

Great North Road Solar and Biodiversity Park - Project EN010162

JPAG - Interested Party Reference FA50DD836

Response to First Set of Questions from Examining Authority

JPAG sets out below comments in response to four questions posed by the Examining Authority, namely:

- Q1.1.9 Planning Benefits
- Q11.1.12 Cumulative landscape and visual assessment
- Q11.1.13 Cumulative landscape and visual effects: Kelham Solar Farm
- Q13.1.6 Sustainable drainage system design

Q1.1.9 Planning benefits

The Planning Statement [APP-317] para 306 sets out that, other than policy compliance benefits, including meeting the urgent need for such infrastructure, the development would deliver other benefits that include:

- *Renewable energy*
- *Biodiversity net gain*
- *Economic, educational and sustainability benefits*
- *Enhanced landscape and public access legacy*
- *Community Benefit Fund (NG+)*

However, with regards to NG+, the applicant has confirmed [REP1-068] that NG+ measures are not part of the DCO proposals and are offered as an entirely separate community benefit.

All parties are invited to comment on whether they agree that the proposed development would deliver such benefits.

JPAG is of the view that the planning statement paragraph 306 (APP-317) (which is paragraph 7.2.4 in revision 2 of the planning statement in REP1-018) sets out an incorrect assessment of the benefits. It is also noted that the wording has been substantially amended by the applicant between the original document on which the Examining Authority question is based and revision 2 of the document.

It is also noted that revision 2 of the planning statement (REP1-018) does not include any schedule of changes to allow any interested parties or the Examining Authority to understand what amendments have been made. The main part of the planning statement has grown from 62 pages

in length excluding the glossary, to some 78 pages in length. As such the scale of amendments to the document must be substantial.

Renewable Energy

In terms of the benefits of the renewable energy position, JPAG notes and supports the technical position taken by the Norwell Solar Farm Steering Group in the Draft Statement of Common Ground (REP1-161). JPAG has worked in partnership with other local groups to not duplicate effort and work on the same matters, but instead split work and effort and where appropriate then support the position taken by the partner groups. The Norwell Solar Farm Steering Group has put significant technical work into the issues of energy generation and analysis of greenhouse gas emissions.

JPAG supports the contention put forward by the Norwell Solar Farm Steering Group that the project based on 2.7 MWh/y AC, this being the figure previously published by Ofgem, would actually only power 272,720 homes and not the 400,000 suggested by the applicant.

As we set out in paragraphs 40 to 50 of our relevant representation (RR-101), the figures put forward by the applicant suggest that Great North Road will have the potential to power double the number of homes as One Earth which is the closest NSIP scheme; yet the generation is 800MW versus 740MW. As we identified in our relevant representation, the mean figure of the 11 NSIP schemes is 338 homes per MW, the median figure is 300 homes per MW. At the median figure of 300 homes per MW, GNR would only power 266,667 homes, only two-thirds of the stated number.

The applicant uses the average household electricity consumption figure of 2,700 kWh per annum. However, the Department for Energy Security & Net Zero¹ indicates that for standard electricity 3,400 kWh per annum is the latest mean consumption level and for homes with Economy 7 electricity 4,800 kWh per annum is the latest mean consumption level. If these latest mean consumption figures are used, then the number of homes capable of being powered reduces to 216,572 and 153,405 respectively.

Newark and Sherwood is a district where 25.4% of properties do not have mains gas, in fact most of the host communities around the Order Limits have no mains gas availability at all. As such those properties use more electricity as the DESNZ figures acknowledge. Therefore, the claim that the scheme could theoretically power all homes in Nottinghamshire is fundamentally incorrect.

¹ <https://assets.publishing.service.gov.uk/media/67e3eae39c9de963bc39b482/consumption-level-review-march-2025-methodology.pdf>

The assumptions on the number of homes that could be powered therefore does not appear to be based on cogent or substantive evidence. The headline benefits cited by the project therefore appear to be misleading.

Carbon Emissions

The planning statement, revision 2 in paragraph 7.2.4 still claims that the development is projected to result in a net reduction in emissions of 789,292 teCO₂e², helping contribute to the UK's Net Zero targets. However, this figure is strongly disputed by the Norwell Solar Farm Steering Group.

