

Bishopton Parish Council concerns regarding Cumulative Effects relating to Byers Gill Solar Farm

RWE have not addressed all major concerns in their design approach and either excluded or glossed over issues that the residents of all the parishes find unacceptable.

These issues are a fundamental part of the DCO EIA section and the Cumulative and Sequential aspects of Planning request.

One item applies to this session and is lacking enough of the detail that would allow the residents to make a meaningful response. I therefore suggest the following is generally applicable to Solar Farms and it should be noted that the quantitative measure of increases with size of the farm and cumulative conditions.

The following points require inclusion in any calculation or assessments made in a design and design approach.

In this document, I wish to address the potential for effect interactions and cumulative effects that will occur because of the proposed Byers Gill Solar Farm Scheme.

Effect Interactions

Effect interactions and cumulative effects as commented on below, are all listed in the planning rules and should be the basis of the DCO submission from RWE

The combined effect of several different impacts from a single development, which may collectively result in a new or different environmental effect of greater significance on any single receptor. Individually the effects resulting from these impacts may not be significant, but the accumulation of effects may collectively cause an overall significant effect.

An example could be if the same receptor is subjected to noise, dust, and visual impacts associated with site works during construction works on all sites including those that have current consent from Darlington and Stockton Councils and those sites currently awaiting approval or consent totalling fourteen individual sites.

Cumulative Effects

Where the environmental effects of a single development act together with those of other planned projects and developments within close enough proximity to lead to cumulative effects on the same receptor(s).

This assessment of potential effect interactions and cumulative effects is based on information available at the time of RWE DCO submission. The assessment has been finalised in the Environmental Statement (ES) that has been submitted with the Development Consent Order (DCO) application for the Byers Gill Solar Farm scheme, where the environmental effects of the Scheme and the cumulative developments should have been confirmed. Conclusions in this assessment are therefore preliminary and will potentially be subject to change following RWE carrying out an all-encompassing assessment.

- a) Matters of concern and information required to enable a full and meaningful assessment by objectors,
- b) Consideration of other proposed developments within the area is required, the ES must demonstrate that the thresholds for further assessment are not exceeded cumulatively on relevant [transport] links.
- c) The ES must provide information on the cumulative nature of traffic movements during the operational phases and confirm these projections fall below the relevant thresholds set out in planning guidance. Cumulative operational phase traffic numbers have also not been assessed and should be included in all documentation.
- d) The ES should also show regard to the quantity and quality of land that will be permanently and or temporarily lost to the Scheme and the potential for cumulative impacts at a regional scale with other

plans and projects that result in a reduction of available Best and Most Versatile (BMV) and land graded 3 and 3b.

- e) To avoid doubt the ES should assess the cumulative impact of construction traffic on the Strategic Road Network (SRN) associated with other nearby solar developments as well as committed developments and highway improvements schemes. Bishopton Parish Council, Great Stainton Village Meeting, Darlington Borough Council and Bishopton Villages Action Group are concerned regarding RWE approach to this item in their DCO submission.
- f) If off-site [waste] disposal is required, an assessment of significant effects including intra-cumulative effects should be included within the ES.
- g) The ES should also consider the requirement for cumulative [waste] impacts which should be assessed at decommissioning due to a number of solar farms in the local area also likely to be decommissioned at a similar timescale. Construction (and therefore potential decommissioning) traffic numbers for the
- h) It is considered that [Agricultural Circumstances] is a critical issue for the area especially when considering these proposals cumulatively with other similar proposals.
- i) It is essential that the ES for Byers Gill Solar Farm considers cumulative effects of these known Nationally Significant Infrastructure Projects (NSIPs) specifically regarding impact and loss of agricultural land.
- j) Cumulative Landscape and Visual effects should be assessed, particularly regarding the Whinfield Solar Farm, Long Pastures Solar Farm and Gately Solar Farm, together with the other Ten (10) Solar Farms which are in proximity to each other.
- k) Any cumulative effect assessment should consider the impact on demand for housing by construction workers and the likely numbers of non-homebased workers required across all schemes.
- l) Along with the proposed development, cumulatively, the four proposed solar projects would amount to over 4,150ha of agricultural land, broadly between Brafferton and Bishopton Mill, being utilised by the developer for solar PV arrays and battery storage, along with associated infrastructure such as sub stations. The ES will need to be clear in each chapter, the individual environmental effects, but also the cumulative effects with the other solar projects.
- m) The Heritage chapter also needs to consider the potential for cumulative harm to heritage assets, from other committed developments. This should include the other solar project NSIPs proposed within the area.
- n) As with every chapter, the ES will need to consider the cumulative impact on Ecology, alongside the other three solar project NSIPs.
- o) This section should consider the cumulative effects with the other the three (3) solar project NSIPs (and the effects arising from the loss of over 4000Ha of land to this form of development upon the local population). There are other solar projects which are less than 50MW which should also be included in the cumulative assessment made by RWE.
- p) Furthermore, it is critical that the LVIA addresses the cumulative landscape and visual impacts that will arise with the other thirteen (13) solar project NSIPs.

