economically workable mineral deposits, except where there is considered to be an overriding need for the development, and it is shown that prior extraction of the mineral cannot reasonably be undertaken or is unlikely to be practicable or environmentally acceptable.

It is considered in this case that the nature of a solar park development means it could be removed relatively easily (unlike built development with foundations etc), and it is unlikely therefore that it would lead to the permanent sterilisation of the sand and gravel resource i.e. the sand and gravel would still be readily available should the development be removed. Also, the area has never been promoted by mineral operators, and is not identified as being required for sand and gravel extraction in the period for the emerging Minerals Local Plan, which will cover the period to 2038.

As a result, on balance, DCC would not have any objections to this proposal in terms of its impact on the sand and gravel resource.

Community Benefits

DCC Officer

The NPPF indicates that where new developments raise concerns regarding their likely harm to the environment, particularly important heritage assets, this likely harm should be balanced against any public benefits that may be generated by the development proposals.

In this respect, it is noted that in Paragraph 12.134 of the PEIR, reference is made to the applicant's proposals to administer an annual community benefit fund, which is welcomed and supported by the County Council. Further details should be provided in the applicant's DCO ES submission, particularly regarding the scale of funding and how such a fund is likely to be administered in consultation with local community groups. Early dialogue with such groups could establish a list of potential projects that could be funded, should the scheme be granted consent.

It is noted that paragraph 12.136 of the PEIR also indicates that the proposed development could provide a valuable educational resource for the local area in consultation with the local community, to establish how best to provide such educational materials on site. Examples of good practice are referred to including the use of interpretation boards, explaining solar energy and the work going on onsite, which could be placed at strategic locations such as along PRow; and that visits could also be arranged for local schools / community groups. These proposals are also welcomed and supported by the County Council and again, it is expected that further details should be provided by the applicant in its DCO ES submission.

Miscellaneous comments

There is a general feeling that while solar energy is supported to tackle climate change, large warehouses (especially new ones) should be utilised as a priority, instead of agricultural land.

Rosliston Forestry Centre, which is adjacent to the proposal to the east, have asked whether there would be scope to incorporate solar power energy in their education sessions and possibly work with the company to enable that to happen. If biodiversity measures were found to be exemplar, they would be keen to share expertise in this area also.

SDDC Parish Council comments

Coton in the Elms Parish Council
Drakelow Parish Council
Lullington Parish Council
Netherseal Parish Council
Overseal Parish Council
Rosliston Parish Council
Walton on Trent Parish Council

The above Parish Councils have made SDDC aware of their response to this consultation, and their responses have been summarised below.

- Concern regarding the loss of BMV agricultural land and impact on sustainable food production with the Ukraine war an example of food insecurity.
- Alternative power provision site nearby at Drakelow – could this be used instead?
- Suggestion of utilising roof spaces of commercial development instead which would not lead to the loss of agricultural land.
- Scale of development is too imposing and would have a negative impact on the landscape – it will be larger than the villages of Rosliston, Walton on Trent, Coton in the Elms and Drakelow combined. This would result in urbanisation/industrialisation of a rural area.
- Concern over constant low amplitude noise, and noise during construction.
- Concern over traffic impact at construction phase, especially on narrow lanes with weight restrictions, this could also lead to verge and ditch damage.
- Potential loss of agricultural employment
- Site is too close to another solar farm proposal between Coton and Lullington
- Concerns regarding the impact on wildlife, and the natural migration of wetland birds.
- Potential impact on a medieval archaeological site
- Potential loss of ponds and ditches during the construction
- Solar occupies significant land space, there are environmental questions around the manufacture and later the decommissioning of the panels, as well as questions regarding the efficiency of solar units in the northern hemisphere.
- 4m high hedges will completely alter the landscape and make public rights of way appear like tunnels.
- Restricted transport routes – particularly through Catton and Coton in the Elms
- The emphasis is on national energy security and there is no creative consideration of local benefit. Locally the impact is likely to be overwhelmingly negative. Can consideration be given to giving the community access to green sourced energy?
- Current national policy is relatively silent on the solar power, it would suggest that this proposal is inconsistent with national policy.

Yours sincerely,

Chris Henning

Executive Director of Place
On behalf of Derbyshire County Council

and

Steffan Saunders

Head of Planning and Strategic Housing
On behalf of South Derbyshire District Council