JPAG notes and supports the position of the Norwell Solar Farm Steering Group in their written representations (REP1-101 as updated by REP1-102) that in fact the development will not result in any net reduction in emissions.

JPAG notes that the Norwell Solar Farm Steering Group concludes in paragraph 14.3 of Rep1-101 that: *“The project will produce energy from a renewable source and will contribute to national solar generation capacity. However, given the huge CO₂ emissions and embodied carbon associated with the project, it could not be classed as green or clean power. If allowed, it will contribute to global warming.”*

There are clearly significant errors in the calculations undertaken in APP-285 Environmental Statement Volume 4 - Technical Appendices Technical Appendix A15.1 - Lifecycle Greenhouse Gas Evaluation - Rev 1. These have not yet been updated and the proposed Statement of Common Ground with the Norwell Solar Farm Steering Group is a long way from being finalised.

It is considered that the suggested benefits from a net reduction in emissions has not been substantiated by the applicant and is vastly overstated. Indeed, the detailed technical work undertaken by the Norwell Solar Farm Steering Group sets out a robust prima facie case that in fact the development will not result in any net reduction in emissions, but will instead result in an increase in emissions which would undermine the basic principle of the project.

JPAG also notes and supports the position of the Norwell Solar Farm Steering Group in their written representation (REP1-099) that in fact the development would still result in an increase in emissions even if the BESS was removed from the project.

² As explained in APP-285 Environmental Statement Volume 4 – Technical Appendices Technical Appendix A15.1 – Lifecycle Greenhouse Gas Evaluation - Rev 1

Electricity Prices

There is no cogent or substantive evidence to underpin the suggestion that granting consent for the development will directly lead to a reduction in the market price of electricity. The DCO contains no provisions to reduce bills of any people. The price of electricity is subject to market factors, which includes international complexities, taxation factors and is subject to regulation by OFGEM. As such it is naïve and incorrect to say that the development will directly or indirectly lead to a reduction in the overall cost of electricity to consumers.

In the week commencing 5 January 2026, data³ shows that solar amounted only for 1.7% of electricity generation. This week was in the winter period when snow was around in parts of the country for either 1 or 2 days in the week. It also included frosts which rendered solar PV panels relatively useless. As a result, Gas had to produce 43.8% of electricity and increasing solar PV provision will have no impact on the ability to produce electricity when the seasonal weather conditions are unfavourable. It is also at the times of these seasonal weather conditions when electricity demand peaks. This results in a peak in the price of electricity, which on Tuesday 6 January 2026 reached a high of £147.03 per MWh. Adding additional solar PV would have no impact on this peak seasonal demand arising from poor weather nor the peak price spike that occurs.

As an example, in the same week we can look at production at Cleve Hill Solar Park on the Graveney marshes between Faversham and Whitstable, Kent in the UK which started operations in July 2025, and is the largest solar farm in the UK, generating 373MW of electricity from 360 ha of solar panels. In that week, its maximum physical output was 81MW on a single day, just 21.7% of its overall theoretical capacity.

By contrast Staythorpe C Power Station which is a 1,735 MWe gas-fired power station, produced an output of 1,763MW on the same day; thereby being over 100% of its output capacity.

Battery Storage

JPAG notes and supports the position of the Norwell Solar Farm Steering Group in their written representation (REP1-100) that there is no need for the battery storage BESS element of the project. That representation provides useful information on national and local necessity.

The applicant claims that the provision of battery energy storage, co-located with the solar generation is a benefit. However, this fails to acknowledge that the applicant already owns a BESS under construction by Mitie Power & Grid at Staythorpe which they propose to use as part of the grid connection in any event. That BESS scheme due to become operational in 2027 will have a

³ Taken from National Electricity System Operator at <https://www.neso.energy/data-portal>

capacity of 720 MWh, which the applicant has signed an agreement with EDF, under which EDF's Wholesale Market Services team will guarantee a minimum level of income from grid balancing, alongside the project's 15-year capacity market contract. RES has been awarded a five-year operations and maintenance contract for this BESS.

There are also two other permitted BESS schemes (SSE Staythorpe 340 MWh and Kelham Solar 600 MWh) that will connect to the grid at Staythorpe. The need for a fourth BESS scheme in a 2.5km radius has not been demonstrated. The three existing permitted BESS schemes will provide more than sufficient capacity to store all the power generated by the development if permitted.

