

# Proposed Solar Development on Land Between Hawksworth and Thoroton

## **Town and Country Planning Act 1990 Appeal under Section 78**

by

By Renewable Energy Systems (RES) Ltd, against the decision of Rushcliffe Borough Council (as local planning authority) to refuse planning permission for the installation of renewable energy generating solar farm comprising ground-mounted photovoltaic solar arrays, together with substation, inverter stations, security measures, site access, internal access tracks and other ancillary infrastructure, including landscaping and biodiversity enhancements

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## **Review of RBC's Solar Farm Landscape Sensitivity and Capacity Study**

Written statement prepared by

**Carly Tinkler** BA CMLI FRSA MIALE

on behalf of

**Hawksworth and Thoroton Action Group (HTAG)  
(Rule 6(6) Party)**

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**12<sup>th</sup> July 2024**

**Planning Inspectorate Reference: APP/P3040/W/23/3330045**

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## 1. Introduction

- 1.1 During the Appeal process and Inquiry, mention was made of an emerging '*Solar Farm Landscape Sensitivity and Capacity Study*' (SFLSCS) that was being carried out by Arup on behalf of Rushcliffe Borough Council (RBC). The study would be used as 'a tool for future plan-making and decision-making', and it was considered likely to be relevant to the assessments of the landscape and visual effects arising from the Appeal scheme.
- 1.2 In his Inquiry note of the 17<sup>th</sup> of June, at item 8, the Inspector said that '*If RBC's emerging solar farm capacity study is published prior to 1 August the parties will submit a written statement setting out any considerations relevant to this appeal. These statements should be sent to PINS and the other parties no later than 7 days after the publication of the study. If the study is published after 25 July the parties should, if possible, submit a written statement, or alternatively present their case orally to the resumed Inquiry. The study and written representations about it would be matters to be considered at a round table discussion at the resumed Inquiry*'.
- 1.3 The SFLSCS was published on the 4<sup>th</sup> of July<sup>1</sup>. The statements would therefore have been due on the 11<sup>th</sup> of July, but the Appellant suggested, and PINS agreed, that they could be submitted on the 12<sup>th</sup>, along with other material requested by the Inspector.
- 1.4 I have reviewed the SFLSCS; this report sets out what I consider to be the matters of most relevance to the assessment of the landscape and visual effects arising from the Appeal scheme.
- 1.5 I note the wording on the front cover of the report, which states that '*This report... is not intended for and should not be relied upon by any third party*', but assume this has been taken into account for the purposes of this exercise.
- 1.6 I also note that the SFLSCS report is dated the 10<sup>th</sup> of May 2024. It is not clear whether this version reflects any revisions made between the 10<sup>th</sup> of May and publication, for example, as a result of any consultation which may have been carried out.
- 1.7 In addition, the report begins with the statement, '*The benefits of renewable energy production and storage are well known and widely accepted*'. In my opinion, this should be balanced by a statement explaining that the adverse environmental and other effects which can arise from the types of solar development which are the subject of the SFLSCS, and proposed by the Appellant (ie large-scale, ground-mounted, in rural areas), are also *well known and widely accepted*.

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<sup>1</sup> Ref: RBC-ARUP-ZZ-XX-RP-L-XX-0001