The development should, considered cumulatively Byers Gill with all the thirteen other thirteen (13) solar projects and 2 No Wind Turbine sites – result in a potential cumulative impact of over 4500 hectares of land between Brafferton and Bishopton Mill, given over to solar and battery storage projects. It is a considered requirement therefore that every topic within the ES, must explicitly address the cumulative effects with other developments, including the other four nationally significant solar projects proposed within the above areas.

It will be impossible to drive on roads from Aycliffe to Bishopton without a view of Solar Panels. Each Site will come into view as you travel the road. Installing 3-metre-high hedge rows to screen the panels will remove the view but introduce a massive visual impact on the residents as they move around the area.

Cumulative Effects

The assessment of cumulative effects arising from the Scheme in combination with other proposed schemes (inter-project effects) is based upon a review of current submitted planning applications as well as a study of planning policy documents.

The cumulative effects assessment methodology is based on The Planning Inspectorate's Advice Note 17 on the assessment of cumulative effects, which identifies a four-stage approach, as listed below, which should be properly utilised in RWE assessment and contain clear adoption of the following Stages noted in the above Advice Note 17

- Stage 1 requirement – Establish the study area and identify a list of 'other development' (the 'development schedule).
- Stage 2 requirement – Identify a shortlist of 'other development' for the cumulative impact assessment.
- Stage 3 requirement – Information gathering.
- Stage 4 requirement – Assessment.

Stage 1: RWE should have established a List of Other Developments Given the scope and scale of the Scheme, the Stage 1 activities should focus on establishing the Scheme's likely Zone of Influence associated with each of the environmental topic areas being assessed within the DOC/EIA. The ZOI (Zone of Influence), should be identified within each environmental topic, which is in line with industry guidance and standards for assessment. This has not been adequately provided/completed by RWE.

Zoi extents for assessment of cumulative effects Environmental Topic Zone of Influence (ZOI) for cumulative effects should address the following, it is apparent that this has not been fully addressed in RWE DOC

- Air Quality (Construction Dust) Assessment extent should be 350 Metres.
 - Cultural Heritage (Designated Assets) Assessment extent should be 3 Kilometres.
 - Cultural Heritage (Non-designated Assets) Assessment extent should be 1 Kilometres.
 - Aquatic and Terrestrial Ecology Assessment extent should be 2 Kilometres.
 - Aquatic and Terrestrial Ecology (International and National Nature Conservation Designations) Assessment extent should be 10 Kilometres.
 - Water Resources Assessment extent should be 2 Kilometres.
 - Landscape and Visual (Cable Route Corridor) Assessment extent should be 2 Kilometres.
 - Landscape and Visual (Scheme Boundary/ Principal Site) 10 Kilometres.
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- Noise – Construction and Operation Assessment extent should be five hundred metres.
 - Noise – Construction Vibration Assessment extent should be fifty metres.
 - Socioeconomics and Land Use (local communities) Assessment extent should be 1 Kilometres.
 - Socioeconomics and Land Use (PRoW, residential properties, agricultural land, local businesses, visitor Assessment extent should be five hundred metres.
 - Environmental Topic Zone of Influence (ZOI) for cumulative effects attractions, community facilities, open space, and development land) Transport and Access Assessment extent should be 5 Kilometres.
 - Local authority planning applications that represent 'major developments', the definitions and thresholds for which are set out in The Town and Country Planning (Development Management Procedure) (England) Order 2015; Not provided/completed or referenced by RWE.

Each development within the List of Other Developments should be reviewed to determine its status at the time of undertaking the DCO assessment and assigned a final status and tier, as per the guidance and levels presented within Advice Note 2: Not Done by RWE

RWE shortlisting process should have included the application of inclusion/exclusion criteria and information presented by the professional judgement of the environmental specialists undertaking the EIA and through engagement with the relevant local authorities. This has not been provided or completed by RWE.