According to the analysts, Cornwall Insight the connections queue for BESS out to 2030 is 61GW, more than double the respective target capacity range, while the queue out to 2035 is 129GW, more than quadruple what is sought by then by the National Electricity System Operator (NESO). As such there is no clear evidence of need for the proposed BESS scheme. Overprovision of BESS capacity beyond that required by NESO cannot be considered to be a benefit.

The BESS scheme will result in embodied carbon and emissions from manufacturing, transport, installation, and decommissioning. It will also result in additional land take resulting in impacts including reducing food production, increasing HGV traffic, and elevating risks of ecological harm and public safety incidents. Based on statements made by the applicant at the ISH1, the BESS scheme is viewed as part of the income stream for the development rather than being operationally necessary for the development.

As total BESS capacity connecting to the grid at Staythorpe will far exceed the generation from the development, then the proposed BESS will be unduly reliant on overnight charging patterns. Such overnight charging will be likely to increase dependence on gas-fired generation, offsetting any suggested green advantages.

Landscaping

As we identified in ISH1 a significant proportion of the hedgerows and tree planting that are proposed have been identified as being needed to deal with landscape and visual impacts. Therefore, they're not strictly enhancement. They are to make the development acceptable in the first place. Accordingly, they should not be double counted as being a benefit by virtue of being an enhancement when they're actually required for a different purpose. The planning statement does not identify and quantify what tree and hedgerow planting is actually being provided as a benefit.

The planning statement suggests that significant landscape enhancements comprising diverse grassland will occur. It suggests that this includes all the areas occupied by the PV panels. However, this grassland is proposed to be grazed, so it is unclear as to how a management regime will ensure that this grassland becomes diverse grassland. In any event this would only apply during the operational phase of the development and would therefore be a temporary land use, not a permanent land use.

The Natural England document Evidence review of the impact of solar farms on birds, bats and general ecology 2016 (NEER012) concluded: *“The lack of evidence available relating to the ecological impact of solar farms is concerning. It has led to authoritative organisations making speculative arguments and publishing information that on occasion appears to conflict. For conservation organisations to provide sound advice that is coherent and consistent, evidence is needed. The move towards renewable energy sources by many governments is progressive and admirable, however more needs to be done to understand the interaction between these new technologies and the ecology that they are ultimately designed to protect.”*

Natural England as the Government conservation body has not produced any subsequent evidence report based on research. Given the above stated position, a precautionary position needs to be adopted.

The applicant has not provided any examples of operational solar PV projects which are being managed in the same way as proposed. Given that there are operational solar PV schemes in the local area which involve grazed grassland, including at Egmonton, it is reasonable to expect that the applicant could provide documentary evidence to show how the grazed grassland at Egmonton has resulted in the benefits they suggest.

The applicant took members of the public to see the existing Egmonton solar site during the consultation process. As such, although Egmonton Solar Park Ltd is understood not to be a company connected with the applicant, it is plainly a site with which the applicant has had an opportunity to access and assess as being a suitable example of what the development proposes.

Permissive Paths

It is accepted that the draft Development Consent Order in paragraph 18 of Schedule 1 does require the respective permissive route to be provided and open to the public prior to the date of final commissioning in respect of each phase of the development. However, these routes are not to be dedicated as public rights of way and the draft DCO does not require these routes to remain post decommissioning. As such they are temporary routes and not permanent enhancements to the formal public rights of way network.

Biodiversity Net Gain

It is accepted that the draft Development Consent Order in paragraph 8 of Schedule 2 does require the respective BNG mitigation during the operational phase. However, the draft DCO does not require these BNG elements to remain post decommissioning. As such they are temporary measures and not permanent enhancements.

Employment, Training and Education

It is accepted that the draft Development Consent Order in paragraph 17 of Schedule 1 does require the submission of a skills, supply chain and employment plan to be submitted post decision to the LPA for approval. However, there is no requirement in the draft DCO for this employment to be drawn from the local area. The draft DCO does not give any minimum employment numbers, so there is no guaranteed employment.