## 2. SFLSCS Method

- 2.1 The SFLSCS method (Appendix A) 'primarily draws upon' Natural England's 2019 publication *An approach to landscape sensitivity assessment – to inform spatial planning and land management*.
- 2.2 I agree with the SFLSCS that this is 'the most relevant and recently published approach in relation to spatial planning accounting for landscape sensitivity at a strategic level. This guidance document allows a more strategic assessment of landscape sensitivity, often across a very large area, with regard to the principle of a particular type of change scenario'.
- 2.3 I also agree with the use of the 3<sup>rd</sup> edition of *Guidelines for Landscape and Visual Impact Assessment (GLVIA3)* as an appropriate tool for the SFLSCS (indeed, for Landscape Sensitivity and Capacity Assessment (LSCA) generally, as when assessing capacity, it is necessary to factor in the nature, range, extent, and scale of the effects likely to arise from the type of change proposed, how they might be mitigated, and where there may be opportunities for restoration / enhancement).
- 2.4 The SFLSCS refers to other guidance, clarifications, and technical notes; again, I agree that these are relevant, although there are recognised problems with some of the suggested methods set out in the Countryside Agency and Scottish Natural Heritage's *Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity, a discussion*.
- 2.5 Indeed, I agree with the SFLSCS's comment about there being ongoing confusion around the terms 'sensitivity' and 'capacity' (I was a member of a Natural England and Landscape Institute working group set up to discuss the matter). Given the current absence of published LSCA guidance, I also agree with the importance of applying professional judgement.
- 2.6 Another important factor is transparency, particularly in terms of techniques, assumptions and reasoned justifications – see below.
- 2.7 The SFLSCS study area is 'defined as the borough boundary of Rushcliffe'.
- 2.8 The SFLSCS divides the study area into a number of Landscape Assessment Units (LAU), each of which covers areas with 'broadly similar characteristics', and which vary considerably in size. The LAUs are derived from the Draft Policy Zones (DPZs) identified in Nottinghamshire CC's 2009 *Greater Nottingham Landscape Character Assessment (LCA)*, these being local character areas which are based on NCC's identified Regional Character Areas (RCAs).
- 2.9 All the landscape consultants / witnesses involved in this Inquiry use the 2009 Greater Nottingham LCA in their assessments.

- 2.10 The Appeal site lies within the South Nottinghamshire Farmlands RCA. Both the 2009 LCA and the SFLSCS categorise the relevant DPZ / LAU as Aslockton Village Farmland (LAU K in the SFLSCS).
- 2.11 Whilst some of the DPZ boundaries were 'refined' during the SFLSCS process, the report states that with regard to LAU K, *'The urban extent of Bingham has extended north since the Greater Nottingham Landscape Assessment was published. This extension has been acknowledged, however, as the settlement is located within a much wider overall character area no change is proposed to the boundary of the existing DPZ'*.
- 2.12 The location and extent of LAU K is shown on page 41 of the SFLSCS report, and Figure C3. The LAU covers c. 10,000ha, and is described in the SFLSCS as being 'very large' (in the context of the study).
- 2.13 I found it difficult to ascertain the location of the Appeal site from the SFLSCS plans, so for ease of reference, marked the approximate boundaries of the LAU and the site onto both 1:25,000 OS map bases, and Google Earth (see overleaf).

Approximate boundaries of LAU K and Appeal site marked on Google Earth (white and yellow respectively)



- 2.14 In SFLSCS Section 3.3, a summary list of 'typical' solar development 'features' is provided. Whilst I agree with the features listed, a) the list it is not comprehensive, and does not explain the cause and nature of some of the effects likely to arise, which should be factored into predictions / judgements about 'the magnitude of the predicted change' (see for example Section 4.2 in my proof of evidence (PoE)); and b) it has been assumed that '*Infrastructure including small-scale buildings for invertors, sub-stations or power storage facilities would 'typically' be 'up to 3m in height'*'; however, it must be borne in mind that most applications include DNO substations, which normally include 15m tall masts, and – as is the case here – sometimes require new pylons to connect to the National Grid. Evidently, the landscape and visual effects of taller structures are highly likely to be experienced over a wider area than the SFLSCS has assumed.
- 2.15 As a 49.9MW scheme on a site area of just under 100ha, the SFLSCS categorises the appeal scheme as 'Large' scale (Table 2: Solar farm parameter definitions): this is measured on a 5-point scale ranging from Very small (< 5ha) to Very large (> 100ha). 'Very large' scale projects were excluded from the study: as explained in SFLSCS Table 4, '*Developments of this size are NSIPs [Nationally-Significant Infrastructure Projects] and applications for a Development Consent Order (DCO) are determined by the relevant Secretary of State. They are therefore outside the scope of this study, but guidance on how Rushcliffe Borough Council could engage with DCO applications will be provided*'.
- 2.16 The SFLSCS also notes that '*recent planning applications for solar farm development in Rushcliffe have largely been just below the NSIP threshold at 49.9MW generating capacity*', and also, that '*judgments for large scale (61 – 100ha) developments can be used as a guide to inform decisions for development in excess of 100ha or those which are considered NSIPs*'.
- 2.17 The SFLSCS's criteria for judging levels of landscape value are set out in Appendix A Table 3. This uses a 5-point scale ranging from Very High to Very Low. For some reason, which is not explained, landscape susceptibility to change is treated somewhat differently from landscape value, in that a) factors indicating 'higher or lower' levels of susceptibility are provided but are not set out in an ascending scale, and b) a 3-point scale is used (ranging from High to Low).
- 2.18 SFLSCS Appendix A Table 5 'outlines typical descriptors for each sensitivity type'. This sets out levels of landscape sensitivity on a 5-point scale ranging from Very High to Very Low. However, levels of landscape capacity are set out on a 3-point scale (High to Low) (SFLSCS Table 6). It is not clear why levels of landscape sensitivity are expressed on a 5-point scale, and capacity on a 3-point scale – see next section. Also, no matrix is provided to show how levels of value and susceptibility are combined to establish levels of sensitivity, so for ease of reference, I produced my own (see overleaf). However, this highlights the problems with combining different point scales (ie it can result in different outcomes): Matrix 1 combines 5-point scales, Matrix 2 combines 3- and 5-point scales.