Furthermore, Developments and projects that are already in existence, i.e. those which are now completed and operational, should have been considered and form part of the environmental baseline conditions within which the Scheme will be implemented (and will be treated as such within the EIA). This is not apparent in the DCO that this has been adequately carried out. Similarly, where other developments are expected or planned to be completed prior to Scheme construction, and where the effects of those projects are fully determined, these should also be considered within the environmental baseline adopted in the EIA. This does not appear to have been provided/completed by RWE.

However, no exceptions to this may be made. For example, if any non-EIA development is identified in proximity, large in scale and/or particularly sensitive, this should also be considered for shortlisting. With reference to solar development, given the presence of the Scheme and other solar DCOs in proximity, if any further non-EIA solar development is identified in a ZOI, then this will also be shortlisted.

The Cumulative Developments List should be refined over the course of the EIA and should be finalised in the ES that will be submitted with the DCO application. Comments on this Short List of Other Developments are invited from local authorities to ensure this captures the appropriate cumulative schemes. This does not appear to have been provided/completed by RWE as the other sites have been disregarded in their assessment.

Stage 3: Gathering Information

Following collection of all relevant facts and information, RWE should have reviewed the available information relating to the shortlisted developments and began the process of establishing the details of their environmental effects. RWE should then consider factors including: the Zoi of environmental topics assessed; the planned timescales for construction, operation and (where relevant) decommissioning; and details of their potential or significant effects in producing their Cumulative Assessment. This does not appear to have been provided and or completed by RWE in their assessment.

Stage 4: Assessment

Those developments which meet the criteria set out in the above stages and should be incorporated by RWE into the cumulative assessment. This should involve identifying where effects are likely to occur and assessing the significance of those effects on environmental receptors and resources, considering any mitigation measures. The assessment of traffic-related construction air quality and noise impacts are based on traffic data that includes traffic from other committed developments¹ and are therefore inherently cumulative.

Significance Criteria

A combination of professional judgement and established guidance have been used to confirm the scope of the cumulative effects assessment, and to aid the identification and (where necessary) mitigation of significant effects. It is, abundantly clear that the process of assessing the cumulative effects on the local area, villages and population has not been carried out in accordance with the recommended guidelines and is in fact a clear indication that it was carried out as a desk top study. The priority within the assessment would have been to visit the village and talk to the local population who have knowledge of the area, this was not done. Therefore, there is reasonable to decide that the assessment is not acceptable and contains too many incorrect assumptions to have any validity.

The significance criteria build upon the policy and guidance documents outlined in above, and the general EIA approach methods presented in: EIA Methodology. The terminology for significance of effect differs from the general assessment methodology, so that the significance of cumulative effects can be differentiated.

Combined impacts of the Scheme or cumulative impacts of the Scheme in association with other development upon an individual or collection of environmental receptors can be grade for assessment calculation. The grading would include:

Very highly significant. (Majority of effects including permanent effect on receptors of very high value. in this scheme are in this category)

Highly significant. (Majority of effects including Large adverse effects, where the combined impacts of the Scheme or cumulative impacts of the Scheme in association with other development upon an individual or collection of environmental receptors would be highly significant.

Effects relating to this project would include:

- a) Widespread/largescale for receptors of high value.
- b) Permanent for a receptor or receptors of high value.
- c) Localised for a receptor or receptors of very high value; or –
- d) Temporary for a receptor or receptors of very high value. Moderate (adverse or beneficial) Where the combined impacts of the Scheme or cumulative impacts of the Scheme in association with other development upon an individual or collection of environmental receptors would be significant (positive or negative).
- e) Permanent for a receptor or receptors of medium value.
- f) Localised for a receptor or receptors of high value; or
- g) Temporary for a receptor or receptors of high value. Slight (adverse or beneficial) Where the combined impacts of the Scheme or cumulative impacts of the Scheme in association with other development upon an individual or collection of environmental receptors would be noteworthy but not significant (positive or negative). Effects would be:
- h) Permanent for a receptor or receptors of low value.
- i) Localised for a receptor or receptors of medium value; or –
- j) Temporary for a receptor or receptors of medium value. Neutral Where the combined impacts of the Scheme or cumulative impacts of the Scheme in association with other development upon an individual or collection of environmental receptors would be negligible and not significant (positive or negative).
- k) Combined and cumulative effects that are of moderate, large, or very large significance will be considered significant effects in relation to the EIA Regulations.
- l) Once further information has been gathered about the construction effects and programmes of the developments for inclusion in the cumulative effects assessment, a worst-case year of construction will be defined by determining when there is the greatest overlap of construction with the Scheme.
- m) The cumulative operational assessment will consider the total effects of the Scheme and the other identified developments operating concurrently.
- n) As the Scheme has an estimated design life of 40-60 years, with no predetermined date for decommissioning, it is not possible to predict what developments are planned to be constructed or decommissioned at the same time as the Scheme is being decommissioned. A high-level statement about the potential for cumulative effects during decommissioning should have been provided.