The planning statement does not set out net employment figures; it makes no allowance for employment lost from agriculture and employment in the wider economy associated with the agricultural supply chain and maintenance.

The applicants in constructing the Staythorpe BESS scheme has chosen to appoint Mitie Power & Grid to construct that scheme. That contractor Mitie Power & Grid combines grid connection services from G2 Energy, Rock Power Connections and ESM Power as well as renewable energy support from Custom Solar.

The applicant has not specified their preferred construction contractor but as they already have an existing commercial arrangement with Mitie Power & Grid it is reasonable to assume that they may become the relevant construction contractor. Mitie has offices in London, Bristol, Glasgow and Northampton, it is not based locally. G2 Energy is based in Buckinghamshire and Rock Power Connections is based in Bromsgrove in Worcestershire. ESM Power and Custom Solar are the closest Mitie subsidiaries being based in Scunthorpe in North Lincolnshire and Chesterfield in Derbyshire respectively.

It is also worth noting that the current vacancies advertised in connection with the Staythorpe BESS through G2 Energy, part of Mitie, are clear that the role is not just at Staythorpe but additionally covers the area of Nottingham, Derby, Chesterfield & M1 Corridor.

In the context of power generation construction, the number of jobs suggested at 180 direct local full time equivalent ('FTE') construction and manufacturing jobs for a 24-month construction period is minimal. By means of comparison the construction of Sizewell C nuclear power station

proposes a peak construction workforce of 7,900⁴ and the proposed Carbon Capture plant at Staythorpe Power Station envisages thousands of additional jobs during construction⁵.

ONS figures⁶ identify that there were 2,054,009 workers in construction in the third quarter of 2025. That reinforces how the scale of construction employment in the development is wholly insignificant in the context of the construction sector.

The operational phase of the development says it would support 19 direct local FTE jobs consisting of operational and maintenance roles for the PV panels and other structures, as well as a further 21 jobs in the wider economy. Again, in the context of power generation the number of jobs is minimal. By means of comparison Staythorpe Power Station has approximately 100 long-term operational jobs⁷.

The ONS estimates⁸ that UK employment in green jobs was an estimated 690,900 full-time equivalents (FTEs) in 2023. It also estimates that UK low carbon and renewable energy economy (LCREE) employment was estimated⁹ to be 314,300 full-time equivalents (FTEs) in 2023. Again, against these figures the scale of operational employment in the development is wholly insignificant in the context of the low carbon and renewable energy sector.

The planning statement also refers to the suggestion of opportunities for skills and training initiatives (apprenticeships; vocational qualifications; STEM education). However, the draft DCO does not contain any provisions to secure any of these elements.

The consultation on the development has sought to make great play of the suggested EG Education & EG Academy proposals. All of these were integral and referred to in documents produced throughout the consultation process by the applicant. However, as the applicant has had to acknowledge these alongside the NG+ measures are not part of the DCO proposals.

JPAG would reiterate that it would be unlawful to give any weight to any of the matters in the suggested EG Education & EG Academy proposals on the basis of the Supreme Court case of *R v*

⁴ Source Sizewell C at <https://www.sizewellc.com/jobs/>

⁵ Source RWE at <https://uk.rwe.com/project-proposals/staythorpe-power-station/>

⁶ Source ONS EMP14: Employees and self-employed by industry at <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/employeesandselfemployedbyindustryemp14>

⁷ Source RWE at <https://uk.rwe.com/project-proposals/staythorpe-power-station/>

⁸ Source ONS Estimates of green jobs, UK: July 2025 at <https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/experimentalestimatesofgreenjobsuk/july2025>

⁹ Source ONS Low carbon and renewable energy economy, UK: 2023 at <https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/finalestimates/2023>

Resilient Energy Seven Day Limited and Forest District Council 2017, which is cited in paragraph 25 of our relevant representation, RR-101.

NG+

It is noted that version 2 of the planning statement (REP1-018) no longer refers to NG+ as a planning benefit. This recognition by the applicant which follows their acknowledgement in their written representation (REP1-068) that NG+ measures are not part of the DCO proposals and can be afforded no weight is welcomed. As JPAG has set out previously with regards to NG+, it would be unlawful to give any weight to any of the matters in the suggested NG+ proposals on the basis of the Supreme Court case of *R v Resilient Energy Seven Day Limited and Forest District Council 2017*, which is cited in paragraph 25 of our relevant representation, RR-101.