Matrix 1: Combining 5-point scales

		SUSCEPTIBILITY				
		VERY HIGH	HIGH	MEDIUM	LOW	VERY LOW
VALUE	VERY HIGH	Very high	Very high - High	High	High - Medium	Medium
	HIGH	Very high - High	High	High - Medium	Medium	Medium - Low
	MEDIUM	High	High - Medium	Medium	Medium - Low	Low
	LOW	High - Medium	Medium	Medium - Low	Low	Low - Very low
	VERY LOW	Medium	Medium - Low	Low	Low - Very low	Very low

Matrix 2: Combining 3- and 5-point scales

		SUSCEPTIBILITY		
		HIGH	MEDIUM	LOW
VALUE	VERY HIGH	Very High or High	High	High - Medium
	HIGH	High	High - Medium	Medium
	MEDIUM	High - Medium	Medium	Medium - Low
	LOW	Medium	Medium - Low	Low
	VERY LOW	Medium - Low	Low	Low or Very Low



### 3. SFLSCS Findings

#### Key characteristics

3.1 The SFLSCS concludes that the key characteristics of LAU K comprise the following:

- Dispersed settlement.
- Modern agricultural landscape.
- Commuter town of Bingham.
- Small woodland blocks scattered throughout.

3.2 *Dispersed settlement* is characteristic of the Appeal site's contextual landscapes, although settlement here is more scattered than in the areas closer to the main towns. Whilst *Modern agricultural landscape* broadly characterises the Appeal site's contextual landscapes in terms of landuse, there is also historic parkland, and many visible remnant medieval landscape features. *Small woodland blocks scattered throughout* is characteristic of the Appeal site's contextual landscapes, although here, they are sparsely scattered. *The commuter town of Bingham* is not relevant to the assessments carried out for the Appeal site, as it lies c. 4.8km to the south west, beyond the edges of the Appeal site assessments' study area, and there is no interinfluence between them.

#### Landscape value

3.3 The SFLSCS concludes that LAU K's level of landscape value is **Medium** (5-point scale), due to a combination of factors including that '*Its value is recognised locally due to its levels of tranquillity, and historic rural villages*' and '*The LAU is relatively well connected by public right of way routes*'.

3.4 My own assessment concluded that the Appeal site and its contextual landscapes' level of landscape value is **Medium to High**, and the SFLSCS's findings do not alter that opinion (NB whilst that is based on the criteria and 3-point value scale used by both Neo Environmental and Pegasus, I concluded that it would also be Medium to High using the SFLSCS's criteria and 5-point scale).

3.5 The reasons for this conclusion are explained and illustrated in detail in my PoE at paras. 3.2.3 – 35, but they principally relate to:

- i) The very high value of the recreational resource (not only to local residents especially in terms of their health and wellbeing, but also to visitors from much further afield, with benefits for the local economy): this occurs within a relatively small part of the LAU, and is not representative of the wider LAU.
- ii) Higher levels of tranquillity than in other parts of the LAU due to distance from larger settlements and road / rail infrastructure.