Cumulative Effects During Construction

There is the potential for cumulative effects during construction from fugitive emissions, noise, vehicle movements and dust emissions, etc during decommissioning would be documented within the Framework

from construction activities, and from the movement of construction vehicles on the road network which have not been properly addressed to date by RWE.

Mitigation measures for managing noise, vehicle movements and dust emissions, etc during decommissioning would be documented within the Framework dust emissions during construction should be documented within the Construction Environmental Management Plan, to ensure that off-site impacts are not significant. It is assumed that nearby construction sites, including the solar DCOs, will operate to a similar level of good practice in accordance with their own CEMPs. The cumulative effects of dust generation together noise, vehicle movements and dust emissions, etc during decommissioning would be documented within the Framework with during construction is of major concern to the previously listed objectors and it has not been properly assessed by RWE. If mitigation is to be carried out, then how will it be addressed if the site impacts have not been accurately calculated.

If other developments, particularly the solar DCOs, are being constructed at the same time as the Scheme, there is the potential for the total number of Heavy Goods Vehicles (HGVs) on the road network to cause a cumulative impact on air quality. An assessment of this has not been completed as part of the DCO as construction traffic and plant numbers for the Scheme still need to be confirmed. If potentially significant cumulative effects were anticipated, then it is likely that contractors for the Scheme and solar DCOs would look to co-ordinate and consolidate deliveries to each site, such that significant cumulative effects were mitigated. RWE have not provided any detailed response in their documents to allow the objectors to respond.

Cumulative Effects During Operation

RWE have not anticipated any cumulative effects on air quality, noise, vehicle movements and dust emissions, etc during decommissioning would be documented within the Framework during operation of the Scheme. We would like to know why RWE have taken this stance and scoped many major effects out of the DCO document.

Cumulative Effects During Decommissioning

As the Scheme has an estimated design life of 40years (excluding De-Commissioning and removal of plant/equipment), it is not possible to predict what developments would be being constructed or decommissioned at the same time as the Scheme is being decommissioned. Broadly, however, the effects of decommissioning are likely to be similar to those experienced during the construction stages. Mitigation measures for managing noise, vehicle movements and dust emissions, etc during decommissioning would be documented within the Framework Decommissioning Environmental Management Plan (DEMP) and RWE appear to have assumed that any nearby construction decommissioning sites would operate to a similar level of good practice as RWE in accordance with their own CEMPs/DEMPs.

Cumulative heritage impacts

Impacts on our Heritage assets can be either physical or a result of changes to setting. Cumulative physical impacts are where an asset may be physically changed by two or more nearby developments, thus increasing the loss of historic and/ or archaeological material. Impacts on setting result from where the observer can see two or more developments from one key view, or sequential where two or more views are affected.

An observer standing on the castle hill will be able to observe Byres Gill Solar Fram Panels, Gately Solar Farm Panels, Long Pastures Solar Farm Panels, Moorhouse Wind Turbines, Lambshill Wind Turbines, Thorpe Thewles (Cowley Farm) Solar Panels, Whinfield Solar Farm Panels and Wynyard Wind Turbines, HOW much are we expected to endure?.

Significant effects result where the cumulative change results in an erosion to, or total loss of, the ability to understand and appreciate the heritage value of an asset because of multiple impacts.

Suggested reading is Darlington Borough Council documents- Bishopton Village Conservation Appraisal,

This document was prepared and written by Darlington Borough Council when the village was given its Conservation listing. It contains references to the area around the village and its history.

The proposed development won't benefit the local communities. The power generated by the solar panels will go straight to the national grid – this will not be a source of cheap electricity for people living in the vicinity of the solar farm. Residents living adjacent to the sites will have a significant adverse visual impact from the sites, whilst there will also be a loss of the rural amenity of the extensive open views along the footpath and bridleway crossing the site.

Finally, we also object on the basis that there has been no feasible plan identified to decommission the site and as such the land included throughout this proposed development is potentially blighted once the solar farm falls out of use.