Q11.1.12 Cumulative landscape and visual assessment

The ExA notes the comments made in relation to cumulative landscape and visual assessment by the applicant [Appendix 3 of REP1-068] and NSDC [REP1-075 and REP1-076], and the comments of other parties (for example REP1-091 and [REP1-087] and others e.g. [RR-194]), as well as preliminary progress made in the SoCG [REP1-051]. Specifically, concerns are raised about the landscape and visual impacts of the proliferation of large scale solar across Nottinghamshire and Lincolnshire, particularly associated with the River Trent corridor.

To progress consideration of the issues raised, comments from all parties are invited in relation to the following points:

- a. The applicant's position is that other consented projects and the effects arising from them should be considered as part of the baseline, that is the landscape present now. This is based on the applicant's assessment of the relevant regulations, policy and guidance relating to the principles and purposes of cumulative landscape and visual assessment (set out in Appendix 3 of REP1-068). Views are sought on this interpretation of how other existing and, or approved development, including existing plans and projects that are 'reasonably foreseeable' but not yet consented should be treated.*
- b. If, as is suggested, the applicant's LVIA has not considered the potential impacts across the wider landscape character areas than that covered by the proposed development, how is it suggested that this should be addressed?*
- c. Whilst the applicant and NSDC have agreed that the LVIA does consider sequential views at the site level, it is suggested that consideration has not been given to the movement of people across the wider landscape [LIR [REP1-075] para 8.34]. This point is raised by other IPs (e.g. Norwell solar ISH1 summary [REP1-098]). In this regard the GLVIA3 guidance sets out that sequential views can occur when the observer has to move to another viewpoint to see the same or different developments [Annex A of REP1-068]. These can be 'frequent' sequential,*

where features appear regularly, or ‘occasional’ sequential, where there are longer time lapses between occurrences due to distance or speed of travel. If, as is suggested, that such considerations have not been adequately addressed in the applicants LVIA, how should this be addressed?

Sequential Views

In ISH1 we raised concern that the general approach of identifying the zones of influence is really not sufficient. The encircling effect and the clustering needs to be properly considered as part of this.

On the point about the regularity of experience, what is commonly called the sequential views, because where we are, there are very limited, crossings across the River Trent. So, there are some settlements where people will never be able to leave their village, and particularly places like Averham and Kelham, without going through the development.

As a Landscape Institute Technical Note¹⁰ highlights, GLVIA3 (at paragraphs 3.28-3.30) allows for two approaches to combining judgements to come to a judgement of overall effect. One is the ‘sequential combination’ methodology whereby susceptibility to change and value can be combined into an assessment of sensitivity for each receptor; size/scale, geographical extent and duration and reversibility can be combined into an assessment of magnitude for each effect; and magnitude and sensitivity can then be combined to assess overall significance. The other approach is the ‘overall profile’ methodology whereby all the judgements against the individual criteria can be arranged in a table to provide an overall profile of each identified effect, taking an overview of the distribution of the judgements for each criterion to make an informed professional assessment of the overall significance of each effect. Judgements on susceptibility and value feed into both approaches.

Specific guidance on assessing sequential effects is limited. Although for a different form of renewable energy, Nature Scot has produced specific guidance¹¹ on sequential views for onshore wind.

That guidance states:

“Sequential visual assessment and selection of routes for analysis

¹⁰ Technical Guidance Note LITGN-2024-01 Published August 2024 - Notes and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment Third edition (GLVIA3)

¹¹ <https://www.nature.scot/doc/guidance-assessing-cumulative-landscape-and-visual-impact-onshore-wind-energy-developments#Selecting+viewpoints+and+assessing+fixed+positions+for+cumulative+visual+impacts+>

Routes to be assessed should be defined and agreed with the Planning Authority as part of the baseline LVIA. The extent of these study routes should be informed by the 60km search area base plan drawing and the cumulative ZTVs. They may extend beyond this in some situations, for example particularly important or busy travel routes, or particularly sensitive locations.