- iii) The important contribution made by the Appeal site to the setting of heritage assets, and of the assets to the character and qualities of a) the Appeal site, and b) its contextual landscapes (especially church towers / spires – see below).
  - iv) The condition and quality of many of the characteristic landscape elements and features being better than in other parts of the LAU. This is partly due to the lack of urban / infrastructural influences which adversely affect other parts of the LAU, and also to the fact that on the whole, the local hedgerows are very healthy, as a result of a specific form of management which appears only to be typical in this part of the LAU (see my PoE paras. 2.3.9 - 15).
- 3.6 In addition to the above, the SFLSCS states that in LAU K, *'Settlements across the landscape have connections to the wider rural landscape that are valued by local communities and integral to the character of the settlements. Intervisibility between settlements and the immediate environs should therefore be considered **and introduction of urbanising features avoided**'* (my emphasis).

#### **Landscape susceptibility to change**

- 3.7 The SFLSCS concludes that LAU K's level of landscape susceptibility to change is **Medium**, on the basis of its *Rural and tranquil character*. It goes on to say that *'Whilst the distinctiveness of the landform and exposed slopes increase the susceptibility, the modern agricultural landscape and urban influences decrease the susceptibility'*.
- 3.8 My own assessment concluded that the Appeal site and its contextual landscapes' level of landscape susceptibility to change is **High**, and the SFLSCS's findings do not alter that opinion (that is based on the 3-point scale used by Neo Environmental and Pegasus, as well as by Arup, but I have problems with the criteria in all cases).
- 3.9 The reasons for my conclusion are explained and illustrated in my PoE at paras. 3.2.36 – 3.2.47, but they principally relate to the inability of *'the landscape receptor... to accommodate the proposed development without undue consequences for the baseline situation and / or the achievement of landscape planning policies and strategies'* (GLVIA3 para. 5.40), in part due to there being very limited existing development in the study area which is the same as or similar to the proposed development.
- 3.10 Another relevant factor in the difference between the judgements is that LAU K factors in the urbanising influences of Bingham, for example, stating that *'LP1 Policy 21 Strategic Allocation at North of Bingham includes planning applications with permission granted. The applications would introduce industrial development to the north-east of Cropwell Bishop'*. However, neither Bingham nor Cropwell Bishop are relevant to the assessments carried out for the Appeal site, as both lie beyond the study area boundary (respectively c. 4.8 and 9.3km south west of the site), and there is no interinfluence between the settlements and the site.

### **Landscape sensitivity**

- 3.11 The SFLSCS reports that the combination of Medium value and Medium susceptibility results in a **Medium** level of sensitivity. That is logical. However, unusually, no matrix is provided to show the results of combining different levels. Instead, the report states (para. A.1.6.1) that *'The sensitivity of each LAU has been defined by combining professional judgments on the value attached to the landscape and its susceptibility to solar farm development supported by a clear evidence base and written narrative in each case. Table 5 outlines typical descriptors for each sensitivity type'*.
- 3.12 In my own assessment, based on the matrix used by the Appellant's landscape consultants Neo Environmental (Table 1-10 in LVA Appendix B), the combination of Moderate to High value and High susceptibility results in a level of sensitivity **at the higher end of between Medium to High and High.**

### **Landscape capacity**

- 3.13 The SFLSCS concludes that LAU K's level of landscape capacity is **High** (a 3-point scale is used).
- 3.14 As noted above, it is not clear why a 3-point scale for capacity was used when a 5-point scale was used for sensitivity. Clarification of this point would be welcomed.
- 3.15 My own assessment concluded that the Appeal site and its contextual landscapes' level of landscape capacity is **between Medium to Low and Low** (based on the criteria in SFLSCS Appendix A Table 6).
- 3.16 SFLSCS Appendix A explains that *'Indicative capacity... is based on professional judgment with a clear written narrative in each case'*. However, I found both the criteria and the written narrative for the reasoned justification limited, the latter being simply that *'The very large size of the LAU and dispersed nature of settlement affords potential for well-designed solar farm development'*.
- 3.17 Also, it is not clear to me how judgements about the transition from sensitivity level to capacity level were made, and I was unable to find an explanation of whether / how the level of sensitivity influenced the level of capacity.
- 3.18 To assist my review, I analysed the results, comparing SFLSCS Figure C5 Landscape Sensitivity Judgements, and Figure C9 Capacity Judgements Large Scale 61 – 100ha.
- 3.19 The SFLSCS judges LAU K's level of overall sensitivity as Medium, and its capacity as High. In my experience, and subject to professional judgement, Medium sensitivity usually translates into Moderate capacity (or, High sensitivity = Low capacity and *vice versa*), since the factors which are relevant to judgements about capacity should reflect those which are relevant to judgements about sensitivity.