A “journey scenario” should be considered for routes that may have significant cumulative impacts, and the description of available views and how these may be affected by the proposal may note:

- direction of view (‘direct’, ‘oblique’, ‘aligned on route’, or ‘looking NW of route’ etc.);*
- distance from nearest turbine; and*
- distance over which the effect would occur.*

It can also be helpful for the assessment to identify the likely duration of the predicted effect. For example, ‘assuming an average speed of travel ‘x’, this effect will be apparent for approximately ten minutes between 8 and 12 km from the nearest turbine’. The journey scenario can be illustrated in various ways as described in ‘illustrative methods’ below.”

That guidance goes on to state:

“Sequential impacts can also be illustrated in several ways:

- plan showing visibility of different projects from a route denoted by coloured arrows on mapped base;*
- diagram showing visibility of different projects from a route. This could take the form of a colour-coded timeline linked to the colours used in the ZTV;*
- table showing predicted visibility by length of route affected by each project, including commentary text on every 10km explaining where each project is visible and the nature of this visibility;*
- colour coded sequential bar chart or “timeline” showing distance, duration of view and whether it is direct, oblique, screened, etc., with the colours for each wind farm matching those used in the ZTV. An analysis of the significance of such quantitative data is needed.*

Computer generated moving images (“drive throughs”) or videomontage techniques may also be appropriate to assist CVIA, particularly in respect of cumulative sequential impacts. This technique may be particularly applicable to assessment from moving receptors such as trains or ferries or in assessing wind farm extension applications where different turbines with different heights and rotor speeds are being used.”

In relation to the development, there are numerous locations where both frequent sequential and occasional sequential views will be seen.

In our written representation (Rep1-093), JPAG has provided plans showing other permitted and proposed schemes overlaid on the base mapping of the development. This was done to aid the understanding of cumulative impact. These composite plans that we have produced also assist in helping to understand where sequential views of the development and other permitted projects are likely to arise.

JPAG considers that sequential views need considering along the following roads as a minimum:

- Staythorpe Road/Averham Relief Road - from Rolleston to Averham
- A617 - from Kelham to Hockerton
- Broadgate Lane - from Kelham to Averham Park
- Cold Harbour Lane - from Averham Park to A616
- Caunton Road - from Hockerton, through Knapthorpe to Caunton
- Maplebeck Road and Newark Road - from Caunton, through Maplebeck to Eakring
- Winkburn Road - from Winkburn to Maplebeck
- Maplebeck Road and Kersall to Laxton Road - from Maplebeck through Kersall to A616
- A616 - from South Muskham to Kneesall
- Kneesall Road (a.k.a as Kersall Road) - from A616 to Kneesall Wood
- Norwell Woodhouse Road - from Norwell Woodhouse to Kneesall Wood
- Ossington Road/Kneesall Road/Main Street/Carlton Road - from Kneesall through Ossington to Carlton on Trent
- Moorhouse Road - from Ossington through Moorhouse to Egmanton
- Sutton Road/Ossington Road - from Sutton on Trent to Ossington
- Carlton Lane/Norwell Lane - from Carlton on Trent to Norwell
- A1 - from Egmanton to North Muskham

JPAG also considers that sequential views need considering along the following railway line as a minimum:

- East Coast Mainline - from Newark to Tuxford

In addition, JPAG considers that sequential views need considering along the various public rights of way within the order limits and the other approved schemes. This is a list which is too extensive to list.

The development in itself and combination with other permitted schemes would in particular have a concentrated impact on the following broad areas:

- Staythorpe, Averham, Kelham and Averham Park
- Averham Park and Knapthorpe

- Maplebeck and Kersall
- Carlton on Trent and Sutton on Trent
- Ossington and Moorhouse

Q11.1.13 Cumulative landscape and visual effects: Kelham Solar Farm

ES Chapter 7 [APP-050] section 7.9.2.1 sets out that in terms of the effects on landscape character, if the now proposed [and now consented] Kelham solar farm were present there would be a reduction in the extent of changes to landscape character, with the effects of the proposed development being slightly reduced. Similarly at section 7.9.2.2 it is suggested that at viewpoint 45 on the A617/Trent Valley Way, the scale of change arising from the development would be negligible as the foreground of this view would be occupied by this Kelham solar farm. A similar scenario is set out on the appellant's Cumulative landscape and visual technical note [Appendix 3, para 4.10 of REP1-068].