3.20 The SFLSCS appears to be inconsistent in this regard:

- i) The combination of **Medium** sensitivity and **High** capacity occurs in LAUs E, I and K.
- ii) In LAUs B and C, sensitivity is **Medium**, and capacity is correspondingly **Moderate**.
- iii) In LAUs L, M and N, sensitivity is **High**, and capacity is correspondingly **Low**.
- iv) In LAU G, sensitivity is **Low**, and capacity is **Moderate**.
- v) In LAUs F and H, sensitivity is **Low**, and capacity is also **Low**.
- vi) In LAUs A and D, sensitivity is **Medium**, and capacity is **Low**.
- vii) None of the **Low** sensitivity LAUs (F, G and H) have correspondingly **High** capacity.

3.21 In fact, it appears that it is the size / area / 'scale' of the LAU that has primarily dictated its level of capacity, ie larger areas have higher capacity (which may explain the focus on cumulative effects, since as a result, there are likely to be more applications in larger areas than smaller ones). However, in my opinion, the size of the area is not appropriate as a key criterion.

3.22 Furthermore, the factors which the SFLSCS considers relevant to judgements about levels of landscape capacity do not appear to reflect those which are relevant to judgements about sensitivity, which of course, they should.

3.23 It would be helpful if this matter could be clarified.

3.24 Regarding *the amount of existing solar development*, certainly within the 4 – 5km study area established for the Appeal site studies, and as set out in my evidence, there is very little existing solar development, and that which does exist is very small scale. Regarding *the overall scale of the LAU*, I have not assessed the whole of LAU K's landscapes, so am unable to comment about it having the capacity to accommodate *multiple solar farm developments*.

3.25 The Google Earth plan above, marked up with LAU K and the Appeal site boundaries, reinforces the importance of the statement in SFLSCS Section 1.3, that '*The findings of this study do not determine whether planning applications for solar farm development are appropriate but rather provide an indicator of suitability based on likely effects to the landscape by area. Good design requires a thorough understanding of each prospective site and a clear demonstration of the impacts that are likely and mitigation to eliminate or reduce likely effects*'.

3.26 The SFLSCS explains that the study has been carried out, and should be applied, at a 'strategic level'. LAU K covers c. 10,000ha, and is described in the SFLSCS as being 'very large' (in relative terms). The LAU K landscapes do indeed share 'broadly similar characteristics': in fact, all the landscape consultants / witnesses involved in this Inquiry appear to agree that whilst the landscapes of the Appeal site and its immediate surrounds are typical / good representations of the host LAU K, they

also display characteristics and perform functions which are not typical of the wider LAU, and which must therefore be factored in to the more granular assessments required to establish the capacity of specific sites / levels of effects of specific proposals.

- 3.27 The SFLSCS identifies 'Key design principles' for the LAUs: those for LAU K include: '*Settlements across the landscape have connections to the wider rural landscape that are valued by local communities and integral to the character of the settlements. Intervisibility between settlements and the immediate environs should therefore be considered and **introduction of urbanising features avoided***' (my emphasis).
- 3.28 Evidently, that is a highly relevant and important factor in terms of judging the Appeal site's level of capacity.
- 3.29 Another important factor relates to what the SFLSCS calls 'Key design principles'. It explains that '*eight general design principles [were] developed for Rushcliffe... These general principles can be applied to development within all LAUs however, key principles have been picked out for each LAU based on its individual baseline conditions*'.
- 3.30 For LAU K, the SFLSCS concludes that '*Mitigation principles 6 and 7 are therefore considered key to aiding the integration of any future solar development proposals within the LAU*'.
- 3.31 Mitigation Principle 6 is 'Villages in the rural landscape': '*In rural landscapes with villages, solar farm development should be sensitively set back from the settlement edge to minimise visual intrusion and sense of enclosure*'. As explained in my evidence, my opinion is that whilst the Appeal scheme has been set back so as not to be adjacent to the settlements' edges, it would still be visually intrusive when viewed from the settlements, introducing modern industrial-scale development into a rural and very tranquil landscape with visible medieval origins, and would give rise to a sense of enclosure from certain viewpoints.
- 3.32 Mitigation Principle 7 is 'Field pattern restoration'. In relation to this Principle and LAU K specifically, the SFLSCS states that '*Due to areas of fragmented field boundaries within the LAU, opportunities for restoration of landscape pattern should be considered in any development proposals*'.
- 3.33 As explained during the Inquiry, my opinion is that the Appellant's proposed hedgerow restoration plans are flawed, as a) apart from short sections, the proposed hedges are not on the lines of lost hedges, and b) the proposals would in themselves give rise to adverse landscape and visual effects, due mainly to the disruption of the characteristic field patterns.
- 3.34 In my opinion, in addition to Mitigation Principles 6 and 7, of relevance to the Appeal site and its contextual landscapes are:

- Mitigation Principle 2 – Long distance views: *'In flat, expansive landscapes with long-distance views, siting solar development away from recreational routes can help to maintain the sense of openness and retain long distance views'*. In this case, as explained in evidence (see for example my PoE Section 5.4) and discussed during the Inquiry, the Appeal scheme would result in the loss and / or degradation of certain fine long-distance views, for example along the existing bridleways crossing the northern part of the site where relatively narrow, enclosed corridors would be created within the solar park.
- Mitigation Principle 3 – Historic setting: again, explained in evidence (landscape and heritage), and discussed during the Inquiry, the proposed development would adversely affect the setting of Thoroton and Hawksworth Conservation Areas, and their Grade I and II\* listed churches, due to the industrialisation of these rural medieval landscapes.
- Mitigation Principle 4 – Landmarks: as above, but in relation to *'views where there are significant landmarks or key views that are iconic, such as routes into settlements or views of local landmarks. Visual connections with landmarks should be considered and solar farm development sited sensitively to avoid degradation'*. Views along routes into both Hawksworth and Thoroton would be adversely affected / 'degraded', as would views of Hawksworth church tower and Thoroton church spire.

3.35 The above reinforces my opinion that the level of capacity of the Appeal site and its contextual landscapes is higher than assumed in the SFLSCS.

## 4. Conclusions

- 4.1 My review concluded that the level of capacity of the Appeal site and its contextual landscapes is higher than assumed in the SFLSCS (ie it is between **Medium to Low and Low**, as opposed to **High**).
- 4.2 The main reason for this conclusion is based on what is stated in the SFLSCS, in particular:
- a) In the context of the study, the area of LAU K is described as 'very large'. Within it, there are not only localised variations, but also, factors which are not relevant to the part of the LAU within which the Appeal site is located, such as the effects of urbanisation arising from large settlements to the south west, between c. 5 and 9km from the site and with no interinfluence.
  - b) *'Good design requires a thorough understanding of each prospective site and a clear demonstration of the impacts that are likely and mitigation to eliminate or reduce likely effects'*. This involves more granular assessment than is feasible for high-level / 'strategic' studies such as the SFLSCS, in order to identify localised variations in landscape character and / or characteristics / features / qualities which are not typical of the host LAU. In terms of the contribution they make to overall character (and visual / social amenity), such characteristics / features / qualities may be 'positive' or 'negative'. In this case, the variations are largely positive (for example, important contribution to setting of Conservation Areas and Grade I and II\* listed buildings, and to regional recreational resource).
  - c) The SFLSCS states that in LAU K, *'Settlements across the landscape have connections to the wider rural landscape that are valued by local communities and integral to the character of the settlements. Intervisibility between settlements and the immediate environs should therefore be considered **and introduction of urbanising features avoided**'* (my emphasis).

Carly Tinkler BA CMLI FRSA MIALE 12<sup>th</sup> July 2024