All parties are asked to comment on the implications of these conclusions

JPAG considers that the impact of Kelham Solar Farm adds to the concentration of development and the cumulative impact of Kelham in conjunction with the development includes the spatial extent of the various consented and proposed renewable energy proposals. As with the issue of openness assessment in a Green Belt context there is two interrelated dimensions namely a spatial dimension and a visual dimension. Although we are not in the Green Belt, considering the principle of both a spatial dimension and a visual dimension to assessing cumulative impact appears to be appropriate.

The development proposes to have the BESS and 400kV substation on the rising land. The land rises from the valley height of 13m AOD to a height around 22m AOD. This will mean that in viewpoint 45 the proposed BESS and 400kV substation will be fully visible above the Kelham Solar Farm PV panels. This will draw the eye to the distance, and the rising topography will emphasise the 1.7km combined depth of both schemes from viewpoint 45.

The development in combination with the existing permitted projects in the Staythorpe, Averham, Kelham and Averham Park area will result in an area measuring 3.5km north to south and 1.8km east to west being covered by the various renewable energy proposals. This will increase the concentration in this area that needs to be fully considered, alongside the other areas where the development in itself and in combination with other schemes is already having a cumulative and concentrated impact.

Put simply, the argument that the applicant is seeking to pursue would be if it were a power station arguing that because 4 cooling towers already exist, a further 4 cooling towers doesn't really have any impact at all. Whereas in fact there is an additional impact in both spatial and visual terms.

The now approved Kelham Solar Farm in combination with the development will have a cumulative impact in both spatial and visual terms.

Q.13.1.6 Sustainable drainage system design

The ExA notes within the FRA [APP-228] that a specific sustainable drainage system strategy is not included for works 2 (as this is underground cables only), 3 (as this is for soft landscaping/ ecological enhancement only with no above ground infrastructure), 6 (as this is the existing National Grid substation), 7 (as this has not yet been constructed) or 8 (access improvements).

- a. To all IPs - Can you provide any concerns over the omissions of sustainable drainage system features from these works areas?*
- b. To the applicant - On the basis that the applicant proposes to utilise the existing sustainable drainage system features in work area 6, or future in work area 7, can the applicant confirm how the design of these sustainable drainage system features has considered the proposed development, and how the proposed development will integrate with these?*

JPAG is concerned that there is no specific sustainable drainage system strategy included for works 2 (Cables - underground cables only) and for works 8 (Access improvements).

It is accepted that works 3 (Mitigation/Enhancement) involve soft landscaping and ecological enhancement so will have limited impact on surface water flows. It is also noted that works 6 (Modifications at the existing National Grid substation) and works 7 (Modifications at the Staythorpe BESS) are already assessed in the Flood Risk Assessment because these areas fall within the fluvial flood zones.

JPAG notes that the cable works will disturb land but may actually offer the potential for enhanced sustainable drainage through large scale percolation which could be a benefit in some areas if incorporated.

In the area covered by the order limits the issue of pluvial flooding from surface water run-off is a significant issue. In terms of access improvements, we are aware from local knowledge and the surface water flood maps of numerous examples where surface water run-off from fields along existing field gates and along roads is a principal source of surface water flooding.

JPAG notes for example the representation of Pamela Gladwin (RR-169) includes photos showing surface water run-off from a field gate to be used as an access for the development (SA13 & SA14). The photos show the surface water run-off flowing from the field gate along the public highway and into the property known as Mainwood Farm.

Locations where access points involve high or medium risk of pluvial flooding appear to potentially include PA1, PA6, PA9, PA19, SA1, SA2, SA3, SA9, SA12, SA13, SA14, SA15, SA16, SA19, SA23 and SA24. Given that this is a significant number of the potential access locations, not fully considering this as part of a sustainable drainage system strategy appears to be a significant omission.

Existing access points onto the public highway are proposed to be used, some upgrades and new access points are required. The access works will include the creation of new access points from public highways and other road works, including temporary changes to street furniture, road widening, installation of passing places, and vegetation cutting to ensure there is sufficient visibility at the access points for the safe flow of traffic. It seems to JPAG that all of these works really do need to include sustainable drainage measures.